

carbonNEXT 

Year One Report

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Introduction

[carbonNEXT](#) is Canada's carbontech hub, established in 2021 with [Prairies Economic Development Canada](#) and [Scotiabank](#) as our founding sponsors. Through [Foresight Canada](#), carbonNEXT leverages the country's largest pipeline of emerging cleantech innovators and delivers best-in-class training and mentorship services to streamline the commercialization journey for the next generation of Carbon Capture, Utilization, and Storage (CCUS) solutions. [Carbon Management Canada \(CMC\)](#) provides CCUS-specific applied-research facilities, expertise, and industry connections to further accelerate emissions reductions.

With this foundation, Canada is well-positioned to seize an outsized share of the \$1 trillion per year CCUS market forecast by 2050, while helping our industries achieve net zero. But we must increase the speed in which we bring reliable and cost-effective CCUS solutions to market.

Canada is already a global leader in CCUS. It is home to:

- **Five** of the world's **30** industrial-scale projects,
- **8%** of the global carbon-to-value patent pool
- **One-seventh** of all geologically-sequestered anthropogenic CO₂.
- **Seven** of **60** finalists for the \$100M Carbon Removal XPRIZE are Canadian.





carbonNEXT Footprint

IMPACT STATS

30

Ventures Across 5 Provinces

\$ 5 M +

In Capital Support Raised

500 +

Network Reach

- Supported 30 carbontech ventures across five provinces
- Over \$5M in capital raised by supported ventures
- National network of [13 CCUS technology research and validation facilities launched](#)
- One Industry Innovation Challenge in Direct Air Capture
- Over 500 subscribers to our monthly carbonNEXT newsletter

carbonNEXT 2023 Focus Areas



Addressing CCUS-specific skill needs



Increasing the number of innovation challenges and pitch opportunities



Growing the profile and use of the [Canadian CCUS Research and Technology Network](#)

Learn more: foresightcac.com/carbonnext/

carbonNEXT Program Pillars



COHORT-BASED SECTOR SPECIFIC TRAINING

Cutting-edge, insights into technology needs, end-user and market trends, investor perspectives, and ecosystem opportunities.



ACCESS TO EXECUTIVES IN RESIDENCE (EIR)

Experienced executive advisors (CXOs) with understanding of CCUS business, customer needs, and commercialization pathways.



CONCIERGE ACCESS TO THE CANADIAN CCUS RESEARCH & TECHNOLOGY NETWORK

A national network of CCUS expertise, lab and test-bed facilities, and specialized equipment needed to rapidly validate and progress innovations.



EVENTS & MARKETING TO BUILD DEALFLOW

Insider-only access to relevant conferences, networking, pitch events, and opportunities.



THOUGHT LEADERSHIP

Amplifies the profile of Canada's carbontech innovators and the wider sector to global customers and investors.



INNOVATION CHALLENGES

Enable customer-led commercialization of emerging CCUS solutions to solve industry needs.

carbonNEXT Cohort

carbonNEXT has run two cohorts to date, supporting 29 companies developing CCUS and adjacent technologies. Cohorts run 6 sessions over 3 months and cover topics such as:

- Understanding capture and sequestration needs from key customers in the Canadian utilities, mining, and cement sectors
- Monetizing emission reductions through carbon markets
- Navigating Canada’s network of test-bed facilities and other ecosystem support

“
The carbonNEXT program is a must attend for any carbon start-up!
”
– CO2 Lock Corp

Speakers included representatives from the International Emissions Trading Association, Stripe, Carbon Engineering, Capital Power, and Scotiabank.



Deep-Dive Training Sessions

In November [Heather Herring](#), a Foresight EiR and CEO of Make It So, hosted a series on Grant Writing Support for carbonNEXT ventures covering:

- **A macroscopic view** of the grant industry
- **The Do's and Don'ts** for grant writing
- **A panel discussion** from current and past reviewers

We also offer a 90-minute “cold-eyes” review with expert staff for any carbonNEXT ventures during their grant writing process.

“

Great content and engagement. Also, I appreciated that it was very interactive. Overall, I would highly recommend this training to others. ”

– Attendee

Company Highlights/Success Stories

- Carbon Lock (MB) was selected for backing by the SDTC Seed Fund and was recognized as a finalist in the \$20M Manitoba Food Waste Reduction Innovation Challenge
- British Columbia Biocarbon Ltd (BC) began development of their first full scale commercial plant in Saskatchewan (~\$35M project)
- \$1M XPRIZE milestone winner Planetary Technologies (NS) successfully tested their platform with an ocean outfall partner, validating their quantification protocol for ocean alkalinity enhancement and enabling them to plan for a 90-day pilot in 2023

Building on the successful outcomes from the first year, carbonNEXT had nearly **50** applicants for our 2023 cohort

Executives-in-Residence

Within Foresight's robust 200+ EiR network, carbonNEXT has 40 CCUS-focused EiRs with experience and expertise relevant to CCUS ventures.

In carbonNEXT's first year, our ventures used over **550** EiR hours to develop their technologies. Our goal is to further develop this program by matching a lead EiR with each new company that comes onboard so they have direct 1:1 support from day one.

2022 Events

carbonNEXT hosted eight events to connect the start-ups with customers, investors, and mentors. These included:

Three Innovation Showcases with the Clean Resource Innovation Network (CRIN)

- Connected emerging industrial decarbonisation solutions developers with partners across the Canadian oil and gas innovation ecosystem.
- Drew nearly 500 participants across the three events
- Generated high satisfaction — nearly half of attendees participated in two or more events
- Drove membership growth for CRIN by attracting an audience which was nearly 50% non-members
- Over 98% of participants surveyed indicated interest in attending additional events in this series

Enterprise Singapore CCUS Pitch Event

- 30 participants engaged with seven start-ups over the course of these webinars
- Six start-ups reported follow-up meetings with commercial partners

The October launch of carbonNEXT & the Canadian CCUS Research & Technology Network

- Convened over 130 participants for presentations from Scotiabank and Minister Dan Vandal of Prairies Economic Development Canada

Foresight 50 & Demo Day

- Simultaneous investor-focused events in Vancouver, Calgary, and Toronto to announce the 2022 Foresight 50 — Canada's most investable cleantech ventures
- Nine of the 50 were in CCUS, including five carbonNEXT alumni or engaged start-ups.
- Included in-person events featuring carbonNEXT ventures pitching to VCs and angels

carbonTALKS

In 2022 we introduced our monthly speaker series to build the carbonNEXT ecosystem and analyze trends within the sector.

September:

Canada's Hydrogen and CCUS Innovation Funding Calls

- Speakers from NRCan, Alberta Innovates, and the Clean Resource Innovation Network shared intel on upcoming funding opportunities

October:

carbonNEXT & the Canadian CCUS Research & Technology Network Launch

- Featured speakers from Prairies Economic Development Canada, Scotiabank, and reverse pitches from the validation network of test-bed facilities

November:

Success in CCUS

- Well-known, later-stage CCUS ventures including Carbon Engineering, Carbon Upcycling Technologies, and CleanO2 shared important lessons learned

December:

Canadian CCUS Policy vs. US IRA

- Speakers from BMO, Tuatara Development Corp, and Svante compared incentives for CCUS Project & Technology development in Canada and the US following the announcement of the US Inflation Reduction Act

January:

What does COP27 mean for CCUS?

- Speakers from XPRIZE, the Carbon Business Council, and the Oilsands Pathways Alliance explored the global context for CCUS as the US, Canada and Europe race to enable projects and advance innovation



Thought Leadership: The Case for Canada

The first [Thought Leadership Report](#) for carbonNEXT was launched in November 2022, with support from Global Affairs Canada, and the carbonNEXT sponsors. It asked how Canada can take an outsized share of the trillion dollar global market opportunity in CCUS. In particular, the report explored the Canadian CCUS Project and Technology development ecosystems, to identify opportunities to:

-  Position Canada as a leader
-  Level the playing field for Canadian start-ups
-  Enable collaboration across stakeholders
-  Close technology gaps



Innovation Challenge: DAC to the Future with Sasol

Foresight's Innovation Challenges bridge the gap between innovators and industry, corporate leaders, or governments. Our Innovation Challenges provide a systemized, de-risked and cost-effective process for sourcing, evaluating and testing cleantech solutions from across the globe.

In late 2022, carbonNEXT partnered with South Africa's Sasol and the Trade Commissioners Service on an SDG Connect Innovation Challenge to transition Sasol's Secunda facility to fossil-free operations. In order to achieve Sasol's net zero goal, several million tonnes of CO₂ may need to be captured via Direct Air Capture (DAC) annually.

The successful DAC solution had to:

1. Successfully integrate into the Secunda complex
2. Offer integration of the captured CO₂ into the feedstock value chain to produce low carbon products such as green chemicals, green petrol/diesel, and Sustainable Aviation Fuel (SAF)
3. Be cost-effective
4. Ideally, capture CO₂ from both the air and point sources

This challenge resulted in two impressive finalists that were invited by Sasol to pitch their technologies. Sasol selected carbonNEXT venture [Gaia Refinery](#) for further due diligence.

Advisory Council

carbonNEXT gathers input to improve our programs and opportunities for our ventures by convening a group of cross-sector experts on a quarterly basis.



Chantelle Carden
Centre for Innovation
& Clean Energy



Deborah Pietrusik
Prairies Economic
Development Canada



Mark Summers
Emissions Reduction
Alberta



Peter Koning
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Rachel Shin
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Carbon Management
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Ed Whittingham
Independent



David Sanguinetti
Foresight CAC



Candice Paton
Enhance Energy



Robert Joshi
Industrial Gas
Users Association



Adam Auer
Cement Association
of Canada

Newsletter

The [monthly carbonNEXT newsletter](#) captures everything carbontech, including:

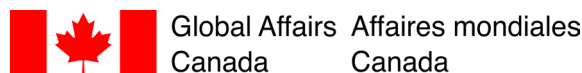
- Key opportunities and insights for Canadian CCUS start-ups
- Industry events, webinars, and competitions
- Buzz-worthy news articles highlighting gaps and opportunities

The newsletter has grown to over **500 subscribers** since launching in October.



Program Outcomes by 2025

Program Outcomes	Q1 2023	Forecasted End of 2024
10+ New CCUS Ventures/Year	30 Ventures receiving support	50+ Ventures supported through carbonNEXT
3 CCUS Innovation Challenges Completed	1 Challenge completed with Sasol	3+ Challenges completed
3 Thought Leadership Reports	1 Thought Leadership Report Completed	3 Thought Leadership Reports Completed
\$7.5M in Capital Raised by Ventures we Support	\$5M+ raised by carbonNEXT ventures	\$10M+ raised by carbonNEXT ventures
5 Prototypes & Pilots completed	2 Prototypes & 1 Pilot completed by ventures	5 Prototypes & Pilots completed
20 carbonNEXT Collaborators & Supporters	13 collaborators & supporters secured including:	20 carbonNEXT collaborators & supporters



Roadmap for 2023

We want to continue to build on the success of the first year of carbonNEXT, starting with our new cohort of companies from February to April, during which we aim to:

Release our global directory of resources for CCUS startups

Host seven showcase, industry, and matchmaking events+

Run an Industry Challenge

Deliver a powerful thought leadership report

Continue carbonTALKS from May–December (on hiatus during cohort)

Grow our newsletter subscribers to 750+

Additional deep-dive training courses





Let's keep bringing success to CCUS!

For program inquiries please contact
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