

A Year in Review 2022



Cement
Association
of Canada

concrete
building for life.



Table of Contents

Message from the President and CEO	4
National Highlights	11
Western Region Highlights	38
Ontario Region Highlights	45
Quebec Region Highlights	51
Atlantic Region Highlights	58
Codes and Standards	60



Message from the President and CEO



Speaking at the Net-Zero Challenge Launch (Photo credit to C. Brault).



It is with great pleasure that I share with you this overview of the Cement Association of Canada's achievements in 2022. This is my first annual report since taking over as President and CEO last April from our longstanding colleague Michael McSweeney. I want to start with heartfelt thanks to Michael for his tremendous and relentless efforts in advancing the interests of the cement and concrete industry over the past 15 years.

While 2022 was defined by an emergence (of sorts) from COVID-19 lockdowns and restrictions, echoes of the pandemic continue to push us all to adjust and adapt to changes reverberating through the economy and shaping corporate and political discourse.

By many measures, this was a very strong year for the industry. Throughout the pandemic, governments across the country rightfully accelerated investments in infrastructure to buffer the effects of lockdowns. Combined with relatively low inflation and interest rates, these investments contributed to an unpredicted surge in construction. While this surge continued in 2022, supply chain challenges, significant inflation and a corresponding escalation in interest rates have started to work against construction, increasing costs and offsetting some of the gains from higher overall demand. These challenges will follow us into 2023, but so will the lessons we've learned over these unprecedented times.

Just as the industry has had to adapt, so too has the CAC. One of my first priorities as the new CEO of the CAC was to reorient the organization and its team to a rapidly evolving economic and policy landscape, and to quickly re-establish our relationship with political and other stakeholders as the world began to open up. Along with an internal restructuring of roles and responsibilities, I have also pursued a renewed focus on governance, aiming to optimize resources and develop the tremendous talent on the CAC team. As we move into 2023 and the implementation of our action plan supporting the government-industry Roadmap to Net-Zero Concrete, now is also the time to continue to strengthen and formalize collaboration with Allies across the industry by operationalizing the new committee system that was put on hold during the pandemic.



CAC Chair Marie Glenn, Minister of Innovation, Science and Industry the Honourable François-Philippe Champagne and Adam Auer at the ISED Roadmap to Net-Zero Carbon Concrete by 2050 launch in Saskatoon, SK.



The CAC made important progress across a number of fronts in 2022, but without question the overarching focus was advancing our work with the Government of Canada on the steps required to achieve net-zero concrete by 2050. On November 9th in Saskatoon, along with CAC Chair Marie Glenn, Burnco Rock Products CEO Tom Zeis, and joined by our Concrete Saskatchewan colleagues Ashley Campbell and Nicole Campbell, I had the opportunity to announce with the Honourable François-Philippe Champagne, Minister of Innovation, Science and Industry, the government's Roadmap to Net-Zero Concrete by 2050 (ISED-Industry Roadmap). It is hard to overstate the significance of this achievement. Almost two-years in the making, and the result of an outstanding effort from the CAC team as well as many of our Allies in the concrete industry across Canada, the Roadmap represents a unique government-industry commitment that no other industry sector in Canada has accomplished. It is a true testament to our industry's climate leadership.



I am grateful for the level of enthusiasm and engagement from the whole cement and concrete value chain and would like to thank our members, our allied concrete associations as well as independent concrete producers across Canada for their efforts and support. Of course, now the hard work begins to implement the Roadmap and to make good on its promise of supporting and accelerating the competitiveness of our industry through the transition to net-zero. I state with tremendous confidence that we begin this process in a position of strength, both internally within the industry as well as externally with government and other key stakeholders. In fact, this position of strength is already reflected in significant progress we are making across a number of our advocacy priorities.

On procurement, we have successfully negotiated the first low-carbon concrete requirement for all federally-owned buildings and infrastructure (to come into effect at the end of this year). This is a key milestone toward our goal of performance-based procurement practices to drive low-carbon innovation in our sector and, once again, it positions the cement and concrete sector as a first mover among building materials in tackling the climate challenge. As part of our Roadmap, Minister Champagne has committed to working with our industry and the provinces to modernize procurement to recognize the value of low-carbon concrete. This continues to be a top priority for the CAC. We plan to leverage government commitments in the ISED-Industry Roadmap to support our goal of realizing meaningful technical, procedural, and cultural change toward performance-based codes, standards, policies, and practices at all levels of government as well as in the private sector. This work will continue to be supported at the technical level through our participation in codes and standards committees, as well as targeted technical outreach to specifiers across the country, which this year led a number of jurisdictions to expand their acceptance of Portland-limestone cement (PLC).



We were also very successful this year in continuing to “punch above our weight” in influencing the development and design of several signature climate policies, including the federal government’s Investment Tax Credit for CCUS technologies, additional funding for innovation, and the inclusion of unique financing instruments, such as Carbon Contracts for Difference in the mandate of the newly- established Canada Growth Fund. We have worked tirelessly to ensure government policy is aligned with the needs of our sector.

At the same time, we were reminded that government policies south of the border can also impact the Canadian cement and concrete industry. Having just successfully navigated protectionist trade provisions to safeguard the integrated nature of Canada-U.S. cement manufacturing, the passing of the U.S. Inflation Reduction Act (IRA) presents new challenges for Canada’s investment landscape. The IRA puts added pressure on Canadian governments to increase ambition in securing low-carbon capital investment. The CAC has played an important and highly influential role in its engagements with government in articulating why this is a race we cannot afford to lose, and what is needed to keep the Canadian cement sector an attractive target for global investment in industrial decarbonization.



Adam Auer with the Buy-Clean delegation in Ottawa for a series of meetings with ministerial staff and senior government officials.

In this context, I would be remiss not to mention that several of our members have been awarded significant project funding, both provincially and federally, for low-carbon investments and we know there are many more applications in development. Doing everything in our power to support the success of these applications will be a key activity for the CAC in 2023. We will also continue our work with our members and allies to help them identify and navigate existing and new public financing opportunities.



Of course, dealing with political volatility is a constant reality at the CAC. This past year saw general elections in both Ontario and Quebec, as well as significant leadership drama in both the federal Conservative Party as well as the United Conservative Party in Alberta. Elections demand increased lobbying efforts from the CAC in order to build relationships with newly elected officials and their staff. They also provide opportunities to raise the profile of the industry across Canada. We believe we have done this successfully through 2022. Looking ahead to 2023, we are already preparing for the Alberta provincial election, renewed engagement in BC with the new leader of the provincial NDP, as well as to leverage the Roadmap as a platform for an industry-wide “Concrete on the Hill” government relations push with the federal government.



CAC team at a dinner following a strategic planning session.

I am blessed to be surrounded by a committed and talented team at the CAC, who work tirelessly for our members. As I reflect on my first year as President and CEO, I am immensely proud of how the CAC team has adapted to all of the internal and external changes and performed at the high level that we are increasingly known for. Together in 2022, we have progressed leaps and bounds with government and many of our environmental and other allies. And we will raise the bar again in 2023. We understand the responsibility and the privilege of serving in a critical industry, at a critical and transformational time in its history.



I know that 2023 will bring its share of challenges, some anticipated and others unknown. Managing through this transition, my priority is to ensure that our members' financial contribution to the CAC is fully optimized, always keeping front and centre our members' priorities, economic pressures and the protection and creation of shareholder value. As our in-person activities, sponsorships and travel ramp back up to normal levels, I continue to plan for flexibility, closely tracking and managing expenditures and cash flow and maintaining our ability to adapt to economic uncertainty. We end 2022 in a strong and stable financial position that supports our ongoing capacity to provide to our members the value they expect of us.

Finally, I know I cannot end this report without a word about my health. Only a month after taking on the challenge of leading the CAC, I was confronted with a cancer diagnosis. Many of you know that my amazing wife Rebecca is a surgical oncologist. Not surprisingly, cancer is a frequent topic of discussion in my household,

but never did we allow ourselves to imagine it would hit so close to home. I can't possibly express the gratitude I feel for the support I have received and for the confidence that my team, the CAC Board and industry colleagues continue to place in me. I am receiving the best care available and am very happy to report that I have responded aggressively to treatments. My cancer is regressing at a pace beyond expectations. My cancer journey is not over, but I am filled with gratitude for how my community has rallied around me and for the augmented focus and determination that cancer has brought to my life.

"I guess that one of the most important things I've learned is that nothing is ever completely bad. Even cancer. It has made me a better person. It has given me courage and a sense of purpose I never had before. But you don't have to do like I did...wait until you lose a leg or get some awful disease, before you take the time to find out what kind of stuff you're really made of. You can start now. Anybody can." —Terry Fox

Thank you for your support and collaboration and best wishes for a Happy, Healthy and Prosperous New Year in 2023!



Adam Auer

President and CEO,
Cement Association of Canada





“Climate change is our industry’s most significant challenge. It is also our greatest opportunity. By charting a credible, transparent path to net-zero emissions, our industry continues its history of leadership in building the sustainable world of tomorrow.”

Adam Auer, President and CEO, Cement Association of Canada

National Highlights



Federal Government

Supporting our Roadmap to Net-Zero Concrete

2022 saw a return to significant engagement with the federal government on climate policy, as an emerging global interest in industrial decarbonization is reflected in Canada. While much of the heavy lifting on regulatory climate policy has already been accomplished, this year's policy agenda focused on the "carrots", i.e. the financial supports needed to support the decarbonization agendas of various heavy industries in Canada, including tax credits for CCUS, capital funding for projects, and momentum around the creation of carbon contracts for difference. When it comes to industrial decarbonization, Canada's cement industry is viewed by the federal government as a clear leader. The work we have put in on initiatives such as the collaboration with Innovation, Science and Economic Development Canada (ISED) and broader relationship building with government is yielding positive results. Government stakeholders continue to engage with us for positions on various funding programs, and we are gaining traction on our procurement agenda, with the government promising a broader strategy on "Buy Clean" to be brought forward to Cabinet by the end of the year.





The Honourable François-Philippe Champagne, Minister of Innovation, Science and Industry, with CAC President and CEO Adam Auer, CAC Chair Marie Glenn, BURNCO Rock Products CEO Tom Zeis and staff at the announcement of the Roadmap to Net-Zero Carbon Concrete by 2050 in Saskatoon, SK.

ISED Partnership: Delivering Net-Zero Concrete by 2050

Over the past year, we have been hard at work to deliver on our ambitious partnership with federal Minister François-Philippe Champagne and his departmental officials at ISED. While the Roadmap to Net-Zero Concrete by 2050 was officially launched on November 9th, 2022, the hard-work is just beginning.

The partnership commits both parties to the reduction of 15 megatonnes of CO₂ cumulatively by 2030. Achieving this ambitious goal will require timely and thoughtful policy implementation. Now that the Roadmap is public, CAC has secured a governance structure for implementation that will ensure careful execution and focus on achieving meaningful outcomes for our objectives, including priority areas such as low-carbon procurement and performance-based standards, funding for capital projects at cement facilities across the country, and support for an active R&D agenda that will support the uptake and diffusion of lower carbon cement and concrete products through the marketplace.


A major task for the CAC in 2023 will be leading the implementation of the Roadmap in collaboration with ISED, including striking of a focused steering committee and implementation groups with the authority to make decisions. We will also aggressively advocate for a reasonable government budget to support the implementation of the measures contained in the Roadmap. Our industry's continued commitment and support of this initiative further enshrines us as a leader on climate change and a model for what an industrial strategy looks like in Canada.



Unlocking Capital Projects: Carbon Capture Utilization and Storage and Carbon Contracts for Difference

A major focus for CAC over the past year has been getting the right policies and programs in place to support capital projects for our industry, the most significant of these being the Investment Tax Credit for Carbon Capture Utilization and Storage (CCUS ITC) and Carbon Contracts for Difference.

Details for the CCUS ITC were announced in the 2022 Federal Budget, with draft legislation published at the end of the summer. Strictly limited to supporting capital for CCUS projects, the ITC has the potential to provide significant funding to projects by providing a tax credit of up to 50% on eligible capture equipment and 30% on eligible transportation, storage and use equipment. However, this will only be possible if the legislation is designed correctly.



When the draft legislation was posted for public comment in August 2022, the CAC began an assertive lobbying effort to change the provisions around the eligibility of “sole” versus “multi-use” equipment. If allowed to stand, provisions allowing the tax credit to be applied to equipment used for the sole purpose of carbon capture would disallow huge volumes of CCUS equipment needed in a cement plant application. By providing sophisticated, evidence-based comments to government officials and political staff, we made an impact, and we believe that the government will alter their position on allowable equipment under the CCUS ITC in a way that will benefit the cement industry by recognizing the true nature of how projects work in our industry. In addition, we worked strategically to gain the support of other industry groups and ENGO partners for our position in their own submissions.

Canadian climate policy in 2022 began to grapple with a new challenge: how to deliver economic competitiveness through the low carbon transition, a challenge that was further exacerbated later in the year with the passing of the U.S. Inflation Reduction Act. Not only is the pressure building for Canada to secure low-carbon investment, but there is also now overwhelming competition from our largest trading partner to the south — a race we cannot afford to lose.

Leading up to the Emissions Reduction Plan (ERP) launch in March 2022, the CAC saw an opportunity to put a little-known policy on the table: Carbon Contracts for Difference or CCfD's. In short, this policy is meant to solve the "production incentive gap" for near net-zero materials such as cement and concrete. While it is technologically feasible to produce these materials today, there is overwhelming capital and operating risk in doing so given that the market isn't yet willing to purchase and use near-net zero materials. In a CCUS project, for example, there is no other option for a company/investor to recoup the ongoing costs of paying to store and transport the captured carbon. Demand side policies, including procurement and CCfDs, are a critical missing piece in supporting the decarbonization of cement and concrete, and it is encouraging to see this increasingly recognized by policy makers. The CAC's Sarah Petrean and Adam Auer wrote about the importance of these measures in a recent article in [World Cement](#).



The inclusion of CCfD in the ERP was controversial and we saw a need to build momentum around the policy if we were to have a chance at seeing it implemented to the benefit of the entire industry. The CAC immediately convened a group of industry associations and ENGOs to build alignment and support for the policy. This group is co-chaired by the CAC and Clean Prosperity, and its industry members include the Canadian Steel Producers Association, Forest Products Association of Canada, Mining Association of Canada, Chemistry Industry Association of Canada, and Fertilizer Canada. Its ENGO members include the Pembina Institute and Clean Energy Canada. The coalition also sought the advice of a globally recognized leader and academic in industrial decarbonization policy, Dr. Chris Bataille, and his associate Seton Steibert (who also wrote the influential [Emissions Omissions report](#) on the carbon footprint of wood) on how the policy could best be designed in the Canadian context.

Due in large part to these efforts, the policy has gained significant traction, and was recently included in the [Fall Economic Statement](#) and associated [technical backgrounders](#). In addition, several media articles are emerging on the issue, and the CAC is looked to by senior officials in government for leadership and advice on the topic. We are hoping to see these efforts pay off with an announcement of the policy and related programming in Budget 2023.



The Path to Performance-Based Standards: Buy Clean and Procurement

Over the course of the year, we have witnessed a surge in interest in low-carbon procurement and the Buy Clean agenda from Ministers and political staff, as they grapple with developing a meaningful response to the U.S. Inflation Reduction Act and the measures contained within it, which include an aggressive low-carbon procurement agenda.

While politically the importance of a meaningful response is understood, the siloed approach to procurement between government departments has slowed the level of ambition and responsiveness to the low-carbon procurement agenda. However, the active leadership of the CAC both within the Buy Clean Alliance — a coalition of industry and ENGO partners — and on its own has helped to ensure the agenda moves forward.

By December 31st, 2022, the Federal Standard on Low-Carbon Concrete will come into effect. This standard sets minimum requirements for the procurement of design and construction services to reduce and disclose the embodied carbon of major construction projects. Major construction projects typically include the renovation or new construction of buildings or engineering assets. The objective of this standard is to establish requirements to disclose and reduce the embodied carbon footprint of construction projects as per the commitments in the Greening Government Strategy. Concrete is the first material to have such a standard developed, thanks to the ongoing collaborative approach our industry has taken with government, and our commitments to transparency and accountability in disclosing our data. According to government officials, our industry has set the gold-standard for collaboration on data; we have set the bar that other industries are now being held to.



We were pleased to secure an additional grant from the National Research Council, to support the creation of regional Environmental Product Declarations (EPDs) for cement, and integration of those EPDs into the Global Cement and Concrete Association's EPD web platform. Our work on flexible performance-based frameworks that create greater incentives for existing and emerging lower carbon cement and concrete innovations will continue and remain the top priority under the ISED partnership, and we will aggressively pursue this agenda over the coming year.





Cement First: Joining the Net-Zero Challenge



Minister of Environment and Climate Change the Honourable Steven Guilbeault speaking at the Net-Zero Challenge launch (Photo credit to C. Brault).

Further evidence of the cement industry's climate leadership was found in our participation in [Canada's Net-Zero Challenge](#). As the first, and only whole-industry partner, we were pleased to welcome the federal Minister of Environment and Climate Change, the Honourable Steven Guilbeault, along with local MP Peter Shiefke, to a cement facility for the kick-off announcement.

The Net-Zero Challenge is a further means to disseminate the positive messages and solutions being brought forward by the cement and concrete industry on climate. Participation in this Challenge requires public transparency and accountability on decarbonization plans by making plans public and updating them every five years to ensure accuracy and rigorous attention to the established targets (15 megatonnes CO₂ cumulatively by 2030, net-zero by 2050, and an interim target yet to be determined).





Asserting our Climate Leadership: Engagement with the ENGO Community

A return to in-person gatherings led to increased engagement with ENGO partners with positive results. Many ENGOs view Canada's cement industry as climate change leaders. As industry's representative, CAC staff are regularly asked to participate as advisors to several projects that ENGOs have actioned to move governments forward on climate policy.

This work includes an initiative co-led by the Pembina Institute and Clean Energy Canada to encourage the adoption of lower carbon concretes by the BC government public procurement; the need for a suite of industrial decarbonization policies led by Transition Accelerator and Smart Prosperity; and a climate impact challenge, led by clean tech incubator MaRS, that specifically focuses on clean procurement. This engagement also includes the CAC providing advice on the content and scope of public events, acting as a media spokesperson, and chairing public conversations.

Notably, the CAC continues to act as the de facto co-chair of the Buy Clean Alliance with Clean Energy Canada. As one of its founding partners, the Alliance is focused on realizing policies of importance to our industry — including the adoption of performance-based standards, and specific attention to procurement approaches, standards and codes that favour lower carbon materials.

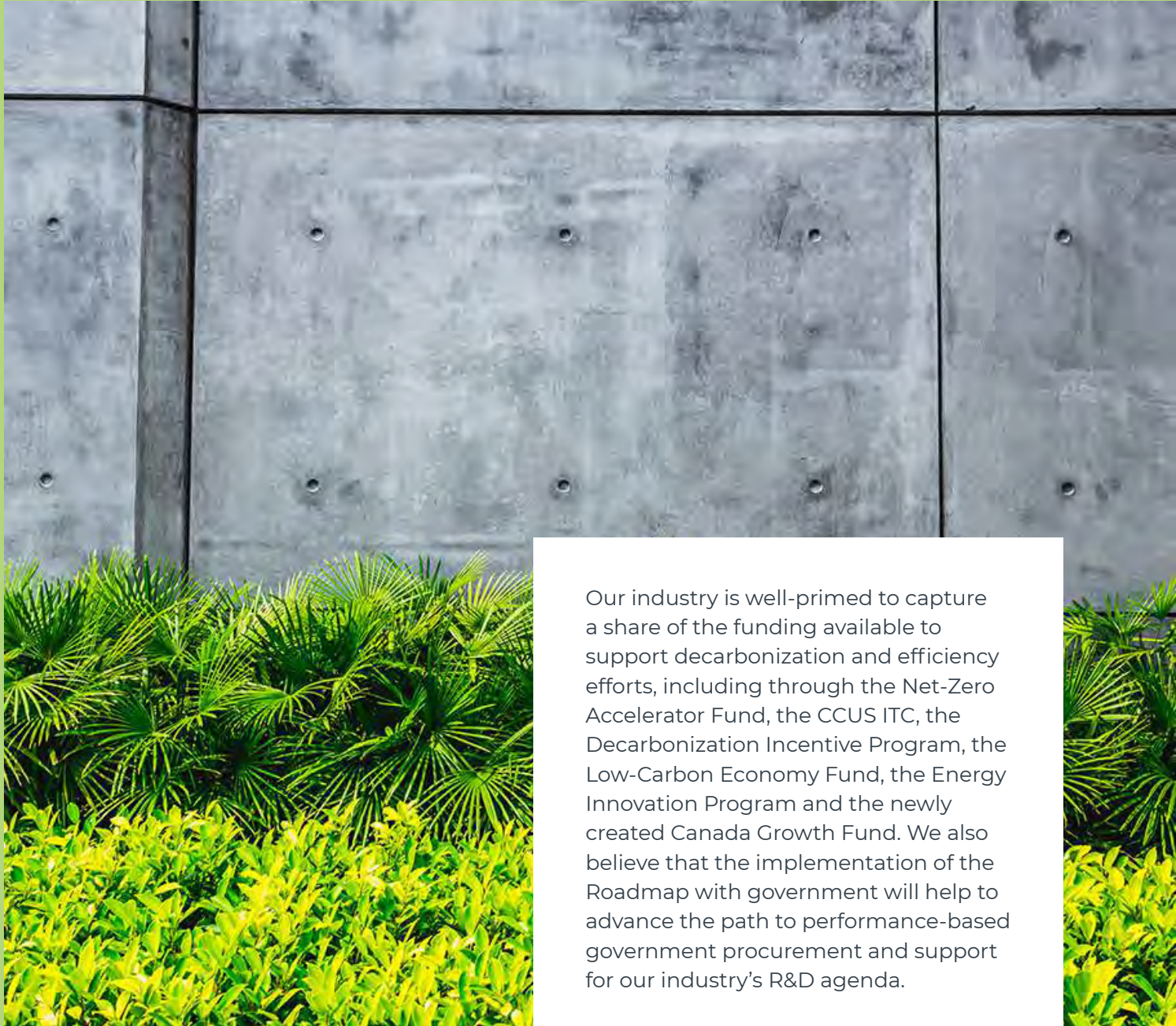
An emerging area of engagement is CAC's relationship building with the philanthropic family foundations that provide funding support to the ENGOs and their projects. The purpose of this is to influence what projects the funding community is interested in supporting and increasing the amount provided to support both the supply (carbon pricing, capital funding) and demand side policies (procurement, carbon contracts for difference) needed for the decarbonization of the cement and other heavy industries.

The strong relationships built with the ENGO community and their philanthropic funders has resulted in a shift in the way previously controversial topics such as the deployment of CCUS are viewed. Whereas once the majority of ENGOs would speak out against CCUS in all forms, there is now a recognition that the technology plays a vital role in the decarbonization of the cement industry. Additionally, ENGOs are publicly supporting positions of the cement industry in government consultation processes, notably in the consultations for the CCUS Investment Tax Credit and in the pre-Budget submissions for 2023.



Concrete Zero: Canada's Cement and Concrete Industry Action Plan to Net-Zero

Over the past year, we have continued to engage with our allies in the cement and concrete value chain on our industry's actions to net-zero. Part of this work has been realizing the vision of the ISED collaboration and publishing the joint [Roadmap to Net-Zero Concrete by 2050](#), but we know this is just one piece of the puzzle. Thus, we continue to work on our broader Industry Action Plan. We aim to launch the Plan in early 2023, supported by a strong communications strategy, ensuring a maintained momentum of industry leadership and a strong reputation with government, while maximizing public relations opportunities for the industry.



Our industry is well-primed to capture a share of the funding available to support decarbonization and efficiency efforts, including through the Net-Zero Accelerator Fund, the CCUS ITC, the Decarbonization Incentive Program, the Low-Carbon Economy Fund, the Energy Innovation Program and the newly created Canada Growth Fund. We also believe that the implementation of the Roadmap with government will help to advance the path to performance-based government procurement and support for our industry's R&D agenda.



Regulatory Affairs

Updates to the Federal Output Based Pricing System



The CAC's Sarah Petrean speaking at Canada's Net-Zero Industrial Strategy Summit in October.

On October 28th, Environment and Climate Change Canada (ECCC) published amendments to the Greenhouse Gas Pollution Pricing Act as well as a Notice of Intent to amend the Output-Based Pricing System Regulations. The former confirms the previously announced increases to the federal backstop carbon price from \$50/tonne in 2022, rising \$15 per year to reach \$170/tonne in 2030. The latter proposes amendments to modify the formula to calculate facility emissions limits under the federal Output Based Pricing System (OBPS) by incorporating an annual 2% tightening rate starting with the 2023 compliance period. Importantly, the tightening rate would be reduced to 1% per year in sectors at very high risk of competitiveness and carbon leakage impacts resulting from carbon pricing. These sectors include the production of cement, lime, and petrochemicals (except ethylene glycol), and natural gas extraction and processing. While there are currently no cement facilities covered by the federal system, as all provinces in which cement facilities operate have their own equivalent provincial requirements, it is encouraging that the cement sector continues to be recognized among Canada's most Emissions Intensive Trade Exposed (EITE) sectors. Provinces look to federal decisions as a base-case when developing their own programs.



Canadian Environmental Protection Act (CEPA)

We continued in 2022 to monitor other national and international policy and regulatory initiatives that could have an impact on cement manufacturing activities. This included the risk assessment and risk management activities of the federal government for specific substances under the Chemicals Management Plan (CMP), as well as the analysis of the proposed changes to the Canadian Environmental Protection Act (CEPA). Bill S-5, Strengthening Environmental Protection for a Healthier Canada Act, puts forward many amendments to CEPA 1999, but the actual impacts on the cement and concrete industry should be minor. The preamble to the Act will recognize that every individual in Canada has a right to a healthy environment and the Act will require that the government protect that right. Within two years of the amendments coming into force, the government will have to develop an implementation framework to set out how that right will be considered in the administration of the Act. In addition, the preamble to the Act will include a statement confirming the government's commitment to implement the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). It is expected that the new legislation will be promulgated in 2023.





Other Issues

CAC staff continued to participate in air quality policy development and implementation in 2022. We continued to provide support to Members to make sure that regulatory obligations under the federal Multi-sector Air Pollutants Regulations (MSAPR) were well understood and liaison with government officials was facilitated by CAC officials as needed.



Cement manufacturing facilities continue to report their releases to the environment through the National Pollutant Release Inventory (NPRI) administered by ECCC. A CAC representative sits on the NPRI multi-stakeholder Work Group, which provides advice to the federal government on the implementation of the NPRI program.



On the international front, we kept following the implementation of the Minamata Convention on Mercury to make sure that any potential impact on our sector would be identified at the planning stage and could be prevented. No such impact has been identified to date.



In light of the increased recognition of Indigenous Rights in Canada, the Cement Association of Canada is currently developing a Policy Statement to recognize the importance of Reconciliation among governments, Indigenous Peoples and the Canadian society. The statement will also set the cement sector's commitments towards that goal.



Marketing Communications

The revitalized CAC brand was successfully deployed across all platforms and communications collaterals during the first quarter of 2022. Overall, it has been well received and praised for its clean lines and youthful colors.



New Website

Launched at the beginning of 2022, CAC's new website increases the association's ability to communicate digitally with our stakeholders. The website positions the cement and concrete sector as a sustainability leader and focuses on the lead up to the release of our Industry Action Plan to Net-Zero Concrete. The Expertise Center provides valuable technical information in an easy-to-navigate layout. Covering cement and concrete related aspects of topics such as resilience, carbon accounting, and transportation infrastructure, the Expertise Center helps to further educate technical professionals on the benefits and versatility of cement and concrete.



Social Media Growth

Our social media channels have seen major growth over the past year, with the continuing maturation of our digital strategy.

The CAC has seen incredible growth on Twitter.

231%

increase in followers

376%

increase in link clicks

Growth on LinkedIn has been steady as well.

186%

increase in new followers

296%

increase in non-sponsored link clicks

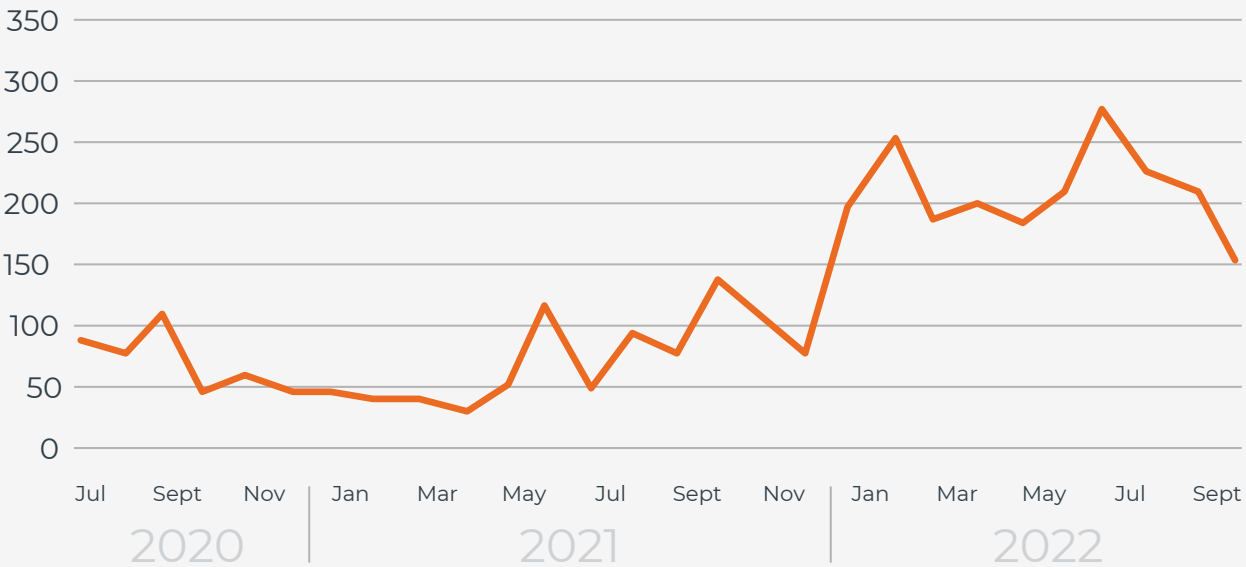
CAC's LinkedIn page is close to reaching 8,000 followers.



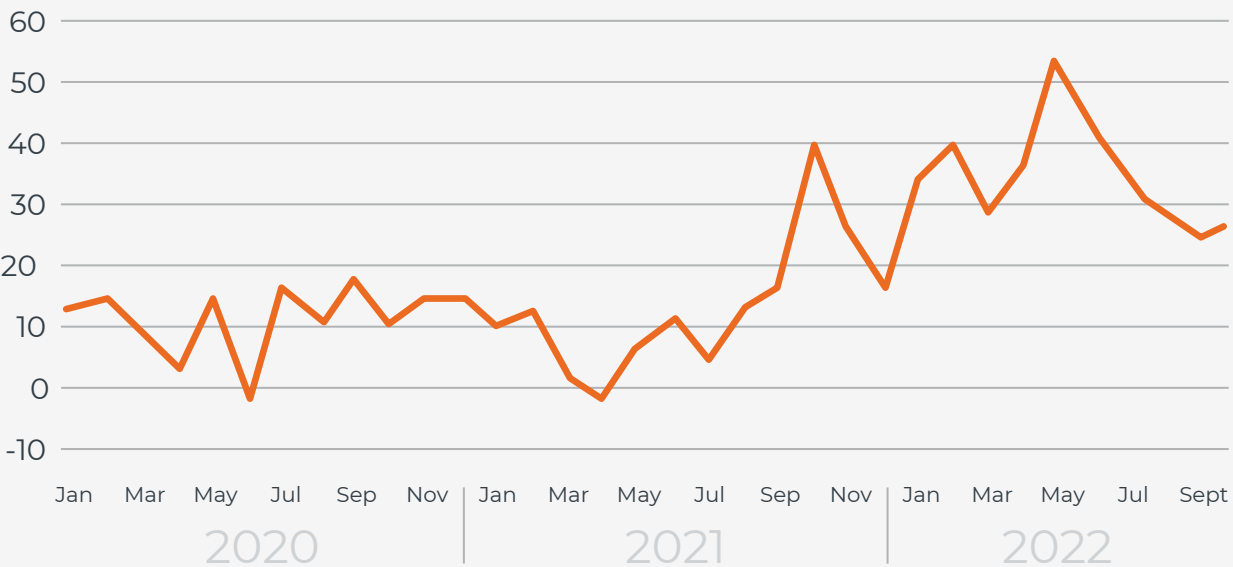
* Charts compare Oct 2020-Sep 2021 to Oct 2021-Sep 2022

In June 2022, CAC looked to capitalize on our digital success by expanding to Facebook and Instagram. This has enabled us to reach the widest audience possible, in preparation for the launch of our Industry Action Plan to Net-Zero in 2023.

Linkedin Follower Growth per Month



Twitter Follower Growth per Month



CAC Monthly

We worked towards keeping our partners and members engaged and informed by revamping the CAC Biweekly into a monthly newsletter. The new CAC Monthly format highlights the work done by CAC staff and shares information of direct relevance to our members and stakeholders. Our newsletter has proven to provide value to our members and partners, with an email open rate more than double the construction industry average.

The CAC also worked to keep members updated on the latest political happenings, sending out weekly email updates during the Ontario and Quebec provincial elections.



Sponsorships

The year 2022 saw CAC re-investing in key sponsorships to enhance our visibility with target audiences.

We were successful in securing prime visibility at the Federation of Canadian Municipalities (FCM) conference which was held in Regina. Our President and CEO was featured in a [video](#) during the plenary session with 1000 guests in attendance. The FCM sponsorship included exclusive visibility and a speaking opportunity during a reception at the National Arts Center in Ottawa. It was attended by 300 guests, including the FCM Board of Directors and Big City Mayors Caucus, Members of Parliament, and Senators. Other notable sponsorship related events the communications team supported, promoted and coordinated included:

- **Union of BC Municipalities**
Reception was attended by 250 guests in Whistler, BC.
- **Association of Municipalities of Ontario**
Reception was attended by 400 guests in Ottawa, ON.



Taneen Rudyk (FCM President), Adam Auer and Carole Saab (FCM CEO) at the Federation of Canadian Municipalities Board of Directors Meeting in Ottawa.



CAC hosted a reception during the Association of Municipalities of Ontario Conference with over 400 attendees, including mayors, councillors, and MPPs.

As COVID measures allowed for in-person activities to resume across Canada, CAC supported key ENGO events and activities to help further enhance our brand visibility, deepen our relationships with key industry partners and key influencers. Additional activities included:

- **The Ottawa Riverkeeper Gala**
- **The Swim Drink Fish Gala**
- **The GreenPAC Breakfast on the Hill**
- **Pollution Probe Conference and Gala**
- **Pembina Institute UnGala**
- **Globe Forum 2022**
- **CaGBC (Canada Green Building Council)**



Key Federal Announcements

CAC was invited to join Federal Ministers for key Government of Canada announcements on several occasions this year – a reflection of the CAC’s team ability to efficiently engage behind-the-scenes with government elected and departmental officials. CAC joined Minister Guilbeault (Environment and Climate Change) in August to announce cement as the first industry participant in the federal [Net-Zero Challenge](#). We also joined Minister Champagne (Innovation, Science and Industry) in November for the launch of the [Federal Roadmap to Net-Zero Concrete by 2050](#).



Minister of Environment and Climate Change Steven Guilbeault at the Net-Zero Challenge launch (Photo credit to C. Brault).

Lobby Day – Receptions

The first Ontario Lobby Day since the emergence of COVID was held in late November. The reception was well attended, resulting in further engagement opportunities for CAC and concrete industry partners with Ontario elected officials and their staff.

Media Coverage

Again this year, CAC was featured in the [World Cement](#) and the [Concrete Pumpers](#) magazines. An OpEd was published in the [Hill Times](#) regarding CAC’s support for CCUS. Overall, the CAC was mentioned over [30 times](#) in media across Canada including the [Globe and Mail](#), [CTV News](#), [Global News](#) and the [CBC](#).

Action Plan to Net-Zero Awareness Campaign

A draft communications plan was developed to support the launch of our Action Plan to Net-Zero Concrete in early 2023. The plan includes a paid online awareness campaign aimed at widening CAC’s reach with target audiences. The awareness campaign will be ready to deploy at a moment’s notice when the Action Plan is released.



Markets and Technical Affairs

Economics Program/Market Intelligence

When the COVID-19 pandemic first arrived, the CAC and the whole of the construction value chain braced for (and lobbied against) sector shutdowns, and then new labour restrictions which reduced productivity in construction. We braced for the worst, but increased consumer savings, historically low interest rates and very large pent-up demand for housing, along with a big boost from governments in infrastructure investments surprised us all with a long period of sustained demand for cement and construction. This year, for the first three quarters of the year, cement demand showed signs of better results than last year. We also welcomed data from the McInnis cement plant into the CAC fold in 2022, bringing us closer to a Canada-wide representation.



But the pandemic also brought new challenges such as supply chain constraints for maintenance parts for cement facilities, shortages of materials for all sorts of construction projects along with a worsening inability to find enough trained and skilled labour throughout the industry. High inflation also means labour union unhappiness, and our industry faced some challenges on that front too. Our Members have been taking measures to mitigate the supply side challenges and to ensure that shortages will not be a theme in 2023.

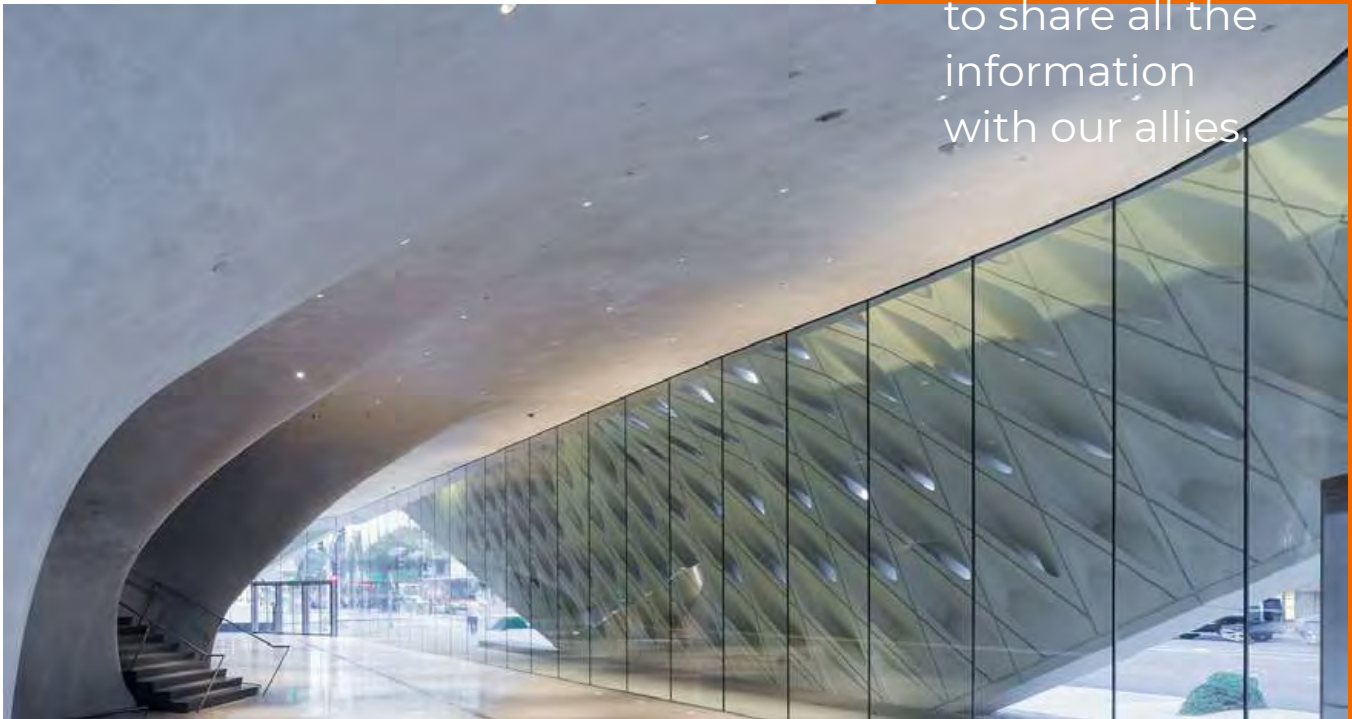




In conjunction with its economics consultant, the CAC published two cement forecasts in 2022, in response to the challenging macroeconomic environment and difficulties projecting when the high-demand cycle will end and how much it may slow down. Our most recent forecast, based on traditional macroeconomic inputs for the Canadian economy, also shows a slowing demand for cement in 2023 as the economy slows. While we may slip into a recession in 2023, many of the factors which supported construction during COVID are still present, bringing some optimism that we won't face challenges like we did in the recession caused by the 2008/9 financial crisis. For example, although the Bank of Canada's fight against persistent inflation with rate hikes is ongoing, the housing market in Canada has not 'collapsed'. There is still a significant demand for housing of all types; immigration is returning to normal numbers and non-residential projects show signs of life. Importantly, governments are signaling that they will not take their feet off the gas pedal on funding infrastructure investments in 2023, and in fact there are robust lists of planned projects in most parts of the country. Provincial government coffers are doing much better than predicted and governments tend to see construction as part of their recession-proofing strategies.



With respect to forecasts and economics information, the CAC plans to expand its offerings in a stand-alone document apart from our monthly updates of CAC activities, and to share all the information with our allies.



This sets the stage for an additional important activity planned for 2023: the collection of more data for analysis. During the development of the CAC's Action Plan to Net Zero Concrete, it was apparent that we were dealing with much smaller pools of data than the PCA had access to. As we move forward, we need the data to track the actions along our pathway, especially to monitor GHG reductions, but also to track specific items like regional Portland-limestone cement (PLC) uptake. In addition, we will need this data to hold governments to account as we try to hold them to their commitments to support the industry. We will be working through our committee system to help develop a strong data strategy that remains in compliance with the Competition Act.



Pavement Promotion

Technical Committee Involvement

CAC staff Tim Smith assures the secretariat function for the CAC Ontario Technical Committee. The key function of this group is to discuss Ontario's cement and concrete industry technical issues and liaison with MTO and Ontario municipalities on specification, certification, and testing issues. Other areas of discussion are marketing and promotional topics, liaison with OGRA Concrete Liaison Committee, liaison with Concrete Ontario and the research needs for the industry.

Key accomplishments of the Committee in 2022 were as follows:

- **MTO GreenPave Pavement Rating System Point System Review**
The CAC reviewed and supplied several comments on various areas of the latest version of the MTO GREENPAVE document. MTO is in the process of reviewing Concrete Ontario and CAC comments for potential changes to the document.
- **MTO TNM Noise Modelling Issue**
Based on CAC staff enquiries, the MTO agreed to have a consultant undertake a noise level study to collect information on different types of asphalt and concrete surfaces including longitudinally and transverse concrete. Based on the results, MTO will develop a coefficient for longitudinally tined concrete pavement recognizing the much lower noise level on these types of pavements to correct the error being generated by the TNM noise model for concrete pavements. This will ensure concrete pavement is not put at a disadvantage due to the wrong application of the TNM noise model.
- **Acceptance of Cement and Concrete Reference Laboratory (CCRL) for Testing Clause in MTO OPSS.PROV 1301**
MTO Concrete Section has agreed to modify the 1301.07.05 testing clause to allow the use of CCRL test results instead of having to have an independent engineer witness and sign off on the tests that were performed.



→ MTO Sustainability Letter and Low Carbon Concrete in Ontario

Concrete Ontario and the CAC prepared a joint letter to the MTO on recommended changes to MTO specifications to help the cement and concrete industry work towards its goal of net-zero concrete by 2050. The letter submitted to MTO was followed up with a virtual meeting to present the work underway on the CAC roadmap to net-zero concrete and the work on Ontario specific EPD's for ready mix concrete. After receiving a rebuttal letter from MTO, a second letter was sent providing an example of how their specification was affecting the decision of other government agencies as well as noting some inconsistencies in their response.

→ Potential MTO Concrete Pavement Test Sections

The MTO notified CAC and Concrete Ontario (CO) that they are looking into constructing a series of five 200 m-long concrete pavement test sections to review their performance for potential use on new MTO projects. CAC and CO recommended five different concrete pavement technologies for MTO to consider for the test sections due to their potential energy and carbon footprint reductions.



Acting as representative for the cement and concrete industry, we promote the many benefits of concrete pavements, cement-based roadway solutions and use of PLC to a number of organizations and technical committees, including Transportation Association of Canada (TAC) committees, Ontario Road Builders Association (ORBA) Structures and Concrete Paving Committee, American Concrete Institute (ACI) committees, Good Roads Municipal Concrete Liaison Committee, Concrete Ontario Technical Committee, and the Canadian Airfield Pavement Technical Group (CAPTG).



Technical Assistance

Another key role of the CAC is to respond to the numerous technical inquiries from government agencies, consultants and contractors on concrete pavement and cement-based roadway solutions. This includes providing current and relevant documentation on LCCA, LCA, PLC, low carbon concrete, concrete pavement repair and specification reviews. Design assistance for conventional concrete pavement and roller compacted concrete (RCC) design is also another important function of the technical staff, helping to ensure equivalent concrete and asphalt designs are being compared.

A few key accomplishments in 2022 are described below:



Tim Smith presenting at a Concrete Pavements Seminar with Concrete Alberta.

→ Review of Concrete Related Specifications for Government Agencies

CAC staff reviewed numerous concrete related specifications for several government agencies, including Nova Scotia Transportation and Infrastructure Renewal, Prince Edward Island Transportation and Infrastructure, City of Winnipeg, Saskatchewan Highways, City of Thunder Bay, City of Saskatoon and City of Windsor. The use of performance-based specifications, referencing CSA Standards and low carbon concrete with PLC and higher SCMs were noted in all the reviews. The reviews have led many of the agencies to adopt the use of PLC based cements.

→ Department of National Defence Concrete Pavement Rehabilitation and Reconstruction

CAC provided technical assistance to DND staff on how to repair concrete pavement defects including providing / reviewing documentation on partial and full depth repairs, dowel bar retrofitting, slab jacking and diamond grinding. Documentation on how to perform concrete pavement distress assessment and selection of potential repair solutions was also provided and reviewed with DND staff.

→ Concrete Pavement Promotion for Bus Terminal in Strathcona County, Alberta

CAC staff provided guidance to Al-Terra Engineering Ltd. on concrete pavement design and construction as an option for the reconstruction of an asphalt lane at a bus terminal in Strathcona County in Alberta. Staff visited the job site to discuss maintenance requirements on some concrete pavements and review the condition of the asphalt lane. Training was also provided on how to use the ACPA StreetPave concrete pavement thickness design software.





→ **Benefits of Concrete Pavement compared to Asphalt for Department of National Defense (DND)**

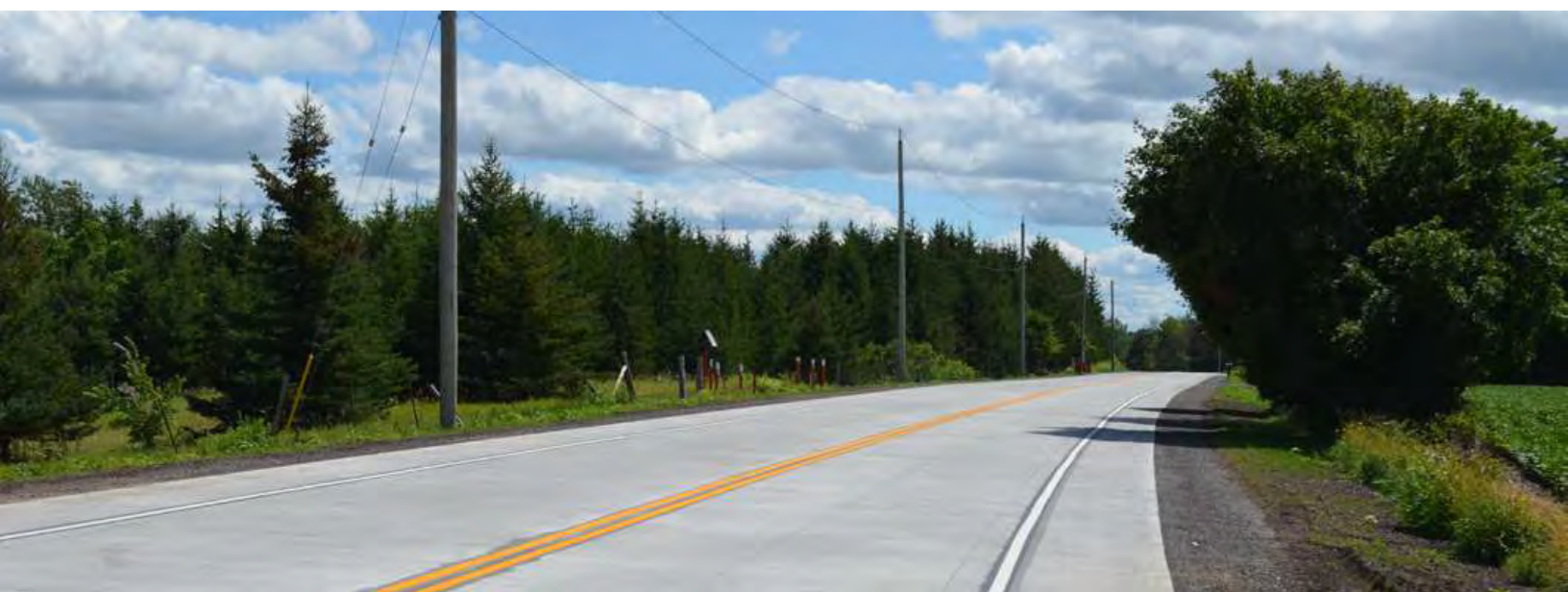
CAC staff was informed by DND that other stakeholders (e.g. pilots/operational staff/financial personnel) involved in the pavement selection process were pushing DND to using asphalt for apron areas, primarily because of its cheaper capital construction cost. CAC prepared a detailed package of documents identifying the many benefits of concrete runways, life cycle cost analysis information and sustainable advantages of concrete pavement. A presentation detailing the reasons for choosing concrete pavement for the new parallel runway at the Calgary International Airport was also provided.

→ **NSTIR Highway 107 Alternate Bid Tender**

We worked with Nova Scotia government officials to ensure concrete pavement was considered for the Highway 107 project in Halifax. An alternate tender was called with a life cycle cost advantage in favour of the concrete pavement option. CAC staff forwarded the tender to member companies with operations in Nova Scotia to ensure the industry was aware of the work. Unfortunately, due to the late release of the tender and the requirement to finish the work in 2022 no concrete pavement bids were received.

→ **CCPPA Releases Critique LCA Comparing Corrugated Steel Pipe (CSP) and Reinforced Concrete Pipe (RCP)**

The CCPPA / CAC Critique of the Corrugated Steel Pipe Institute Life Cycle Analysis (LCA) report prepared by Groupe AGECO was posted on CCPPA's website at the following link: <https://ccppa.ca/critique-life-cycle-corrugated-steel/>. The critique identifies several issues with the LCA review document including: scope and LCA functional unit, applicability of the study to other sizes of pipe, life cycle of CSP, recycling of CSP versus RCP and data set quality.



Education and Training

Part of the CAC's role is to help educate public and private owners, engineering/architect consultants, and contractors on the many benefits of cement and concrete products used in roadway applications. To assist in this process, CAC staff developed a technical summary document on Portland-limestone cement (PLC) and participated in several webinars and courses.

The following is a highlight of some of the education and training activities:

→ Presentations on Concrete Pathway to Carbon Neutrality, Low Carbon Concrete and other topics

CAC staff gave a total of 15 virtual presentations at several Association Conferences, webinars, and meetings throughout the year to explain the work the cement and concrete industry has been doing on the roadmap to net-zero and discuss the use of PLC-based cements and low carbon concrete.

→ Scott McKay Concrete Technology Course Presentations

CAC staff took part in the Scott McKay Concrete Technology course in February, doing presentations on Concrete Pavements and Concrete Innovations which included discussions on PLC.

→ SWIFT Conference Concrete Pavement Presentation

CAC staff gave a presentation on Treatment and Repair of Concrete Pavement Distresses at the 2022 SWIFT airport conference. The presentation was well received and spurred several questions from attendees during the session and afterwards. The presentation reviewed the many resources available to help evaluate the pavement distresses and causes of the defects. In addition, it looked at the various patching, joint sealant and cracking repair materials for airport authorities and consultants to consider when repairing concrete defects.



Concrete Saskatchewan's Ashley Campbell

→ Concrete Sask Pavement Seminar

CAC staff took part in the Concrete SASK seminar on concrete pavements giving presentations on the following: concrete pavement basics, sustainability & low carbon concretes and basics of construction and maintenance.

→ Alberta Concrete

CAC staff were key presenters at a 2-day workshop organized by Concrete Alberta on concrete pavement design and maintenance. The first day reviewed concrete pavement basics for design, construction and maintenance and reviewed the design and construction of a concrete roundabout in Red Deer. The second day focused on how to properly use several different concrete pavement thickness design software.



Western Region Highlights



Industry Affairs



British Columbia

Emerging from the COVID-19 pandemic as one of Canada's most popular Premiers, John Horgan provided in early 2022 some candid thoughts on his battle with throat cancer and the ensuing radiation treatments. In the summer, he announced that he was free of cancer and would be stepping down from his role as Premier in the fall. The BC NDP began a leadership process, with David Eby announced as a leading contender; however, this ended awkwardly when his only competitor, Anjali Appadurai was disqualified, leaving David Eby as the only candidate.

David Eby was sworn in on November 18, 2022 as the new NDP leader and BC Premier. With the BC NDP's strong majority in the BC Legislature (holding 57 seats, versus 27 for the BC Liberals, two for the Green Party and one independent for a total of 87), the NDP does not need to call an election before the scheduled election date of October 19, 2024. With a new Premier and his appointment of a new cabinet

scheduled for early December, CAC is making plans to work with Concrete BC to host a BC Lobby Day in the first quarter of 2023.

Kevin Falcon, the opposition BC Liberal Party's new leader, was chosen in a more conventional process, being elected from among seven candidates in five rounds of voting on February 5, 2022. Mr. Falcon replaces Andrew Wilkinson who resigned in late 2020 after the Liberal party had its worst election result in recent history, following John Horgan's snap-election during the height of his COVID-19 popularity. The party recently held a vote amongst its members that resulted in 80% of its voters supporting its renaming as the BC United Party. This will need to be approved at the party convention in early 2023. The opposition Liberals / BC United are preparing themselves for a potential early election, anticipating that the BC NDP government may choose to take advantage of their current popularity to leverage a mandate for their new Premier.





Alberta and the Prairies

Alberta Premier Jason Kenney lost as much popularity in Alberta during the COVID-19 pandemic as John Horgan gained in BC, and with a marginal 51.4 per cent support from his United Conservative Party (UCP) at its leadership review, on May 18, 2022 he announced that he would be stepping down. A leadership campaign with seven candidates ran through the summer, and Danielle Smith was chosen by her party in October. She was elected to the Alberta Legislature on November 8, 2022 through a by-election in the riding of Brooks-Medicine Hat.

Alberta's next general election is scheduled for May 29, 2023. We will be meeting with the Premier and key members of her cabinet as part of our ongoing advocacy work in the lead up to the election.

The CAC continued to have meetings with government officials in Manitoba as part of our work to widen approval for lower carbon cement and concrete. We did not engage directly with the government of Saskatchewan in 2022, and instead played a supporting role to Concrete Saskatchewan on their advocacy efforts. We plan on resuming face-to-face meetings with officials in Saskatchewan in 2023.

Government Relations

Common in the provincial budgets released in BC, Alberta, Saskatchewan, and Manitoba were increased investment in capital infrastructure. After two challenging years through a pandemic, there appeared to be a balanced approach by provinces in delivering investment in resilient infrastructure. There continues to be attention to healthcare and the environment. The BC government released its provincial budget on February 22, 2022 and this year again this NDP government increased its capital infrastructure spending to a record \$27.4 billion over three years. This includes several megaprojects, including the Broadway Subway (\$411 million); the Patullo Bridge replacement (\$300 million) and the Surrey-Langley Automated Transit (\$290 million). Significant funds were also allocated to repairs to the BC highway system resulting from the disastrous flooding that occurred in November 2021.



The Alberta government budget received mixed reviews, with controversy centered on apparent decreases in health care and advanced education spending. Although there were significant funds allocated (\$750 million) to COVID contingency and new funds for a Clean Hydrogen Centre.

In-person engagement with government officials resumed, with one of those early opportunities being the CAC's attendance at the Globe 2022 conference in Vancouver. This annual environmental conference was held in April and was well attended by provincial and federal government officials. CAC staff, along with cement company representatives, had an opportunity to meet with and speak with numerous officials, including: the BC Premier; George Heyman, Minister of Environment and Climate Change Strategy; and Ravi Kahlon, Minister of Jobs, Economic Recovery and Innovation.





MLA Garth Roswell, CAC's Glen Furtado, MLA Pete Guthrie, CAC's Martha Murray and former CAC president and CEO Michael McSweeney at the Calgary Stampede.

Our submission to the BC Standing Committee on Finance and Government Services in June emphasized our industry's interest in re-designing the Clean BC program for industry, from the current carbon tax to an Output-Based Pricing System (OBPS) that mirrors the federal system, as well as the need to address competitiveness and carbon leakage. We indicated our support for governments investment in infrastructure and continued to re-iterate the need for government to focus on using Portland-limestone cement (PLC). Later in the summer, the BC Ministry of Transportation's announced it was moving to a wider acceptance of PLC in its transportation projects.



The CAC's Glen Furtado at Concrete Saskatchewan's AGM.

In Alberta, the CAC continued engagement with Alberta Environment and Parks on its interim review of the Technology Innovation and Emissions Reduction (TIER) Regulation. The CAC also continued its support for government through its attendance at networking sessions during the summer's Calgary Stampede. There the CAC met with several officials, including the Minister of Transportation to continue to advocate for Alberta Transportation's adoption of lower carbon cements within their standard specifications.

The BC Ministry of Environment and Climate Change Strategy has been carrying out a review of BC's carbon pricing system. As part of that review, the cement industry submitted its collective input (namely the transition to an OBPS that aligns with the design of the federal system) by way of written and online submissions in the summer, and virtual dialogue. We will be engaging further with government officials before the end of the year and with the Finance and Environment Ministers in early 2023. The BC government has indicated that it will not be announcing revisions to the current program until its next budget in mid-February 2023.



Local Government

The Union of BC Municipalities (UBCM) held its annual convention in Whistler in September. The CAC attended and re-connected with numerous municipal and provincial politicians from across the province. The CAC, along with Concrete BC, hosted a reception during the convention which was attended by over 250 municipal representatives, Provincial Ministers and government and opposition MLAs.



Ken Carrusca and Martha Murray at CAC's UBCM Reception.

BC Municipal Elections were held on October 15, 2022. There were many interesting political races across the province, with the new City of Vancouver Mayor, Ken Sim, and his ABC ("A Better City") party emerging a strong winner, with majority representation on City Council, Parks Board and School Board. His platform focused on public safety and a return to the focus on core services. The CAC will be reaching out to meet with key Mayors and Councilors in the coming year as part of our ongoing advocacy work.

The CAC continued its work in fostering strong relationships with Metro Vancouver officials. Metro Vancouver has regulatory authority delegated from the Ministry of Environment, and manages waste and recycling in the region. CAC has strong relationships with its senior staff and many of its board members. In addition, CAC secured in 2022 a position on Metro Vancouver Solid Waste and Recycling Industry Advisory Committee. This year marked a return to in-person attendance at the Metro Vancouver organized Zero Waste Conference, which continues to serve as a central networking venue for those involved in the circular economy and waste-based fuels.

Highlighting the importance that has been identified with the need to modernize procurement policies at all levels of government, the CAC supported member companies and independent concrete suppliers operating on Vancouver Island to help develop proposed revised language to the City of Langford's green concrete policy. An update to Langford's policy is expected in late 2022 or early 2023.



Final address at UBCM Whistler by then BC Premier John Horgan.





Expanding Awareness and Technical Affairs

Sharing information with non-traditional audiences was a focus in 2022. We built relationships and expanded the low carbon cement and concrete knowledge base of consulting engineers, associations, and academic institutions.

The CAC sponsored a panel session at the Federation of Canadian Municipalities (FCM) annual conference in Regina in June. CAC's Adam Auer and Sarah Petrean shared their knowledge of Green Procurement with a diverse and receptive audience.

The CAC delivered Concrete Pavement Seminars in Saskatchewan and Alberta in collaboration with Concrete Saskatchewan and Concrete Alberta, respectively. We continue to support the efforts of Concrete Alberta with their Concrete Wins program which models the work done by Concrete Ontario.

Targeting specific capital projects was another tactic the CAC used this year to demonstrate to government officials and decision makers the benefits of updating specifications and standards to support the use of lower carbon cements. An infographic was developed for the City of Calgary's Green Line LRT project – a \$5 billion infrastructure investment that presents significant opportunity to avoid GHGs through incorporation of lower carbon cement.

The CAC recognizes the importance of educating the designers and decision-makers of tomorrow on the work our industry is doing to decarbonize. In late Fall 2022 we had the opportunity to deliver the Sustainability portion of the Concrete Technology course to 120 students at the Southern Alberta Institute of Technology (SAIT), and to a course in the School of Construction and the Environment at British Columbia Institute of Technology (BCIT).



Ontario Region Highlights



Industry Affairs

Doug Ford's Conservatives won another majority government on June 2, 2022, giving them another four years of governing in the province. With the Opposition effectively non-existent after the resignation of NDP leader Andrea Horwath and a new Leader Marit Stiles only appointed in early December, the government is in a strong position to move forward on their key initiatives early in the mandate. The government has been very supportive of industry and construction throughout the pandemic and in the past year, including significant investments in infrastructure in the 2022 budget. With the focus now squarely on building a strong economy post-pandemic and with economic uncertainty looming globally, the focus of our advocacy efforts will be on industry competitiveness and the clean economy opportunity.

Interactions have now resumed in person and we have taken this opportunity in the summer and this fall to meet with both political staff and bureaucrats face-to-face. We continue to engage both in-person and virtually on a regular basis to advance key initiatives of our member companies and the Association.



Government Relations

Our interactions over the past year began with a focus on a long-term investment in infrastructure. Our 2022 pre-budget submissions requested that the government commit to a robust, predictable medium-term infrastructure investment, noting a predictable funding plan for the next three-to-five years would provide the certainty required for employers and contractors to help drive the Ontario economy. In the April budget, the Ontario government committed to planned investments over the next 10 years totaling \$158.8B, including \$20B in 2022-23. This budget was passed in the summer after the successful re-election of the Ford government.



With a strong infrastructure investment commitment, our focus has now turned to driving competitiveness through opportunities in the clean economy and establishing an industrial decarbonization strategy. Such a strategy can establish Ontario as a leader in attracting investment to Ontario to support the province's economic prosperity in a rapidly decarbonizing global market.

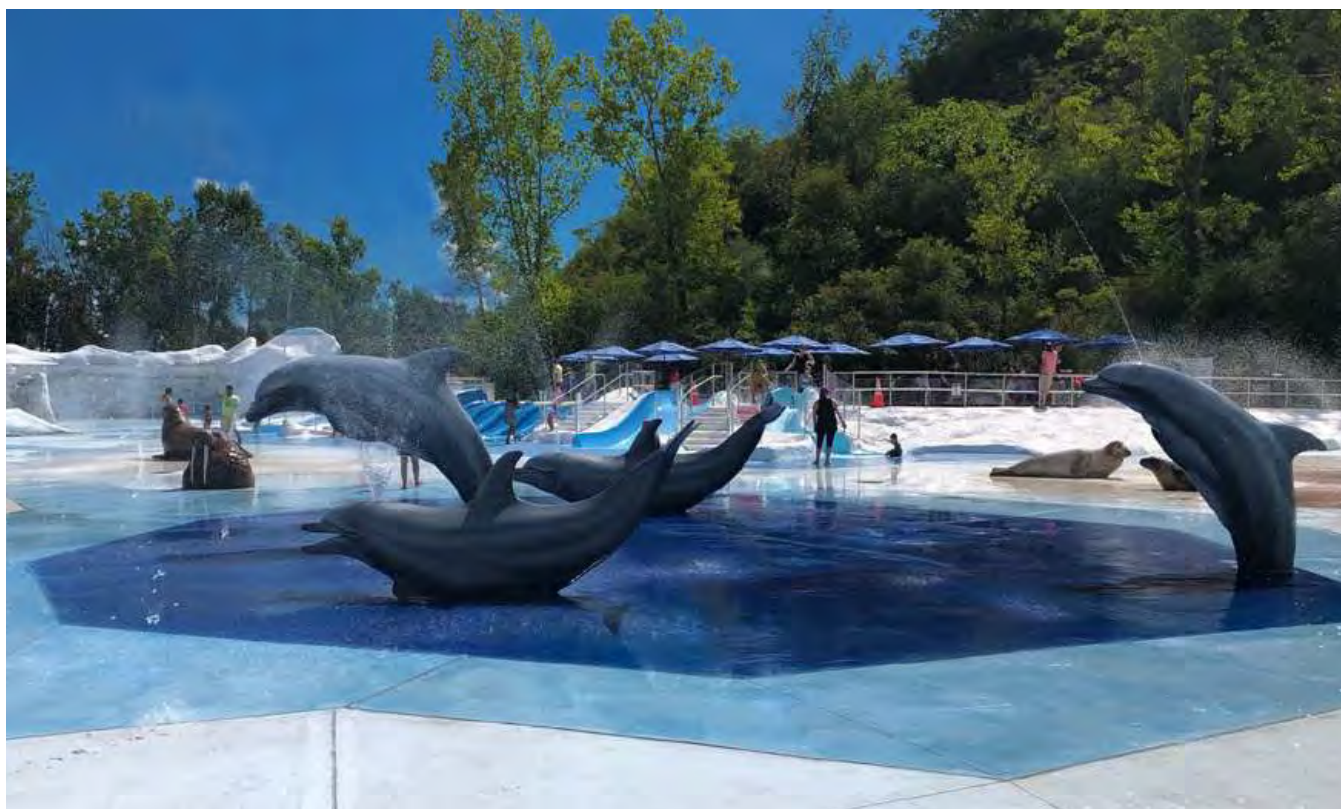




Key elements of this strategy would include:

- leveraging the Emissions Performance Standard (EPS) to protect competitiveness and attract low carbon investment in Emissions Intensive Trade Exposed sectors (EITEs) such as cement;
- establishing demand for low-carbon innovation through the strategic use of procurement, performance-based incentives and carbon contracts for difference;
- investing directly in innovation with financial incentives at least as generous as other Canadian jurisdictions and the U.S.; and
- attracting the labour force needed to keep Ontario's economy moving.

We continue to emphasize our willingness as an industry to be an active participant and partner in the economic recovery of the province. We have ongoing discussions and outreach with officials and ministerial staff in our targeted Ministries of Environment, Infrastructure, Economic Development, Natural Resources, Labour and Transportation.





Adam Auer with Ontario Liberal MPP Ted Hsu (Kingston and the Islands) at a CAC dinner with the Ontario liberal caucus at the AMO conference in Ottawa.

Cabinet Shuffle and New Introductions

Following the election in June most Cabinet Ministers remained in their previous positions. This provides both stability and the opportunity to build on previous relationships. With the exception of Natural Resources and Forestry, all targeted Ministries continue to have the same Ministers. Letters of congratulations to the Premier and key Ministers went out from the CAC after the election and we had the opportunity to host several of them at our August reception at the Association of Municipalities of Ontario (AMO) conference in Ottawa.

Current and Ongoing Issues

The CAC and its members continue to work with the provincial government to ensure that the provincial EPS program considers the competitiveness impacts and risk of carbon leakage. This includes ensuring that the stringency does not negatively impact the competitiveness of industry, revenue is recycled back into industry to support economic competitiveness, additional support is provided for the deployment of carbon capture, utilization and storage, and consideration is taken to develop an offset system.

We have resumed our work with the Ministry of Natural Resources to advocate for the removal of fees on the limestone that is used in the cement manufacturing process or any aggregate that does not make any use of public infrastructure. We are working with the Minister's political staff on removing these fees, as well as the Ministries of Red Tape Reduction and Municipal Affairs and Housing.

With the most recent focus on building 1.5 million homes over the next ten years and the recently promulgated More Homes Built Faster Act, the CAC is working with the Ministry of Municipal Affairs and Housing to support this initiative while ensuring that any re-zoning of land does not negatively impact the industry's ability to operate in a community.

Reducing regulatory burden continues to be a key focus of the Ford government and we monitor regulatory postings and legislation on an ongoing basis to ensure that the competitiveness of the industry is maintained.





Lehigh Hanson's Nektarios Papanicolaou, CAC's Adam Auer, Lafarge Canada's David Redfern, the Hon. Graydon Smith, Minister of Natural Resources and Forestry, Ash Grove Cement's Marie Glenn (CAC Chair), Votorantim St. Marys Cement's Filiberto Ruiz and CAC's Martha Murray at CAC's Queen's Park Lobby Day.

Ontario Lobby Day

For the first time in three years, the CAC along with its allies, were able to host an in-person lobby day on November 29th. With over 13 meetings throughout the day it was a successful return to our annual event. The popular reception in the evening in the Ontario Legislative Dining Room was attended by over 200 people, including Ministers and their staff.

Partnerships with Cement and Concrete Allies

We have been working with cement members and concrete allies over the past several years as part of our initiative Concrete Wins to promote and advocate on common areas of interest and concern with the government and political parties. We had several political meetings prior to the election to advance the industry as a collective voice. We continue to believe that there is strength in having a common voice and while Concrete Wins is taking a different approach moving forward, the end goal remains to work together to approach government on critical common issues, including our roadmap to net-zero and persistent labour issues.



As part of their Ontario Lobby Day, CAC hosted a reception at Queen's Park with MPPs, staff, and cement and concrete industry partners.

Concrete Ontario Advocacy

In addition to our advocacy work to support CAC priorities, we also advanced specific issues for Concrete Ontario with the provincial government. This included Ministry specific meetings, committee appearances, budget submissions, and joint letters to the provincial government. We continue to build this relationship and look for opportunities to leverage the collective strength of our two organizations.



Quebec Region Highlights



Government Relations

Our interactions with government officials ramped up in 2022 compared to the previous two “pandemic” years. We continued to educate elected officials and bureaucrats on the economic and environmental issues that our members are facing. In March, we conducted a lobbying blitz in collaboration with five provincial associations from the cement and concrete sector (Association Béton Québec, Tubécon, Institut d’acier d’armature du Québec, Association des entrepreneurs en coffrage structural du Québec, Association des propriétaires de pompes à béton du Québec).

A total of 20 meetings were held, some virtual and some in-person. Several Ministers and their staff were part of these meetings, as well as representatives from opposition parties and a number of senior bureaucrats. We were successful in raising awareness about our sector and its importance for Quebec’s economy as well as the role that we can play in helping the Quebec government reach its GHG emission reduction targets.



In October, the Coalition Avenir Québec (CAQ) was re-elected with a strong majority, which will allow for some continuity and stability. Over the past four years, the CAQ has proved to work well with industry. Their focus on economic development, innovation and productivity aligns very well with our own priorities. The return of all key Ministers is also a positive development. The CAC has already established a very good relationship with many Ministers and other elected officials over the past four years and it will be easy to build on these existing relationships in 2023 and beyond.



The priorities for the government are expected to be similar to what they were in their first mandate, with an emphasis on entrepreneurship, technology and innovation. During their previous mandate, the CAQ initiated a reflection on government procurement practices in order to support "local purchases" and low-carbon goods. We will take advantage of this opportunity for our industry to promote the use of cement and concrete. Our messaging to the Quebec government in 2023 will also revolve around the contribution of the cement and concrete industry to the local economy in all regions of the province, and the barriers (mainly administrative) that our sector faces that impede our ability to replace fossil fuels in cement kilns with lower carbon fuels from the waste stream. CAC officials are currently building relationships with the new political staff in key Ministers' office. In addition, we are also planning another lobbying blitz in collaboration with our Allies, most likely in the Spring 2023.



Industry Affairs

Working with partners remained a priority for the CAC in 2022. As a Board member of CPEQ (Quebec Environment Business Council), and a proactive player in CPEQ Committees, we took advantage of numerous meetings and opportunities throughout the year to discuss government programs and policies with other industry sectors, identify common concerns and develop joint strategies when appropriate.



The most critical file for the cement industry in 2022 was the negotiation around the rules for the cap-and-trade program beyond 2023. CAC officials also dedicated significant time and energy towards fighting unnecessary red tape, especially as it relates to the environmental authorization process under the Environment Quality Act. In the second half of the year, the issue of public transparency and the protection of business confidential information emerged as a major concern to industrial facilities, including cement manufacturing plants.





MP Peter Schiefke (Vaudreuil-Soulanges) and Minister of Environment and Climate Change the Hon. Steven Guilbeault in Saint-Constant, Quebec for the launch of the Net-Zero Challenge (Photo credit to C. Brault).

Québec's Cap-and-Trade Program Post-2023

Discussions with the Quebec Government on the cap-and-trade program post-2023 have been ongoing since 2019. Government officials initially presented an aggressive approach to reduce emissions, including significant reduction in the free allowances regime, while also ramping up funding programs to help the industry transition to a low-carbon economy. The CAC submitted written comments twice during this process, emphasizing the need for greater certainty, as the approach presented by the Government introduced new factors that bear great uncertainty, thereby providing a disincentive to investment and innovation. This long process culminated this year with the publication of the proposed regulations for the formal public comments period. The CAC worked with its members on the analysis of the proposed rules and sent formal comments. The final regulations were released just before the election campaign. The new rules for the free allowances' regime have been significantly improved since the beginning of the consultation in 2019. While it will still be a challenge for cement plants to comply with the requirements, the new rules will provide certainty and allow facilities to plan ahead as it will be possible to know how many free allowances will be received for each year of the period covered by the regulations (2024-2030). Our outstanding concerns are mainly about the complexity of the administrative processes that will govern the program and this will be a continued focus of our engagement in the province in 2023.



Administrative Burden

In 2022, CAC officials kept raising the issue of unreasonable delays and administrative burden as part of the environmental authorization process. We had hoped that the publication of an "omnibus" regulation would help but it did not address much of the problem. This will remain a priority in 2023.



Public Access to Information

An important ruling was recently issued by Quebec's Commission d'accès à l'information which could have significant consequences on the ability of CAC Members to protect secret information. Following a citizen's request to obtain the data of all measurements of the atmospheric emissions from a smelter, government officials sent the citizen the document responding to his request, withholding information of a technical nature, in application of the provincial law on access to information and protection of personal information. The citizen applied to the Commission d'accès à l'information to review the Ministry's decision, arguing that a table providing information on the metallurgical concentrates and by-products processed at the smelter should be provided.



The Commission concluded that the table at stake consists of information that was provided to the Ministry pursuant to some specific sections of the Environmental Quality Act (EQA) and associated regulations, which makes it public under section 118.4 of the EQA. In this context, the Commission ordered that the table be communicated to the citizen who requested it. This decision could have consequences for all industrial facilities in Quebec that must provide detailed information on their operations when applying for environmental authorizations and operating permits. Such information routinely includes data that is considered to be business confidential. The CAC has initiated discussion with other industrial sectors operating in Quebec to determine if a common strategy would be useful in making our position known to the government.



Markets and Technical Affairs



An important part of our activities aims at promoting the sustainability and durability of concrete infrastructure. This is done through education on life cycle analysis and life cycle cost analysis, as well as through communicating to government officials the importance of our sector to the economy and to the achievement of Quebec's GHG reduction targets. Given the Legault government's focus on economic development and its propensity to promote Quebec nationalism, the CAC continues to emphasize the local and regional nature of the cement and concrete industry.

We also sought to enhance our collaboration with our Allies in 2022, making a deliberate effort to speak from a unified voice. In addition to the successful lobby days mentioned earlier in this report, the CAC worked closely with its concrete Allies from ABQ and Tubécon to develop specific common priorities for research that were presented to the Centre de recherche sur les Infrastructures en béton (CRIB), an important network of academic researchers on concrete infrastructure from nine universities.



Atlantic Region Highlights



The CAC attended the Atlantic Concrete Association (ACA)'s annual general meeting during the summer. During the meeting, it was decided to strike a new government relation committee and CAC officials agreed to participate in this new committee.



On the cement manufacturing front, the Government of Nova Scotia introduced amendments to its Environment Act in October, in response to a federal mandate that requires provinces and territories to put a higher price on carbon. The changes will allow the government to create an output-based pricing system for industry and put a price on carbon pollution created by industrial emitters in the province, including one cement plant. The system, which will replace the current cap-and-trade system, will include emissions reduction targets, also called facility performance standards, and if emitters do not meet their target, they will have to pay a carbon price.

In August, we were invited to present and participate in a stakeholder session on low-carbon concrete procurement hosted by the Government of Nova Scotia. The session followed the release of a preliminary report commissioned by the Nova Scotia Office of Regulatory Affairs and Service Effectiveness entitled "Sustainable Building Materials: Low Carbon Concrete." The report was prepared by a team that was led by a researcher from Dalhousie University. The CAC's presentation focused on the development of its Action Plan to Net-Zero Concrete which included an overview of the industry and its focus on reducing GHG emissions through further use of lower carbon fuels, widespread adoption of Portland-limestone cement, greater use of SCMs and achievement of higher GHG reductions through new performance-based procurement policies and specifications needed to allow the use of higher clinker substitution. The presentation generated significant discussion on how to achieve greater use of PLC.



Codes and Standards



This year, the focus for the Codes and Standards work was to continue aligning with the industry's commitment to net-zero concrete by 2050. Tasks that stem from our strategy were filtered through “progressive green lenses”.

Codes and Standards operate at the core of the CAC mandate to serve the best interests of our members. Technical expertise supports our advocacy with the government and provides the framework for the industry's market share.



Four key pillars form the strategy of the Codes and Standards work, with the goal to facilitate new cement and concrete products acceptance, as well as to protect our market share. The pillars are:

Develop and/or improve the acceptance criteria for our products.	Improve the design standards for the end product, that is reinforced concrete. Improved design guidelines make reinforced concrete structures a more attractive solution in terms of economy, safety, resiliency, sustainability, and versatility.	Advocate for concrete as the material of choice compared to the other competing industries, such as wood and steel. Develop an allied network of academics and consultants to improve our influence in code committees.	Support and propose research projects that provide the scientific evidence to support our advocacy within the government and the industry priorities.
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National Building and Fire Code of Canada (NBCC)

The CAC holds active memberships on three NBCC Standing Committees (Fire Protection, Structural Design and Earthquake Design) and also participates as required on the Standing Committee on Housing and Small Buildings. The 2020 NBCC was published in March 2022.

The first set of changes to the 2020 NBCC was issued at the end of 2022 for public review. Public reviews for future sets of proposed changes to the 2020 editions of the Codes will also take place in 2023 and 2024. We expect that there will be an “interim” update to the NBCC in 2023 before a new edition becomes available in 2025.

Key NBCC issues currently being addressed by the CAC include:

→ NBCC New Governance Model and the RCT Agreement

The Regulatory Reconciliation and Cooperation Table (RCT) is a federal-provincial-territorial body established by the Canadian Free Trade Agreement (CFTA) to oversee the regulatory reconciliation process and promote regulatory cooperation across Canada. A new governance model for the National Code Development System was drafted in collaboration with the Provinces and Territories and the agreement was signed by all parties this last year. As captured in the agreement, Canada (NRC) will support the work of all Parties within the National Code Development System to execute change from the current system into a more inclusive (i.e. including Provinces and Territories), agile, responsive governance model to achieve a desired system performance that includes collective and effective decision-making by all Parties, integration of all Parties' code development activities and the engagement of stakeholders and the Public. This means that the NBCC will be the de facto building code for all Canada adopted in a timely manner and it will replace all provincial building codes.

A provincial jurisdiction may still maintain a limited number of exceptions to the National Model Code. These exceptions will be applicable to that particular province only. Provinces and Territories agreed to adopt the 2020 NBCC within 12 to 18 months after its release. The first province to adopt the 2020 NBCC will be Alberta in March 2023. This initiative aims at reducing red tape and inconsistencies across federal and provincial governments. It is of great benefit to the industry because our participation in the NBCC will be even more critical to influence decisions made across Canada. The NBCC adopts the CSA concrete standards as is. The CAC supported the addition of a new ministerial body that will provide the technical priorities stemming from government policy for each new Code cycle. Currently there is work underway to reduce the variances between Provinces/Territories and the CAC has had the opportunity to provide comments during the consultation period.



→ **Technical Changes That Benefit the Cement and Concrete Industry**

The new provisions in farm buildings allow for more robust seismic design. The farm building code was outdated and the changes bring it up to speed with all other occupancy types. Significant changes in seismicity in Canada require that structures withstand more severe seismic events. These two changes are beneficial to the cement and concrete industry as they apply across the board for all building materials and essentially project a market growth for concrete.



Our Advocacy Efforts

Bill S-222

The CAC assisted the Canadian Association of Fire Chiefs in their presentation to the Senate for Bill S-222, which proposed that all federal government buildings be constructed of wood. We were successful in convincing the committee to revise the Bill to “the Minister shall consider any potential reduction in greenhouse gas emissions and any other environmental benefits and may allow the use of wood or any other thing — including a material, product or sustainable resource — that achieves such benefits.”. The Bill passed the Senate and it is now at the 2nd reading in the House of Commons.

Increasing coordination with the PCA

We share many opportunities and challenges with our U.S. colleagues when it comes to advancing codes, standards and specifications. CAC staff Stamatina Chasioti and Tim Smith were pleased to attend the Portland Cement Association's cement and concrete standards and specifications brainstorming session in June 2022 in Washington, D.C. as part of an effort to identify synergies and reinforce collective outcomes.



Stamatina Chasioti visited the Queen's University Engineering Building Materials Lab to learn the important ways they are working to reduce concrete's carbon footprint.



CSA Standards — Cement and Concrete Activities

CAC participates in the development of CSA standards, including CSA A3000 Cement; CSA A23.1 Concrete; CSA A23.3 Design of Concrete Structures (as Secretary of the committee); CSA S413 Parking Structures; CSA S850 Design and assessment of buildings subjected to blast loads, and the CSA S6 Bridge Code. Current issues that the CAC is addressing through the CSA with relevance to the cement and concrete industry are described below.

2022 edition of the CSA A3000 – Cementitious Materials Compendium

The 2022 CSA A3000 draft is currently in public review and it will be published within the next months. Significant changes from the previous edition include the following:

- a) Testing frequencies added for Internal Sulphate Attack (A3004-C5).
- b) Chemical requirements added for ground glass pozzolans.
- c) Lime-pozzolan activity test requirements added for natural pozzolans.
- d) Sulphate resistance testing requirements changed to allow the use of A3004-C6 for Portland or Portland-limestone cements.
- e) A new test method for measuring the percent passing the 160-micron sieve to support the limit required for harvested fly ash in Table A3.
- f) Creates Classes of SCMs and then allows products from within the same Class of SCM to be blended to produce a compliant type of SCM.
- g) Removed the LOI limit in Table 7 for natural pozzolans.
- h) Permitting the use of ground glass in blended hydraulic cements with LOI restrictions.
- i) Atmospheric steam test removed along with requirements for masonry and mortar cement.
- j) Other changes have been made to harmonize with various ASTM and ACI publications, including change of terminology from supplementary cementing materials to supplementary cementitious materials.



Recycled Aggregate

There are changes underway in CSA A23.1 to permit the use of recycled aggregate in structural applications. Two categories of recycled aggregate were considered:

→ Reclaimed concrete material (RCM)

RCM is concrete material made from after-use hydraulic cement concrete obtained from demolition of built concrete elements such as sidewalks and concrete pavements.

→ Returned hardened concrete (RHC)

RHC is concrete material made from unused plastic concrete from known sources, that has been returned directly to the concrete plant or obtained from in-plant concrete waste streams, which is allowed to harden and then processed by crushing.

A maximum of 30% RHC or RCM is allowed for use with virgin aggregate. Concrete containing RCM is limited to use in exposure classes C4, F2, N, A4, R1, R2 and R3. You will soon be able to use aggregate from concrete demolition in structural concrete for residential basements.

Concrete Design

We are in a new 5-year cycle following the publication of the 2019 edition. Important updates on seismic design and anchorage will be available in the next edition in 2024. High strength reinforcement will be introduced for the first time which will reduce reinforcement congestion and improve the constructability of reinforced concrete structures. This technology has great potential in reducing embodied carbon through lean construction.

Parking Structures

The new Parking Structures standard was recently published. The Committee received pressure throughout the year to allow wood to be used in parking structures. The CAC successfully defended the use of concrete and the committee rejected the proposal for allowing wood due to durability concerns. New provisions permit the use of corrosion-resistant rebar. In addition, it was clearly identified in the scope of the standard that provisions for the better use of concrete apply across the board for structures with parking garages including residential construction. This clarification puts pressure on the homebuilders to use quality control in concrete.

Canadian Highway Bridge Design Code S6 (CHBDC)

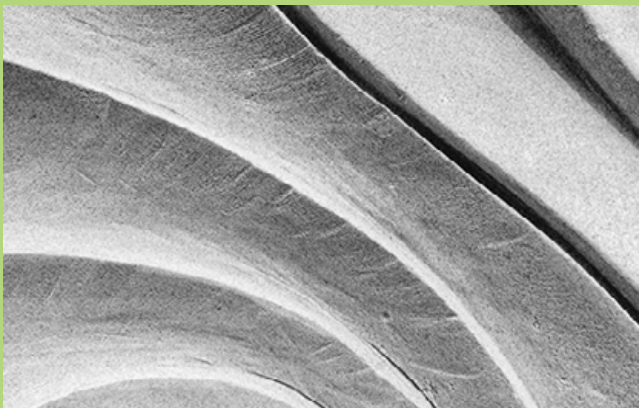
A new edition of the Code is underway. CAC Director of Codes and Standards Stamatina Chasioti is the chair of two working groups: concrete columns, and concrete materials. A highlight of this work is to provide guidance about durability of concrete using performance-based criteria and testing methods with a combination of corrosion-resistant reinforcing bars and increased concrete cover.



Research and Development

CAC Research Proposal Funded by the CSA

\$35,000 dollars were awarded for the project proposal titled “Methods for evaluating the reactivity of supplementary cementitious materials (SCMs) for use in concrete” submitted by the CAC. The cement industry worked for one year with the University of New Brunswick and the University of Sherbrooke to investigate the performance of the test over a wide range of pozzolans. With plenty of new materials in the market and firms marketing SCMs with unknown performance, we want to make sure we have the right tools for fair evaluation. The project is near its completion and the final report is pending. The test results were made available to the CSA A23.1 Technical Committee and a technical poll was submitted.



CSA Clean Fuels Standard for Cement Production

The NRCan Clean Fuels Fund awarded a contract to the CSA to develop a standard addressing activities related to production, generation, distribution, delivery, storage and end use of clean fuels for cement production. CAC members agreed to participate in this initiative to develop the scope and we expect the technical committee to be launched sometime in 2023.



Publications

The Concrete Design Handbook will be updated in 2023 to reflect new requirements and revised specifications of the CSA cement and concrete materials standards and the CSA concrete design standard. More specifically, the current CAC Concrete Design Handbook references the 2014 edition of CSA A23.3 and must be updated for the 2019 edition of that Standard as it contains the Explanatory Notes to the A23.3 Standard that educators and practitioners use in applying the Standard to reinforced concrete design in Canada.



New Design and Control of Concrete Mixtures 9th Canadian Edition

The Design and Control of Concrete Mixtures (EB101) 9th edition was published in January 2022. The new edition includes updates on PLC, sustainability, aggregate pyrrhotite and UHPC. This publication is the main educational material produced by the Association. The document certainly fills a need as there is a high demand for it. In the first three quarters of 2022, EB101 sales show a 63% increase in number of sales when compared to the same period in 2021. Revenues over the same period were 91% higher than 2021 due to the increase in demand as well as an increase in price of the new edition of the book.

Going digital and offering subscriptions

Both the Design and Control of Concrete Mixtures and the Concrete Design Handbook are now offered in digital format. The new digital format is compatible with programs that offer accessible formats using the web tool plug-in for people with disabilities.





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