

The background features a large, stylized globe composed of a network of white lines and dots, representing a global network. The globe is centered on the right side of the page. The text 'CRIN' is positioned on the left side, with the 'i' in 'CRIN' being a light blue color. Below 'CRIN' is the text 'Clean Resource Innovation Network' in a light blue color. At the bottom left, the text 'Annual Report' is in a large, bold, black font, and 'APRIL 2024 - MARCH 2025' is in a smaller, bold, black font below it.

CRIN

Clean Resource Innovation Network

Annual Report
APRIL 2024 - MARCH 2025

CRIN Leadership



Chair
DOUGLAS FREEL
*Former Managing Director,
ARC Financial Corp.*

This report marks my first as Board Chair. I want to extend CRIN's gratitude to all the volunteers who generously dedicate their time and expertise across Canada. Your commitment is instrumental in driving us forward, and together, we are making meaningful strides toward our vision of Canada as the global leader in cleaner hydrocarbons—from source to end use.

The Canadian innovation ecosystem is at a critical juncture in accelerating the development, commercialization, and adoption of cleantech solutions, particularly in heavy-emitting sectors. CRIN is proud to be a catalyst in this effort and an amplifier of the incredible work of our ecosystem partners and network members.

Our network is fostering connections between solution providers, technology adopters, and support services to fuel commercialization. With your continued support, we will make even greater progress in unlocking innovative solutions to global challenges.



President
JOY ROMERO
*Executive Advisor, Innovation,
Canadian Natural Resources Limited*

This past fiscal year marked an exciting period of growth and achievement for CRIN. In March 2025, we received a \$10-million, 18-month extension from Innovation, Science and Economic Development Canada's Strategic Innovation Fund.

This bridge funding, which extends our operations through September 2027, will support the launch of a new technology competition in the coming year. We are excited to continue advancing the development, commercialization, and adoption of clean technologies that address the unique challenges of Canada's hard-to-abate sectors.

We are also pleased to share that many of the projects funded through our earlier competitions are complete. In this report, you will find a selection of these success stories.

Thank you to the dedicated volunteers and ecosystem partners who drive our network forward. Your passion and collaboration are instrumental in enhancing Canada's energy competitiveness while improving environmental performance. I look forward to our continued success.



Director of Operations
GLEN MCCRIMMON
*Former Chief of Innovation,
Husky Energy*

During the 2024-2025 fiscal year, CRIN had the privilege of showcasing its members' achievements on the global stage. Our participation at COP29 in Baku, Azerbaijan, was a significant milestone. Additionally, we were honored to present at high-profile events such as the Global Energy Show. These opportunities allowed us to engage in valuable discussions, and we were thrilled to welcome many new members to our expanding network.

As we look ahead, the upcoming year promises exciting advancements, especially with the launch of our next competition. With the recent extension of our funding, CRIN is poised to continue strengthening the Canadian innovation ecosystem.

Some of the upcoming key events we are looking forward to participating in are Canada Climate Week Xchange and CERAWEEK. We are excited to build on the momentum of our successes and continue driving progress in the year to come.

Our Purpose

ACCELERATING CLEAN ENERGY INNOVATION

VISION

Canada is the global leader in cleaner hydrocarbons from source to end use.

MISSION

Enable development, commercialization, and adoption of innovative cleaner technology solutions in oil and gas that are applied across Canadian industries and globally reduce emissions.

VALUE PROPOSITION

CRIN, as the Canadian cleantech innovation network of networks, accelerates technology commercialization — we help you get your job done.

STRATEGY

In addition to supporting activities and projects to achieve CRIN's Mission and Value Proposition, CRIN will focus efforts on:

DIGITAL PLATFORM FOR MARKET PULL

- Emphasis on membership tools that deliver value and build on engagement.
- Leverage existing collaboration platforms to enable one-stop-shop capabilities.

CONNECTOR OF CHOICE

- Facilitate connections between innovators and funders
- Utilize Digital Platform for initial technology screening for adopters and funders.

ADDRESSING THE TALENT GAP

- Identify and share opportunities to attract and retain energy talent.

CRIN Values

OUR SOCIAL CONTRACT

DIVERSITY, EQUITY, and INCLUSIVITY: I embrace diversity, strive to create equal opportunity for every person, and I am open to meeting anyone in this community.

FREE HELP: I understand that I will receive valuable help from others for free.

TEAM SPORT: I will create teams to play, dream, experiment, iterate, and persist. I understand mistakes happen. Failing quickly and cheaply are acceptable ways of testing new ideas.

PAY IT FORWARD: I agree to “pay forward” whatever positive benefits I receive. For every introduction I get, I will provide an introduction to another person. For every hour of advice I receive, I will give an hour of advice to someone else. For every risk someone takes with me, I will take a risk with a different person.

FAIRNESS: I will be nice and treat everyone fairly. I will take advantage of no one.

LISTENING: I will bring people together and listen, as none of us is as smart as all of us. I believe in the big tent. I believe we gain strength through diversity.

TRUST: I will give trust to others before expecting to receive trust in return.

HONESTY: I will be truthful and frank. I will break rules and call out elephants in the room.

SHARING: I will open myself to learning from others. I am eager to act to learn. I will share my knowledge in the spirit of the Creative Commons to help nurture learning in others.

ROLE MODEL: I will lead at times and follow at other times. Each person acts as a role model for everyone else. I will live by these ideals and enforce them as a member of the CRIN community.

About CRIN

Across Canada, there is a dedicated group of industries, entrepreneurs, investors, academia, governments, and many others all driving towards the same goal – to develop, commercialize, and foster the adoption of innovative cleaner technology solutions for hard-to-abate sectors.

How will they achieve this ambitious goal? That's where the Clean Resource Innovation Network comes in. You will see tangible examples in this document of how we amplify ideas and expertise, mobilize resources and collaborators, and facilitate connections and partnerships to accelerate commercialization of emerging solutions for global adoption. By identifying industry challenges, we create the right conditions to accelerate the commercialization and widespread adoption of innovative clean technologies.

CRIN is committed to amplifying and supporting the existing networks in the cleantech ecosystem, providing opportunities to collaborate, convene, and collide.

A NETWORK OF NETWORKS

These are just some of the networks and organizations that CRIN connects:



CRIN Named Cleantech Supporter of the Year



CRIN was honoured as Cleantech Supporter of the Year at Foresight Canada's 2025 Alberta Cleantech Awards – a recognition that belongs to our entire community of innovators, collaborators, and members across Canada.

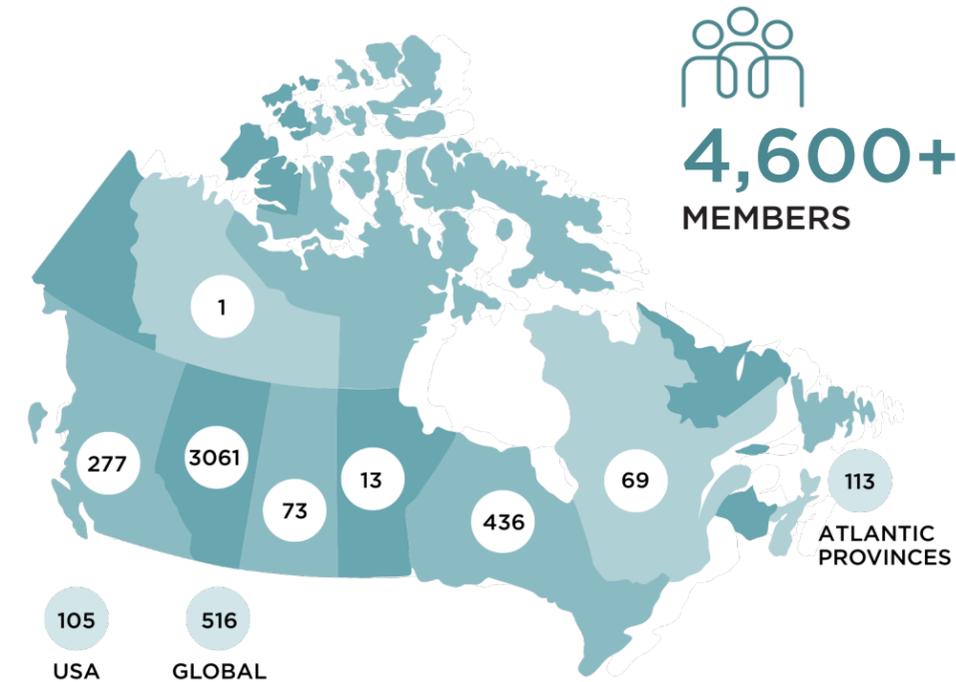
As President Joy Romero shared, "We are a network of networks... our job is to make your job easier in bringing your technologies to commercialization and widespread adoption."

To date, CRIN has supported 41 late-stage and 25 earlier-stage clean technology projects spanning carbon capture, emissions reduction, alternative fuels, and more – with many advancing multiple Technology Readiness Levels and forming international partnerships.



CRIN at a Glance

CRIN ACCOMPLISHMENTS: OUR IMPACT



4,600+ MEMBERS

20 CRIN EVENTS

45+ AMPLIFIED MEMBER EVENTS

150+ VOLUNTEERS

1,800+ VOLUNTEER HOURS



7 TECHNOLOGY THEMES

- CARBON CAPTURE AND VALUE ADDED PRODUCTS
- CLEANER FUELS - REDUCING CARBON INTENSITY
- DIGITAL OIL AND GAS TECHNOLOGY
- METHANE MONITORING, QUANTIFICATION AND ABATEMENT
- NOVEL HYDROCARBON EXTRACTION
- NOVEL LAND AND WELLSITE RECLAMATION
- WATER TECHNOLOGY DEVELOPMENT

CRIN Overview

SUPPORT FOR CRIN'S MANDATE FROM CANADA'S STRATEGIC INNOVATION FUND (SIF)

INNOVATION, SCIENCE AND ECONOMIC DEVELOPMENT (ISED)

- SIF Stream 5 - National Ecosystem Development
- \$110M over seven years (2020-2027)

FOCUS: accelerate technology development, commercialization and widespread adoption to address environmental and economic challenges

PROGRAM OBJECTIVES

- Increase the profitability and competitiveness of Canada's cleaner hydrocarbon sector in the global market.
- Increase technology development to meet Canada's cleaner hydrocarbon needs across the innovation continuum.
- Test, pilot, and demonstrate clean technologies.
- Improve Canada's environmental performance.

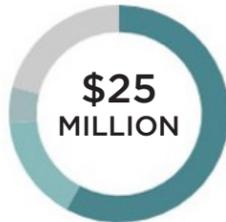
SIF \$110M CONTRIBUTION: WHERE IT'S ALLOCATED

TECHNOLOGY DEVELOPMENT AND DEPLOYMENT



- Three competitions:
 - Reducing Environmental Footprint
 - Low Emission Fuels and Products
 - Digital Oil and Gas
- TRL 6-9
- Technology projects selected with goal to progress to commercialization and widespread adoption.
- Industry pull created by pairing technology developers from small and medium-sized enterprises (SMEs) with oil and gas producer partners.
- Fourth competition is upcoming.

ECOSYSTEM DEVELOPMENT AND SUPPORT



- Technology enablement (TRL 2-9), innovation ecosystem support and development.
- Network administration and management.
- Theme events and awareness, sector engagement, and membership engagement and outreach.
- Competition coordination.

Technology Development and Deployment

COMPETITION SCOPE

<p>DIGITAL OIL & GAS TECHNOLOGY COMPETITION</p> <p>Powered by MaRS</p> <p>FOCUS AREAS:</p> <ul style="list-style-type: none"> • Environmental monitoring • Operational excellence and efficiency • Capital project execution • Health and safety 	<p>LOW EMISSION FUELS & PRODUCTS TECHNOLOGY COMPETITION</p> <p>Powered by FORESIGHT CANADA and DELPHI GROUP</p> <p>FOCUS AREAS:</p> <ul style="list-style-type: none"> • Innovative products from hydrocarbons • Carbon capture and utilization • Hydrogen and geothermal • Low-carbon intensity alternatives and new fuels 	<p>REDUCING ENVIRONMENTAL FOOTPRINT TECHNOLOGY COMPETITION</p> <p>Powered by EMISSIONS REDUCTION ALBERTA</p> <p>FOCUS AREAS:</p> <ul style="list-style-type: none"> • Methane emissions monitoring, quantification, and abatement • Water technology development • Land & wellsite reclamation • Novel hydrocarbon extraction
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Fourth technology competition details to be announced in 2025.

UPDATE (For Fiscal Year 2024-2025)

CRIN-Funded Projects

- **66** projects across seven technology themes
- **33** active projects
- **19** of 25 early-stage projects completed
- **14** of 41 late-stage technology projects completed



CRIN funding was a great accelerator for maturing our technology, helping us bring it to the market and accelerate our revenue growth. Through the project, we were able to secure clients from North America, Latin America, Eastern Asia, and the Middle East!"

DR. REZA TAVAKOLI, P.Eng.
CEO, Avestec

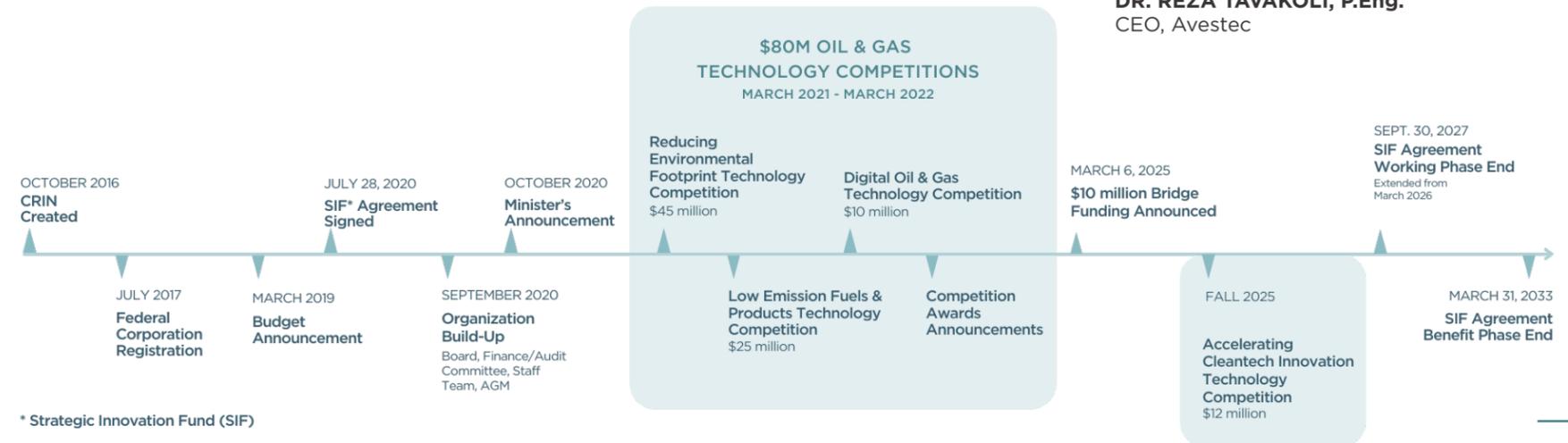
Additional Funding

Following the announcement of \$10 million in bridge funding from the Strategic Innovation Fund in March 2025, CRIN is poised to launch a new technology competition in 2026. Details about the scope and timing of the new competition will be announced in the 2025-2026 fiscal year.

To date, CRIN has funded 41 late-stage and 25 early-stage clean tech projects across five provinces through three technology competitions: Digital Oil and Gas, Low-Emission Fuels and Products, and Reducing Environmental Footprint. These projects focus on areas including carbon capture, emissions reduction, environmental footprint reduction, alternative fuels, and non-combustive use of hydrocarbons.

Many of those projects have advanced two or more technology readiness levels during implementation towards commercialization, and many have begun engaging in international collaborations.

The network has leveraged \$86 million of the original \$100 million of Strategic Innovation Fund funding with private industry and provincial funding sources to achieve a total project investment of \$350 million.



Ecosystem Mapping

CANADA'S OIL & GAS INNOVATION ECOSYSTEM MAP

CRIN's Oil and Gas Innovation Ecosystem Dashboard is an interactive tool designed to provide a comprehensive view of the oil and gas industry's innovation landscape in Canada. The dashboard is aimed at facilitating collaboration, investment, and decision-making by offering insights into ongoing projects, technology adoption, potential funding sources, support services available, and other resources.

Some of the key features of the dashboard-linked stakeholder landscape map include:

- A visual representation of the various players in the oil and gas innovation ecosystem. This includes companies, research institutions, government bodies, and funding organizations that are driving change in the sector.
- A showcase of the innovation landscape.
- The dashboard is interactive, allowing users to drill down into specific areas of interest, such as regions and company sizes. This flexibility makes it a valuable tool for decision-makers, researchers, and entrepreneurs who want to analyze specific aspects of the ecosystem.

Welcome to Canada's Oil & Gas Innovation Ecosystem Dashboard

The CRIN Stakeholder Dashboard represents the culmination of national ecosystem research and analysis into actors and their activities as they relate to Canada's Oil and Gas Innovation Ecosystem as of October 2024. Rather than simply presenting the information in a static database, the dashboard provides a digital tool that displays and filters the data in an organized manner, streamlining users' ability to search for pertinent information. Users are able to filter by province and territory, by stakeholder group, and, within some stakeholder groups, by type of activity or industry.

CRIN
Clean Resource
Innovation Network

Are you looking for....

- Funders
- Innovators
- Adopters
- Support Services
- Talent Builders

INNOVATORS

Submit Feedback / Add Organization

Innovators/CRIN Innovators

Search

Filters

Filter by Classification

- CRIN Innovators
- Innovators

Filter by Province/Territory

- Alberta
- British Columbia
- Manitoba
- New Brunswick

Filter by Company Size

All

Reset Filters

Company Name	Classification	Province/Territory	Company Size	URL
Acceleware	CRIN Innovators	Alberta	Small	
Accurata Inc.	CRIN Innovators	Alberta	Small	
AdvEn Industries Inc.	CRIN Innovators	Alberta	Small	
AEC Industrial Solutions	Innovators	Alberta	Small	
Aerium Analytics Inc.	CRIN Innovators	Alberta	Small	
Air Liquide	Innovators	Quebec	Large	
AlRmarket Inc.	CRIN Innovators	Alberta	Small	
AltaML	Innovators	Alberta	Medium	
Ambyint	Innovators	Alberta	Small	
ARC Resources	CRIN Innovators	Alberta	Large	
Arolytics Inc.	CRIN Innovators	Alberta	Small	
Avatar Innovations	Innovators	Alberta	Small	
Avestec Technologies Inc.	CRIN Innovators	British Columbia	Small	

Ecosystem Development and Support

SECTOR ENGAGEMENT HIGHLIGHTS

After launching four working groups in 2024 representing five sectors, CRIN incorporated the goals and actions of each of these groups into an execution plan for the 2025-2026 fiscal year.

Some of the key priorities are:

ADOPTERS SECTOR GROUP

- Share cleantech innovation project success measures
- Share challenges identified by adopters and understand the barriers to adoption
- Innovation Central upgrades

INNOVATORS & SUPPORT SERVICES SECTOR GROUP

- Host CRIN events such as Project Cafe & other technology showcases
- Innovation Central upgrades
- Creation of a Volunteer Recognition Program

FUNDERS SECTOR GROUP

- Stakeholder identification, initiation, and integration
- Tailored communication and marketing
- Collaborative engagement models
- Convene a dedicated advisory funders group
- Build awareness of investment opportunities
- Innovation Central upgrades

TALENT SECTOR GROUP

- Support young professional event attendance relevant to CRIN themes
- Integrate young professionals into CRIN technology theme groups
- Provide scholarships for young professionals in the Avatar Program and amplify these participants' journey
- Amplify, fund, and participate in events targeted at innovation and STEM for post-secondary students and youth
- Provide young innovators the opportunity to participate in CRIN technology showcases

COMMUNICATION OUTREACH METRICS

- 7,600+** LINKED IN FOLLOWERS
- 4,000+** NEWSLETTER SUBSCRIBERS
51.7% OPEN RATE
- 12k+** NEW WEBSITE USERS
TOP PAGE: EVENTS

SNEAK PEEK

Volunteer Recognition Framework

CRIN's success is driven by the dedication and expertise of volunteers who contribute their time and knowledge to advance clean technology innovation across Canada. From supporting committees to speaking at events, volunteers play a critical role in building connections, supporting commercialization, and accelerating solutions.

To honour these contributions, CRIN is implementing a Volunteer Recognition Framework.

The framework will include three tiers of recognition:

- CRIN Contributor (10+ hours per year)
- Impact Contributor (25+ hours per year)
- Network Leader (40+ hours per year)

Channels of recognition will include monthly volunteer spotlights, a dedicated section on CRIN's website, digital badges, certificates of recognition, and an annual recognition opportunity.

Ecosystem Development and Support

EVENT HIGHLIGHT



In October 2024, CRIN hosted three installments of its Project Cafe event series to showcase the successes of CRIN-funded projects. Twelve innovators celebrated their exciting project milestones and explained their groundbreaking technologies to in-person and online audiences. CRIN funding recipients described the financial support as “instrumental” in advancing their technologies.



SNEAK PEEK

Global Energy Show

CRIN was proud to co-host the **Emissions Reduction Theatre** at Global Energy Show Canada in Calgary from June 9 to 11, 2025, along with the Methane Emission Leadership Alliance and the Trade Commissioner Service.

Highlights at the theatre included a keynote address from Alberta’s Minister of Environment and Protected Areas, technology showcases of CRIN members including Synergraze, Scovan, and Aqua Pure Technologies, a youth innovation panel discussion featuring MindFuel and University of Calgary students, the Energize Innovation Challenge (a contest which saw teams pair up with innovators), presentations about international energy opportunities, and an event about women in energy.



Technology Development and Deployment

TECHNOLOGY ENABLEMENT HIGHLIGHTS



CARBON CAPTURE & VALUE-ADDED PRODUCTS

Technologies focused on the capture or conversion of hydrocarbon raw materials into innovative products of higher value.

Innovation Highlight: Ekona Power | Pilot Deployment of Ekona’s PMP solution for Clean Hydrogen Production

Ekona’s innovative Pulsed Methane Pyrolysis (PMP) technology transforms natural gas into hydrogen and solid carbon while reducing CO2 emissions compared to traditional steam methane reforming processes. Using principles of combustion and high-speed gas dynamics, the pyrolysis reactor efficiently dissociates methane feedstock. This low-cost, scalable solution addresses carbon fouling issues inherent in other pyrolysis platforms and integrates seamlessly with industry-standard balance of plant equipment for hydrogen purification and carbon separation, simplifying industrial adoption.

As part of this CRIN-supported development program, Ekona successfully scaled its PMP reactor and brass-board system at its Burnaby, BC facility, advancing from TRL 6 to 7.

OTHER CRIN-SUPPORTED LATE-STAGE PROJECTS:

- Hyfold Technology Corp.** Stationary Seismic Monitoring **(Completed)**
- New Wave Hydrogen Inc.** A New Wave In Hydrogen Production
- Tourmaline Oil Corp.** Energy Storage and Smart Engine Management System for Gas Plant Power Generation **(Completed)**
- Universal Matter Inc.** Conversion of Carbon Waste Streams to High-Value Graphene via Flash Joule Heating Process
- The University of British Columbia & Merida Labs** Deployment of Low-Cost, Low-Emission Hydrogen Plant from Natural Gas Pyrolysis **(Completed)**

Technology Development and Deployment

TECHNOLOGY ENABLEMENT HIGHLIGHTS



CLEANER FUELS - REDUCING CARBON INTENSITY

Focus Areas:

- Sustainable Aviation Fuels (SAF)
- Hydrocarbon upgrading
- Renewable Natural Gas (RNG)
- Emission reduction / eco-efficiency
- Refinery adaptation

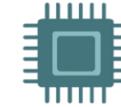
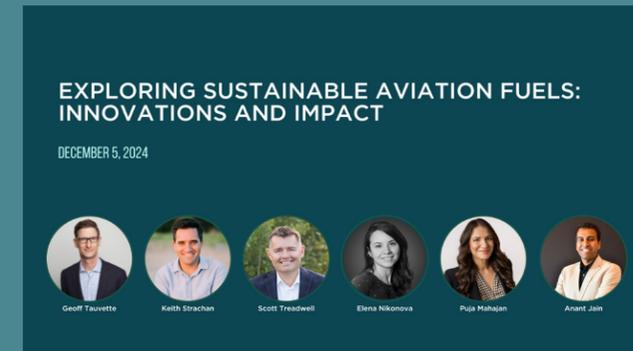
CRIN-SUPPORTED LATE-STAGE PROJECTS:

G4 Insights Inc.	PCH Reactor Scale Up Validation
Hydron Energy	Waste to Fuel: Accelerating Commercialization of the Lowest Cost & Smallest Scale Novel Biogas-to-RNG Upgrading System

EVENT HIGHLIGHT

Exploring Sustainable Aviation Fuels: Innovations and Impact

CRIN and The Canadian Council for Sustainable Aviation Fuels (C-SAF) hosted an insightful discussion on December 5, 2024, featuring leading companies at the forefront of the sustainable aviation fuels (SAF) sector. The well-attended online session highlighted initiatives from Azzera, Skytree, SixRing, and BioFlight Fuels to help advance SAF in Canada.



DIGITAL OIL AND GAS TECHNOLOGY

Digitization technologies of the oil and gas sector improves efficiency, safety, profitability and environmental performance. Real-time monitoring and analysis enables more informed decision making, reduced downtime, automation and lower costs.

Innovation Highlight: Kuva Canada | Machine learning for false positive elimination in continuous methane monitoring with low-cost IR cameras (Completed)

The scope of the project was to enhance the capability of the Kuva false-positive screening solution. The objective was to improve the cost effectiveness of the monitoring service by demonstrating a machine-learning model that eliminates false-positive detections.

Goals were to establish and maintain a cloud-based machine learning environment, to train and refine a cloud-based machine learning model, to migrate the developed model into the production cloud, and to score performance against the current false-positive screening process.

OTHER CRIN-SUPPORTED LATE-STAGE PROJECTS:

Aerium Analytics	Automated Wildlife Detection & RoBird (Drone Ornithopter) Deterrence System
Arolytics	Development and Demonstration of an Integrated Emissions Management Platform
Avestec	Intelligent Robotic Inspection: Contact-Based Inspection using Tethered Flying Robots
Enaimco	Enaimco Operational Twin Development - Terra Nova Pilot Project
Qube Technologies	Emissions Reduction Through Continuous Monitoring and AI
SensorUp	AI Driven, IoT Connected Worker Solution for Better Safety, Productivity, & Environmental Performance
Veerum	Digital Twinning Legacy Facilities - Unified Data for Environments, Safety & Productivity Improvements
VL Energy	Field Demonstration of AI Powered Predictive Emissions Monitoring Systems (PEMSs)



IN MEMORIAM: Heather Herring

1957-2025

Heather Herring was a passionate and visionary leader whose dedication to innovation and sustainability left an indelible mark on Canada's energy landscape. As a professional engineer and respected business leader, Heather brought her expertise and enthusiasm to every role she held.

Her volunteer contributions as co-chair of CRIN's Digital Oil and Gas technology theme reflected her commitment to advancing transformative technologies. Heather also served in key advisory roles, including Chief Advisor, Ecosystem at Intrinsic Innovations, Advisor to the Alberta IoT Centre of Excellence, and Executive in Residence with Foresight Canada and Zone Startups Calgary.

Heather will be remembered not only for her remarkable career but also for her bold spirit, generous mentorship, and unwavering belief in the power of collaboration. Her legacy continues to inspire those working to build a more innovative and sustainable future.

We are deeply honoured to have known and worked alongside Heather, and we extend our heartfelt gratitude for the lasting impact she made.

Technology Development and Deployment

TECHNOLOGY ENABLEMENT HIGHLIGHTS



METHANE MONITORING, QUANTIFICATION AND ABATEMENT

Technologies to detect and monitor fugitive methane emission sources, and to enable reduction of methane emissions, improving operational efficiency and reducing the environmental impact of methane emitters across Canada and globally if commercialized and adopted.

Innovation Highlight: Etalim | Gas Wellhead Remote Power Unit Project (Completed)

The first of two CRIN-funded Etalim projects completed successful field pilots conducted at two independent producer sites, where a five-well and a nine-well pad were powered by Etalim's 1GEN for over 5,675 hours during extreme temperatures, ranging from -35°C to +33°C.

Through the two field pilots, Etalim provided producers with continuous remote insights, including uptime, power consumption, and fuel usage, to help them optimize future wellsite operations and system design. These field pilots demonstrated the efficacy of Etalim's thermo-acoustic technology as a climate solution to power pneumatic devices at well sites and optimize production efficiency without giving up reliability or contributing to methane emissions in the oil and gas sector.

OTHER CRIN-SUPPORTED LATE-STAGE PROJECTS:

AIRmarket	Development and Demonstration of an Integrated Emissions Management Platform (Completed)
Calscan Solutions	Tank Methane Emissions Mitigation with Calscan Hydrocyclone
Etalim	Thermo-Acoustic Wellsite Electrification for Methane Abatement
Ionada	Net Zero Natural Gas Production using Modular Membrane Carbon Capture
Kathairos Solutions	Simple Methane Elimination Using Nitrogen (Completed) and Expanded Scale of Operations
Kinitics Automation	The KVA: A Non-emitting Alternative to Methane Venting Pneumatic Actuators (Completed)
LCO	CROSSFIRE Platform Installation & Commissioning
SensorUp	A cost-effective and accurate end-to-end multi-sensor digital platform for methane detection, quantification, monitoring, reporting, and prediction (Completed)

All methane projects are jointly funded with the Alberta Upstream Petroleum Research Fund (AUPRF).



NOVEL HYDROCARBON EXTRACTION (NHE)

Technology solutions enabling **novel solutions to access and produce hydrocarbons** while decreasing the environmental footprint.

Innovation Highlight: General Energy Recovery Inc. (GERI) | Co-Injecting Steam & Combustion Exhaust Gases to Recover More Oil and Reduce GHG Emissions

The biggest challenge in enhanced heavy oil recovery is getting the oil to flow in the reservoir because of its high viscosity. GERI's DCSG technology is designed to improve heavy oil recovery by combining multiple, proven EOR mechanisms that address both the properties of the oil and of the reservoir.

GERI's Direct Contact Steam Generator (DCSG) is a low-emissions technology that combusts pressurized air and fuel in direct contact with water, resulting in a single product stream of steam (or hot water) mixed with combustion flue gases. Rather than venting the flue gas (CO₂ and N₂) to atmosphere, these products of combustion are simultaneously injected with steam into a well, addressing the two fundamental needs of depleted heavy oil reservoirs: heat and pressure. GERI's technology increases oil production while reducing emissions and freshwater use relative to competing processes.

The GERI DCSG has been previously piloted in selected reservoirs, however this project was an opportunity to demonstrate GERI at a remote field site with limited access to utilities such as freshwater and also with injection into carbonate reservoirs to showcase its wider potential and applicability in Alberta.

OTHER CRIN-SUPPORTED LATE-STAGE PROJECTS:

Acceleware	Electromagnetic Heating Technology (using radio waves) to Heat and Mobilize Heavy Oil and Bitumen (Completed)
Energreen	Testing Nanoparticle-based Foam Technology to Improve the Efficiency of CO ₂ Enhanced Oil Recovery & CO ₂ Storage (Completed)
Cvictus	Mannville Enhanced Hydrogen Recovery Project
Great Northern Power	Improving Natural Gas Field-Compressor Efficiency
InnoTech Alberta	Accelerated Advancement of a Dimethyl Ether (DME) Assisted In Situ Bitumen Recovery Process
SESIO	Non-Aqueous Extraction (NAE) Field Demonstration Unit

Technology Development and Deployment

TECHNOLOGY ENABLEMENT HIGHLIGHTS



NOVEL LAND AND WELLSITE RECLAMATION

Solutions for land management and retirement of inactive oil and gas assets that involve accelerating timelines to closure, reducing costs, and ensuring sustainability in the methods selected for environmental management.

Innovation Highlight: OptiSeis Solutions | EcoSeis Phase 2

During a Project Cafe update on their EcoSeis technology, OptiSeis noted the problem they set out to solve through their CRIN-supported project was seismic cut lines.

To drill wells, an image of the subsurface is required. If the well sites are in a remote, treed area, lines must be cut to safely deploy the equipment. As part of its integrated solution, EcoSeis, OptiSeis looked at making the cut lines narrower and miniaturizing equipment and enhancing the miniature sources.

CRIN was instrumental in 2022 in helping OptiSeis go to the field and verify that with these new designs, subsurface resolution could be maintained. The project has resulted in a 45 to 55 per cent footprint reduction, depending on how the technology was deployed.

EcoSeis has been a very collaborative project through the CRIN network, resulting in direct collaboration with 30 companies and indirect benefits to another dozen companies through the project.

OTHER CRIN-SUPPORTED LATE-STAGE PROJECT:

InnoTech Alberta Testing Alternate Products in Place of Cement for Well Decommissioning and Remediation



WATER TECHNOLOGY DEVELOPMENT

Technologies for water solutions for the oil and gas industry with potential applicability across other sectors.

Innovation Highlight: Scovan | HipVap IFSG Commercial Pilot Demonstration (Completed)

A CRIN and Alberta Innovates-supported Scovan project demonstrated that untreated, produced water can economically be used directly in steam generation with minimal treatment, significantly reducing water treatment costs, freshwater consumption, and waste disposal needs.

The HipVap Integrated Fired Steam Generation (IFSG) Commercial Pilot Demonstration achieved reductions in CO₂ emissions relative to alternative technologies, proving a cost-effective alternative for smaller-scale SAGD operations.

Launched in January 2021, the project set out to accelerate HipVap's Technology Readiness Level (TRL) from 6 to 8 by demonstrating its performance in a live SAGD environment. The HipVap unit was installed and operated at a SAGD facility near Bonnyville, Alberta. The collaborative project resulted in the creation of five new partnerships, including three industry partners. Notably, during the execution of this project, Scovan scaled its operations and grew from a team of nine employees in 2021 to 189 employees by the end of 2024, of which, the CRIN and Alberta Innovates-supported pilot project accounted for 52 full-time equivalent positions. Scovan estimates this technology will lead to the creation of nearly 2,800 new full-time jobs by 2033.

OTHER CRIN-SUPPORTED LATE-STAGE PROJECTS:

ARC Resources and Swirltex	High Saline Produced Water Treatment with Ultrafiltration (Completed)
Carbonix	Tailings Management Through Nano Technologies (Completed)
H2nanO	Solar-Activated Water Treatment to Accelerate Oil Sands Process-Affected Water Return
University of Regina and PTRC	Development Of an Integrated Mobile System (MMS) for Methane Utilization and Produced-Water Treatment

Ecosystem Development and Support

CANADA & BEYOND: COP29 & CANADIAN COLLABORATION

CRIN was honoured to host a pavilion at the 29th UN Conference of the Parties (COP29) in Baku, Azerbaijan, from November 11 to 22, 2024. Our space served as a vibrant centre for showcasing cutting-edge innovations and collaborative strategies to reduce emissions and minimize the industrial environmental footprint.

We hosted 26 impactful events across diverse topics, including:

- Technology showcases
- Methane emission management discussions
- Industrial decarbonization conversations
- Networking sessions
- Policy-focused panels

CRIN was also represented during a panel discussion in the Government of Canada's pavilion at COP29.

Through these activities, CRIN demonstrated its commitment to fostering sustainable practices and accelerating the development and adoption of innovative solutions with tangible environmental and economic benefits.

We received positive feedback on the event, highlighting the pavilion's success in providing valuable networking opportunities, fostering knowledge exchange, and enabling tangible outcomes for participants.



CRIN PAVILION PROGRAMMING @ COP29

26
EVENTS AND PANEL
DISCUSSIONS,
INVOLVING

27
UNIQUE
ORGANIZATIONS,
ENABLING

48
PRESENTERS AND
PANELISTS
FROM ACROSS

4
PROVINCES,
ALL

5
OF CRIN'S SECTOR
GROUPS AND
ALL

7
THEME AREAS
TO SHOWCASE THEIR IDEAS AND
SHARE THEIR KNOWLEDGE WITH

1.2k
VIEWERS FROM
CANADA AND
AROUND THE WORLD

THE CRIN NETWORK GREW BY

30
NEW
MEMBERS

120
LINKEDIN
FOLLOWERS



COP 29 MARKETING AND COMMUNICATIONS

Podcast: CRIN @ COP29

- Episode 1: Justin Riemer, Emissions Reduction Alberta
- Episode 2: Scott Volk, Tourmaline Oil
- Episode 3: Ian Gates, University of Calgary
- Episode 4: Dagmar Knutson, Ten Peaks Innovation Alliance
- Episode 5: Nannette Ho-Covernton, Spartan Controls
- Episode 6: Marc Godin, Petroleum Technology Alliance of Canada



Newsletter: Live from Baku Daily Updates

3000+ Subscribers | 51.3% Open Rate

YouTube: CRIN @ COP29 Pavilion Programming Videos

28 videos | 1,850 Views | 29.4k Impressions



EVENT SNEAK PEEK



CRIN is proud to host a dynamic week of hybrid and virtual events from the Energy Transition Centre in Calgary as part of **Canada Climate Week XChange (CCWX)** from November 24 to November 30, 2025, in collaboration with GLOBE and the ETC Foundation.

This engaging series will spotlight cutting-edge clean technologies emerging from Canada's oil and gas sector—technologies that are helping drive meaningful progress toward a lower-emissions future. As Canada's network of networks in the innovation ecosystem, CRIN is uniquely positioned to lead these critical conversations.

CCWX unites Canadians from coast to coast, fostering collaboration, sharing solutions, and exploring opportunities to address the country's distinct climate challenges.

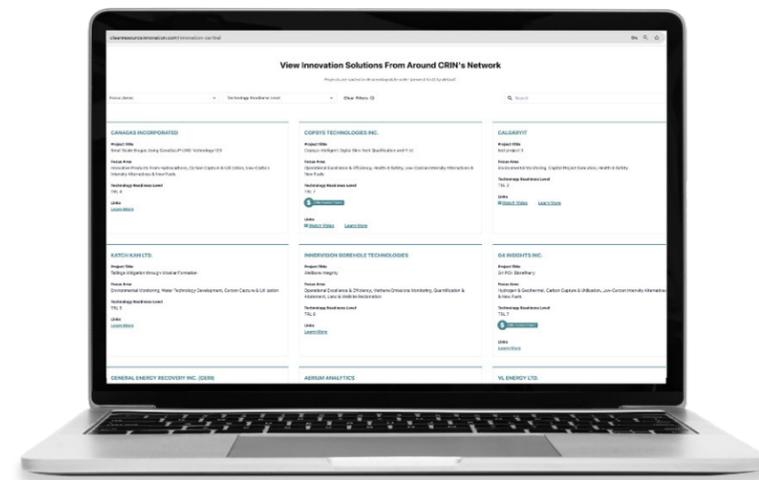


MAKING EMERGING OIL & GAS CLEANTECH SOLUTIONS VISIBLE TO THE NETWORK

Innovation Central is a searchable digital platform for innovators to showcase technology, and for technology adopters and funders to survey and learn more about new technology solutions.

CRIN is exploring enhanced features for the platform, including:

- Detailed badging that helps de-risk the technologies for potential investment.
- Advanced search capabilities.
- Giving adopters an opportunity to access pre-vetted solutions.
- Providing a place for adopters to post about challenges.
- Integrating projects and technologies from partner organizations to amplify Support Services and provide Adopters with a unified platform.
- Potential opportunities to integrate technologies posted by CRIN members to databases in other countries.



EVENT HIGHLIGHT Digital C3 Series

CRIN's digital theme working group launched the Digital C3 Series: Collaboration, Connection, and Conversation in 2024. This event series was designed to unite the digital technical ecosystem and foster a robust community where ideas flourish and innovation thrives. Event topics included Bill C-59 impacts, cybersecurity legislation, data governance, quantum computing, and a showcase of CRIN member BlueMarvel AI.



CRIN Membership HELPING YOU GET YOUR JOB DONE

Becoming a CRIN Member unlocks numerous benefits that will aid your innovation journey. And it's free.

INDIVIDUAL AND ORGANIZATION MEMBERSHIP BENEFITS

- Network with global professionals from across the innovation ecosystem who share similar interests and goals.
- Access CRIN's events calendar to register for industry events and post your own events for exposure to our member directory.
- Utilize CRIN's ever-growing resource library, which houses members-only tools, webinars, presentations, partner materials, and documents.
- Receive the CRIN Newsletter.
- Build your project and organizational profile opportunities through CRIN's digital communication channels.
- Participate in events and panel discussions to share your subject matter expertise.
- Contribute to the collective body of knowledge being developed in CRIN's technology theme discussion groups on LinkedIn.
- Shape ecosystem growth and innovation development through volunteer and collaboration opportunities.



I have participated in the innovation ecosystem as both an operator seeking solutions and also as an entrepreneur developing technology for over 25 years. Having CRIN available to help me connect with people and priorities is critical - it's a great place to contribute, meet others, develop solid working relationships, and to keep in touch with everyone to move solutions ahead.

RODGER BERNAR, P.Eng, eMBA

Managing Director, Archer Business Development Inc.
Tech Theme Lead, CRIN Novel Hydrocarbon Extraction Group



Connect With CRIN



THE ETC @ THE AMPERSAND

112 4th Avenue SW, Suite 500 East Tower
Calgary, Alberta, Canada T2P 0H3



info@crincanada.com



linkedin.com/business/CRIN



www.crincanada.com

JOIN THE CRIN NETWORK!



Financial Statements

STATEMENT OF FINANCIAL POSITION

	March 31, 2025	March 31, 2024
ASSETS		
Current		
Cash	\$ 8,725,123	\$ 9,189,355
Accounts receivable	-	41,226
Prepaid expenses	29,064	6,613
Goods and services tax receivable	8,162	25,901
SIF Claims Receivable	-	3,306,224
Guaranteed Investment Certificate	50,745	16,884
	8,813,094	12,586,203
Equipment	10,730	17,883
Intangible capital asset	117,327	195,546
	\$ 8,941,151	\$ 12,799,632
LIABILITIES		
Current		
Accounts payable and accrued liabilities	\$ 2,827,458	\$ 7,776,810
Deferred contributions	5,357,667	4,404,217
	8,185,125	12,181,027
Deferred contributions related to equipment	10,730	17,883
Deferred contributions related to intangible assets	117,327	195,546
	8,313,182	12,394,456
NET ASSETS		
Invested in intangible assets and equipment	-	-
Unrestricted	627,969	405,176
	627,969	405,176
	\$ 8,941,151	\$ 12,799,632

STATEMENT OF OPERATIONS

	March 31, 2025	March 31, 2024
REVENUE		
Project revenue	\$ 19,699,630	\$ 29,315,033
Amortization of Deferred Contributions to Fund Assets	85,371	42,686
Initiative Support Income	209,680	189,112
Interest earned	364,911	262,200
	20,359,592	29,809,031
EXPENSES		
Project costs - contracts	17,779,836	27,436,313
Contractors related to administrative	1,533,707	1,453,452
Professional services	37,567	34,237
Office expenses	3,861	3,798
Office rent	52,500	52,500
Insurance	16,125	11,165
Communications	(502)	66,431
Information communications technology/IT	26,467	14,237
Amortization	85,371	46,936
Events	550,695	425,539
Meals, travel, and entertainment	15,641	17,985
Training costs	-	4,750
Bank charges	519	448
Bad debts	5,000	18
License and membership fee	30,012	12
	20,136,799	29,567,821
Excess of revenue over expenses	\$ 222,793	\$ 241,210



CRIN Volunteers

In the past year (April 2024 - March 2025), our volunteers contributed enormous passion, effort, and time to grow the network and to accelerate the cleantech solutions that are decreasing emissions and improving the environmental performance of Canada's oil and gas industry. We would like to extend our sincere gratitude.

Senior Leaders Forum: An advisory community of top executives from industry, academia, government, and NGOs represented at the Steering Committee (SC). The Senior Leaders Forum provides strategic guidance on matters critical to CRIN fulfilling its vision.

Scott Stauth, *Canadian Natural Resources Limited (Chair)*

John Adams, *Natural Gas Innovation Fund*

Ron Bailey, *Pacific Canbriam Energy Ltd.*

Lisa Baiton (via Don McCrimmon), *Canadian Association Petroleum Producers (CAPP)*

Evan Bahry, *Energy Connections Canada*

Rob Broen, *Athabasca Oil Corp.*

Stephen Buffalo, *Indian Resource Council of Canada*

Allan Bush, *Tourmaline Oil Corp.*

Neil Camarta, *Field Upgrading*

Allison Cretney, *Energy Futures Lab, Natural Step*

Andrea Crook, *OptiSeis*

Mitch Davies, *National Research Council of Canada, Government of Canada*

Michael Denham, *National Bank of Canada*

Kendall Dilling, *Pathways Alliance*

Iggy Domagalski, *Tundra Process Solutions Ltd.*

Tim Egan, *Canadian Gas Association*

James Fann, *International CCS Knowledge Centre*

Kent Ferguson, *Suncor Energy*

Bill Flanagan, *University of Alberta*

Douglas Freil, *Clean Resource Innovation Network (CRIN)*

Monica Gattinger, *Positive Energy, University of Ottawa*

Patrick Hum, *Innovation, Science and Economic Development Canada (ISED), Government of Canada*

Kevin Krausert, *Avatar Innovations*

Dagmar Knutson, *Ten Peaks Innovation Alliance*

Gurpreet Lail, *Enserva*

Bob Larocque, *Canadian Fuels Association*

Drew Leyburne, *Natural Resources Canada, Government of Canada*

Mike Mahon, *Alberta Innovates*

Megan Nichols, *ECCC*

Trevor Nightingale, *National Research Council*

Joy Romero, *CRIN | Canadian Natural Resources Limited*

Lauren Savoie, *Petroleum Technology Alliance Canada (PTAC)*

Jason Switzer, *Equitable Origin*

Geoff Tauvette, *Canadian Council for Sustainable Aviation Fuels*

Board of Directors: Responsible for the approval of the overall strategy, budget and governance, and for the oversight of operations.

Douglas Freel, *Independent* (Chair)

Joy Romero, *Canadian Natural Resources Limited* (President)

Dagmar Knutson, *10 Peaks Innovation Alliance* (Treasurer)

John Adams, *Natural Gas Innovation Fund (NGIF)*

Catherine Bérubé, *Cycle Capital / Cycle Momentum* (Outgoing 2025)

Andrea Crook, *OptiSeis Solutions*

Monica Gattinger, *Positive Energy, University of Ottawa*

Jim Gibson, *Independent*

Shamus Hardie, *Inter Pipeline / WPC Canada* (Incoming May 2025)

Kendra MacDonald, *Canada's Ocean Supercluster*

Steve Saddleback, *Opimoyaso Group*

Marie Sereneo, *ARC Resources*

Geoff Tauvette, *Canadian Council for Sustainable Aviation Fuels*

Cheryl Trudell, *Imperial Oil Resources Ltd.*

C. Beth (Hardy) Valiaho, *Independent*

John Zhou, *Independent*

Finance Audit Committee: A committee of the Board designed to ensure the integrity of CRIN's financial position by confirming proper controls, accounting, and reporting procedures are followed and that risks are identified and managed.

Dagmar Knutson, *10 Peaks Innovation Alliance* (Chair, Treasurer)

John Adams, *Natural Gas Innovation Fund (NGIF)*

Douglas Freel, *Independent*

Shamus Hardie, *Inter Pipeline / WPC Canada* (Incoming May 2025)

Joy Romero, *Canadian Natural Resources Limited*

Nominations and Governance Committee: A subcommittee of the Board that ensures CRIN fulfills its responsibilities through effective governance practices, policies, and processes with the role to oversee, review, and make recommendations to the Board concerning governance policies and programs, bylaw review and relevancy, board composition, recruitment, succession, and board performance and evaluation.

Joy Romero, *Canadian Natural Resources Limited* (Chair)

Douglas Freel, *Independent*

Jim Gibson, *Independent*

C. Beth (Hardy) Valiaho, *Independent*

Executive Committee: A subcommittee of the Steering Committee (SC), responsible for acting as a liaison between the CRIN SC and the CRIN Board, for providing regular oversight and direction on CRIN activities, and for other responsibilities that may be designated by the CRIN Board or SC members.

Joy Romero, *Canadian Natural Resources Limited* (Chair, CRIN President)

Douglas Freel, *Independent* (CRIN Chair, Board of Directors)

Alain Moore, *Pathways Alliance* (Chair, Membership Engagement and Outreach Committee)

Marie Sereneo, *Arc Resources* (Steering Committee Co-vice Chair, Producer)

Bradley Wamboldt, *Hawk & Squirrel Innovation Inc.* (Technology Enablement Committee Chair)

John Zhou, *Alberta Innovates* (Steering Committee Co-vice Chair, Non-Producer, Incoming June 2024)

Steering Committee: An advisory forum for strategic discussions important to CRIN in achieving its vision. The Steering Committee focuses on exchange of information and positions, and on providing recommendations to the Board for consideration. Volunteers in the Steering Committee reflects CRIN's strategic and operational functions and scope.

Joy Romero, *Clean Resource Innovation Network* (President)

Glen McCrimmon, *Clean Resource Innovation Network* (Chair)

Marie Sereneo, *ARC Resources* (Co-vice chair)

Jason Switzer, *Equitable Origin* (Co-vice chair, Outgoing June 2024)

John Zhou, *Alberta Innovates* (Co-vice chair)

Bradley Wamboldt, *Hawk & Squirrel Innovation Inc* (TEC Chair)

Alain Moore, *Pathways Alliance.* (MEO Chair)

Sandra Aguilera, *Indian Resource Council of Canada*

Derek Armstrong, *Prairies Canada*

Jay Averill, *Canadian Association Petroleum Producers (CAPP)*

Rob Borth, *Alberta Energy Regulator*

Jason Brunet, *Alberta Energy Regulator*

Chris Brown, *Calgary Economic Development*

Debbie Burke, *BBA*

Pascale Champagne, *National Research Council Canada*

Jinwen Chen, *Natural Resources Canada*

Stefan Chiasson, *BDC Capital*

Mike Crabtree, *Saskatchewan Research Council*

Simon Davies, *Canadian Natural Resources Limited*

James Dunn, *Imperial Oil*

Dave Finn, *Energy Research & Innovation Newfoundland & Labrador*

Jim Gibson, *Independent*

Nicole Harbauer, *Global Affairs Canada*

Shelagh Hayes, *Prairies Can*

Owen Henshaw, *Cenovus Energy*

Taylor Hides, *Enserva*

Patrick Hum, *Government of Canada, Industry, Science and Economic Development*

Wes Jickling, *Pathways Alliance, Canada's Oil Sands Innovation Alliance*

Chris Kearney, *InnoTech Alberta*

Kevin Krausert, *Avatar Innovations*

Gurpreet Lail, *Enserva*

Winona Lafreniere, *Indigitech Destiny*

Tonja Leach, *Quest Canada*

Drew Leyburne, *Natural Resources Canada*

Cristina Lopez, *Canada Growth Fund*

Patrick Mattern, *Calgary Economic Development*

Jordan McGill, *William Joseph*

James McKinnell, *National Research Council Canada*

Diana McQueen, *Hatch Ltd.*

Saviz Mortazavi, *Natural Resources Canada*

Anne Naeth, *University of Alberta*

Jordan Patron, *Hatch Ltd.*

Keren Perla, *Energy Futures Lab*

Donna Phillips, *Pacific-Canbriam*

Emmanuelle Plante, *Suncor Energy*

Carmen Rieder, *University of Calgary*

Erin Romanchuk, *Energy Futures Lab*

Lauren Savoie, *Petroleum Technology Alliance Canada (PTAC)*

David Schick, *Canadian Fuels Association*

Mark Scholz, *Canadian Association of Energy Contractors (CAOEC)*

Kunal Sharma, *InnoTech Alberta*

Jason Switzer, *Equitable Origin*

Geoff Tauvette, *Canadian Council for Sustainable Aviation Fuels*

Bryan Trudel, *Avatar Innovations*

Josh Ulliac, *The Transition Accelerator*

Scott Volk, *Tourmaline Oil Corp.*

Dominique White, *Pacific-Canbriam*

SECTOR WORKING GROUPS

CRIN's Sector Working Groups bring together stakeholders from diverse areas of the energy ecosystem to guide engagement plans and provide feedback, ensuring CRIN delivers the support and impact needed for them to succeed. By combining varied experiences, perspectives, and resources, these groups help advance clean technology innovation from concept to commercialization.

Adopters:

Debbie Burke, *BBA* (Co-lead)

Marie Sereneo, *ARC Resources* (Co-lead)

Geoff Tauvette, *Canadian Council for Sustainable Aviation Fuels* (Co-lead)

David Billedeau, *Canadian Steel Association*

Simon Davies, *Canadian Natural Resources Limited*

Francois Desmarais, *Canadian Steel Association*

James Dunn, *Imperial Oil*

Owen Henshaw, *Cenovus Energy*

Tyler Homan, *Tiene Energy*

John Lagasca, *Pembina Pipelines*

Tonja Leach, *Quest Canada*

Charles Nyabeze, *Centre for Excellence in Mining Innovation (CEMI) / Mining Innovation Commercialization Accelerator (MICA)*

Donna Phillips, *Pacific-Canbriam*

David Schick, *Canadian Fuels Association*

Scott Volk, *Tourmaline Oil Corp.*

Dominique White, *Pacific-Canbriam*

Jay Wilson, *Electricity Canada*

Sandra Aguilera, *Indian Resource Council of Canada*

Stephen Arseniuk, *Pathways Alliance*

Jay Averill, *Canadian Association Petroleum Producers (CAPP)*

Rob Borth, *Alberta Energy Regulator*

Chris Brown, *Calgary Economic Development*

Jason Brunet, *Alberta Energy Regulator*

Pascale Champagne, *National Research Council Canada*

Jinwen Chen, *Natural Resources Canada*

Mike Crabtree, *Saskatchewan Research Council*

Dave Finn, *Energy Research & Innovation Newfoundland & Labrador*

Nicole Harbauer, *Global Affairs Canada*

Brad Herald, *Canadian Association Petroleum Producers (CAPP)*

Taylor Hides, *Enserva*

Wes Jickling, *Pathways Alliance, Canada's Oil Sands Innovation Alliance*

Chris Kearney, *InnoTech Alberta*

Patrick Mattern, *Calgary Economic Development*

Jordan McGill, *William Joseph*

James McKinnell, *National Research Council Canada*

Diana McQueen, *Hatch Ltd.*

Alain Moore, *Pathways Alliance*

Saviz Mortazavi, *Natural Resources Canada*

Jordan Patron, *Hatch Ltd.*

Keren Perla, *Energy Futures Lab*

Erin Romanchuk, *Energy Futures Lab*

Steve Saddleback, *Opimoyaso Group*

Lauren Savoie, *Petroleum Technology Alliance Canada (PTAC)*

Mark Scholz, *Canadian Association of Energy Contractors (CAOEC)*

Kunal Sharma, *InnoTech Alberta*

Scott Volk, *Tourmaline Oil Corp.*

Jay Wilson, *Electricity Canada*

Talent Development:

Jim Gibson, *Independent* (Co-lead)

Dagmar Knutson, *Ten Peaks Innovation Alliance* (Co-lead)

Anne Naeth, *University of Alberta* (Co-lead)

Josh Ulliac, *The Transition Accelerator* (Co-lead)

Tyler Engel, *Avatar Innovations*

Monica Gattinger, *Positive Energy*, University of Ottawa

Cait Houston, *Caldwell*

Pat Hufnagel Smith, *Talent4Energy*

Cheryl Knight, *Talent4Energy*

Winona Lafreniere, *Indigitech Destiny*

Micah Louison, *MindFuel*

Membership, Engagement and Outreach Subcommittee (MEOSC): A subcommittee of the SC that manages outreach activities that grow the network and ecosystem, and that garner broad support for CRIN among stakeholders.

Alain Moore, *Pathways Alliance* (Chair)

Sandra Aguilera, *Indian Resource Council*

Maria Gisondo Crawford, *Canadian Natural Resources Limited*

Emily Dickson, *Process Ecology*

Briare Ferguson, *Foresight CAC*

Braden Kimoff, *Petroleum Technology Alliance Canada*

Amanda Lo, *Foresight CAC*

Micah Louison, *MindFuel*

Jordan McGill, *William Joseph*

Steve Power, *Canadian Natural Resources Limited*

Joshua Ulliac, *YP Link, The Transition Accelerator*

Brett Wightman, *CSV Midstream*

Technology Enablement Subcommittee (TEC): A subcommittee of the SC comprised of leaders designated for each of CRIN's seven technology theme areas, TEC identifies the technology challenges and accelerates the development of clean technology solutions and grows the ecosystem while ensuring the CRIN network is active and broadly supported.

Bradley Wamboldt, *Hawk & Squirrel Innovation Inc* (Chair)

Stephen Arseniuk, *Pathways Alliance*

Rodger Bernar, *Archer BD*

Marc Godin, *Petroleum Technology Alliance Canada (PTAC)*

Chris Godwaldt, *Pathways Alliance*

Heather Herring, *Independent*

Nannette Ho-Covernton, *Spartan Controls*

Katie Howes, *Canadian Natural Resources Limited.*

Aurelie Lagisquet, *Independent*

Michael Livingstone, *Independent*

David Schick, *Canadian Fuels Association*

David Van Den Assem, *Alberta Innovates*

THEME WORKING GROUPS

Each of the seven Themes is supported by a working group responsible for furthering the outlined goals and objectives of the Theme.

Carbon Capture and Value-Added Products: Exploration of new opportunities for hydrocarbons, converting hydrocarbon-based raw materials into innovative products of higher value - Hydrogen (H2), Bitumen Beyond Combustion (BBC), Carbon Capture Utilization & Storage (CCUS), Partial Upgrading (PU), Minerals, and Geothermal.

David Van Den Assem, *Alberta Innovates* (Chair)

Stephen Arseniuk, *Pathways Alliance* (Incoming 2024)

Cleaner Fuels – Reducing Carbon Intensity: A cross-sectoral discussion about developing technologies related to cleaner fuels. As the Clean Fuel Standard and related provincial policies are developed and released, this discussion helps companies devise strategies and generate ideas to drive continued innovation in this sector.

David Schick, *Canadian Fuels Association*, (Chair)

Digital Oil and Gas: A community of companies in the oil and gas industry introducing significant cost savings and efficiencies into their operations through the adoption of customized digital tools and flexible solutions.

Heather Herring, *Independent* (Co-chair)

Nannette Ho-Covernton, *Spartan Controls* (Co-chair)

Dave Finn, *Energy Innovation and Research Newfoundland and Labrador*

Ian Gates, *University of Calgary*

Marc Godin, *Petroleum Technology Alliance Canada (PTAC)*

Steve Liang, *SensorUp*

Todd Luker, *Zeel*

Snezhana McIver, *Petroleum Technology Alliance Canada (PTAC)*

Tania Rizwan, *TC Energy*

Shay Sharma, *Petroleum Technology Alliance Canada (PTAC)*

Bill Whitelaw, *Geologic*

Heather Wilcott, *Imperial Oil Resources Ltd.*

Methane Monitoring, Quantification, and Abatement: Community of companies developing and implementing innovative and ground-breaking methane emissions detection, quantification, monitoring, reporting, and mitigation technologies to address methane challenges from upstream, midstream, downstream, and transportation of oil and gas.

Marc Godin, *Petroleum Technology Alliance Canada (PTAC)* (Chair)

Christine Hoepfner, *Petroleum Technology Alliance Canada (PTAC)*

Methane Emissions Reduction Network (MERN) Working Group

Novel Hydrocarbon Extraction: Enables novel solutions for accessing and producing hydrocarbons with less environmental footprint including well architectures/completions and artificial lift in all reservoirs.

Stephen Arseniuk, *Pathways Alliance* (Outgoing 2024) (Chair)

Rodger Bernar, *Petronas Canada* (Chair incoming 2024)

Aurelie Lagisquet, *Independent* (Incoming 2024) (Co-Chair)

Michael Livingstone, *Independent* (Incoming 2024) (Co-Chair)

Claude Ghazar, *Alberta Innovates*

Julie Hawco, *Suncor Energy Inc.*

An Mai, *University of Calgary*

Saviz Mortazavi, *Natural Resources Canada, Government of Canada*

Vicky Qualie, *Northern Alberta Institute of Technology (NAIT)*

Chandhini Ramu, *University of Calgary*

Andrea Sedgwick, *Northern Alberta Institute of Technology (NAIT)*

Novel Land and Wellsite Remediation: Dedicated to cross-sector collaboration, this group is designed to generate discussion on sustainable and cost-effective land reclamation and wellsite remediation strategies.

Katie Howes, *Canadian Natural Resources Limited* (Chair)

Mandy Heynen, *360 Liability Management*

Dallas Johnson, *Alberta Innovates*

Tracy Longpre, *TC Energy*

Wendy Ross, *Pembina Energy Inc.*

Jayne Scott, *Cenovus Energy Inc.*

Lisa Warren, *Cenovus Energy Inc*

Water Technology Development: Advances water technologies for the oil and gas industry and the potential applicability across other sectors. Promotes awareness of how different water technologies are being used at large and small companies throughout Canada.

Chris Godwaldt, *Pathways Alliance* (Chair)

Donna Bilyk, *Southern Alberta Institute of Technology (SAIT)*

Francisco Castrillon, *Innotech Alberta*

Bruce Clements, *Natural Resources Canada, Government of Canada*

Gerald Feschuk, *Nautical Energy*

Neil Fricke, *Suncor Energy Inc.*

John Gibson, *Innotech Alberta*

Steve Herman, *WaterSMART Solutions*

Trish Josephs, *Southern Alberta Institute of Technology (SAIT)*

Philip Lowrie, *ATCO Ltd.*

Lily Malaka, *ATCO Ltd.*

Saviz Mortazavi, *Natural Resources Canada, Government of Canada*

Kent Novakowski, *Queens University at Kingston*

Tara Payment, *Canadian Association of Petroleum Producers (CAPP)*

Brett Purdy, *Alberta Innovates*

Theresa Rahal, *Energy Research and Innovation Newfoundland and Labrador*

Rain Saulnier, *WaterSMART Solutions Brett Purdy, Alberta Innovates*

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CRIN plays a crucial role in bridging the gap between industry and innovation by connecting solution providers with real-world challenges. Their collaborative approach accelerates the adoption of clean technologies, driving impactful change in Canada’s energy sector. Through our partnership, we amplify opportunities that help innovators to scale, industries to thrive, and Canada to realize its potential for a more prosperous and sustainable future.

AMANDA LO

Director, Acceleration | Foresight Canada

Member Engagement & Outreach Subcommittee, CRIN