



# Strategic planning workshop report for the Engineers Canada Strategic Plan 2022-2024

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## About the strategic planning workshop report

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Engineers Canada is in the process of developing its upcoming 2022-2024 strategic plan. The current 2019-2021 strategic plan was approved in May 2018. The process to develop the 2022-2024 strategic plan started in summer 2019. A draft environmental scan was sent for consultation with regulators, the Canadian Engineering Accreditation Board (CEAB), the Canadian Engineering Qualifications Board (CEQB), and Engineering Deans Canada (EDC) in September 2019. The environmental scan was approved by the Strategic Plan Task Force in December 2019 and the strengths, weaknesses, opportunities, and threats (SWOT) and strategic risks analysis was approved by the Finance, Audit, and Risk (FAR) Committee in December 2019.

The final environmental scan, SWOT and strategic analysis was sent to the Board, presidents, CEAB, CEQB, CEOs, and officials' groups in February 2020. A foresight workshop was held with Board directors, presidents, CEOs, and representatives from CEAB and CEQB on February 25, 2020. A draft foresight report was sent for feedback to Board directors, presidents, and CEOs in April 2020 and the final foresight report was included in the May 2020 Board Meeting agenda book.

On August 13-14, 2020, the Engineers Canada Board held a hybrid (in-person and virtual) strategic planning workshop to confirm the organization's vision and generate a consensus on potential strategic priorities. Attendees included Board directors, representatives of the CEAB, CEQB and CEO Group, a member of the FAR committee, and Engineers Canada staff (the full participant list available in Appendix 1). In-person and virtual participants were arranged in tables and virtual groups, which were set up to ensure a diversity of perspectives at each table.

During the workshop, participants received a presentation on COVID-19's potential impact on regulators and on the selection of strategic priorities. They also received a presentation from staff on a proposed vision statement and potential strategic priorities, which were based on input gathered during the 2020 February foresight workshop. The purpose of this report is to summarize discussions.

## Roundtable and introductions

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Attendees were asked to identify themselves as well as share how they will know if they had a successful workshop. In general, participants hoped they would converge around the same common priorities and support a strategic plan that would give clear direction to the organization. Many also expressed hope to reach consensus on the vision and strategic priorities, encourage regulators to collaborate toward shared goals, and foster a renewed sense of purpose for the federation.

## Impact of COVID-19 on strategic planning

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Participants received a presentation that included an environmental scan conducted by staff as well as survey results where the Engineers Canada Board, CEO Group and Presidents were asked to identify potential 2022-2024 strategic priorities for consideration in support of regulators' response to this crisis. Results revealed that while the long-term strategic impact of COVID-19 is uncertain, there is a need to consider it in the strategic planning process.

The pandemic has led some regulators to experience delays in admission processes. An Ontario court has ruled that videoconference hearings can proceed. Women, Indigenous peoples, visible minorities, and people with disabilities are more likely to be negatively impacted by the ramifications of the pandemic. There are increased pressures on Engineers Canada to modify accreditation processes to accommodate online teaching. While a decrease in revenues for Engineers Canada is projected, the extent remains unknown.

Survey results highlighted that Engineers Canada could accommodate pandemic measures in accreditation. The organization could also gather COVID-related information and share best practices among regulators, develop guidelines on the practice of engineering and healthy workplaces, as well as promote the use of technology to the federal government.

## Proposed vision statement

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At the 2020 February foresight workshop, attendees identified elements and voted on their preferred vision statements. These were the top three vision statements:

- Strengthens and advances the engineering profession as a trusted and collaborative federation of regulators
- Advances engineering regulation and the profession through a unified national body
- Engineering regulators collaborating to advance the protection of the public

Following the workshop, a staff working group worked with these three options to create a clear, easily understandable vision that would be inspiring and realistic. This proposed vision statement was unveiled at the workshop:

**Advancing Canadian engineering through national collaboration**

Wording was chosen based on the following considerations:

Connotes progression and improvement  
Improving regulation  
Increasing diversity  
Growing our profile and influence

Limited to Canada  
Not just "the profession"  
Better information => better regulation => better engineering  
A more diverse profession => better engineering  
A more influential profession => better engineering

**Advancing Canadian engineering**  
through **national collaboration**

Who we are  
How we work  
The value we add  
Our relationship with the regulators

The floor was opened for comments:

- A member commented that they loved the statement but should add reference to diversity.
- Several Board members commented that the vision statement should stay as is, simple and clear.
- The vision could be interpreted differently yet remain meaningful.

The vision will be presented to the CEOs and regulator presidents at the October information session and submitted for consultation with regulators, CEAB, CEQB, and EDC.

## Proposed strategic priorities

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At the February foresight workshop, each table proposed up to five strategic priorities. Priorities were discussed and clustered on a wall and attendees voted on their top five priorities. Staff refined those priorities, considering:

- Alignment with the purposes
- Likelihood of being done in 3 years
- Complementing (not duplicating) regulators' activities
- Of national importance, likely to receive pan-Canadian support
- Addressing major trends and/or strategic risks

During this strategic planning workshop, this process was followed for each proposed strategic priority:

- Staff presented the proposed strategic priority, which included information on:
  - What Engineers Canada is currently doing about this matter under the current 2019-2021 strategic plan
  - What is the issue
  - How Engineers Canada could address the issue
  - What success looks like
  - Additional resources required

Following this presentation, attendees were invited to ask questions. Then, in-person and virtual break out sessions were held to discuss the proposed strategic priority, followed by a plenary session where Engineers Canada staff summarized group discussions.

The list of proposed strategic priorities that were presented and discussed were:

1. Accreditation
  - ‘Deliver improvements in accreditation’ or ‘strengthen the foundation of accreditation’
  - While two were presented, the Board was asked to select one
2. Foster trust and pride
3. Achieve harmonization
4. Accelerate 30 by 30
5. Reach financial sustainability
6. Adapt to emerging technologies
7. Continue commitment to excellence

The sections that follow provide an overview of the discussion related to each proposed priority.

## 1. Accreditation priorities

Under the current 2019-2021 strategic plan, Engineers Canada is delivering an Accreditation Improvement Program (strategic priority 1), which will: introduce a new data management system; improve the stakeholder communication and consultation process; provide training for the CEAB members, visitors, and HEIs; and introduce a continual improvement process. The new accountability in accreditation assessment framework (strategic priority 2) will annually assess the transparency and effectiveness of the accreditation system by stakeholders. This work is going on while the CEAB continues to accredit undergraduate programs (operational imperative 1) and make improvements to policies and procedures.

Staff presented the following potential accreditation priorities:

- Deliver improvements in accreditation, which would improve the current accreditation system
- Strengthen the foundation of accreditation, which could create a new accreditation framework, with impacts on non-CEAB applicants

At the end of this part of the presentation, the Board was asked to select one of the two priorities.

### 1.1. Deliver improvements in accreditation **option**

#### *1.1.A. What is the issue?*

The last major update of [Accreditation Criteria and Procedures Report](#) was 2015. Over time, criteria and interpretive statements have been added, creating inconsistencies, unnecessary work, and confusion for HEIs and accreditation visitors. While the Accountability in Accreditation Committee will make recommendations by the end of 2021, there is still a need to allocate additional resources to implement them.

#### *1.1.B. How will we address the issue?*

This first option proposed that expertise be retained to conduct an in-depth review of the Accreditation Criteria and Procedures Report and to support the implementation of the initial recommendations from the Accountability in Accreditation Committee.

An attendee asked what gaps exist in the current process. Efforts are being made to improve the system as part of the new data management system under the accountability in accreditation initiative. The first round of feedback on accreditation is expected this fall. This data will be analyzed and used to provide recommendations to CEAB on improvements to the accreditation process. This process is not static, it will be a continual improvement process. The Board recently approved a decrease in the number of required Accreditation Units (AUs), from 1950 to 1850. This recent decision also responds to the Deans' concerns associated with accreditation workload.

The last review of the Accreditation Criteria and Procedures report was conducted a long time ago. This report is very long, detailed and can be confusing for HEIs and accreditation visitors. A consultant would benchmark our system against others and a technical writer would revise the report to ensure clarity for HEIs and accreditation visitors. The purpose of this review would be to improve the existing documentation, not to change criteria.

Finally, while the Accountability in Accreditation Committee will bring recommendations, there is a risk that not assigning additional resources might prevent the CEAB from addressing all of them. Currently the Policies and Procedures Committee (P&P) is responsible for any changes that would impact policy, and their workload is high. It is unclear how many additional recommendations they could pursue.

A participant commented that it is not clear if the problem is confusion on the criteria or procedure or a lack of trust between HEIs and Engineers Canada.

### *1.1.C. What does success look like?*

- Accreditation participants have clear and consistent criteria and procedures
- CEAB addresses gaps and recommendations identified by the Accountability in Accreditation Committee
- Engineers Canada Board and regulators improve their relationship with HEIs

### *1.1.D. Additional resources*

Over 3 years, approximately \$1M including one additional person for the duration of the project and consultants to benchmark similar accreditation systems, revise the Accreditation Criteria and Procedures Report and implement initial recommendations from Accountability in Accreditation and associated report revisions.

### *1.1.E. Questions/comments from attendees*

The following questions/comments were received from attendees:

- Good work had been done to improve the accreditation system, but are these existing initiatives enough or is more significant undertaking required to meet regulators needs and address HEIs' concerns?
- Several expressed a desire to receive additional information to make an informed decision in support of the selection of one of the two accreditation priorities.
- Is the CEAB addressing EDC's list of concerns presented at the June 2020 CEAB meeting?
  - The CEAB Chair looked for the specific presentation. His response was provided later in the session.
- There will be a lower number of responses of the first round of the accountability in accreditation program as the accreditation visit cycle has been pushed back by one year, and one-time, one-year accreditation cycle extensions have been granted to all programs who received a favorable accreditation decision before June 5, 2020.
- The following analogy was used: selecting between these two priorities is like asking a client on whether they want to renovate or rebuild a building; not only does the client (in this instance the Board) needs more information, but it is likely to be an iterative process in which the client changes their mind in light of new information.
- Considerations should be given on the long-term sustainability of the current accreditation process from both the HEI's and volunteers' perspective. Consistency of treatment between CEAB and non-CEAB applicants could be desirable.
- The introduction of graduate attributes is the root of the issue and that the first step to solving this problem is to recognize that.
- Having been on a CEAB visit, a member expressed confidence in the system and an appreciation for the complexity of the task under option 1.
- Another individual mentioned that work to foster confidence in accreditation is currently underway and that perhaps a list of pros and cons of both options could be useful to inform decision-making.



- As per the newly adopted vision, Engineers Canada provides tools in support of regulators' licensure processes, including the work of CEAB and CEQB. Accreditation must be contemplated as part of the big picture as issues and inconsistencies are created when decisions are made in isolation. Not all players are equal; the Board must keep in mind who are the owners, the stakeholders, and the participants to focus on the big picture and address the issue at stake.
- The CEAB Chair went through the list one by one and provided a verbal overview of activities underway to address these concerns. He also explained that the CEAB's Policy and Procedures Committee and the Deans Liaison Committee (DLC) continuously work together on these matters. Given the new consultation process and complexity of issues, their concerns can take time to address and, in some instances, cannot be resolved to the deans' satisfaction.
- The Policies and Procedures Committee tracks all requests and provides responses to Deans' concerns. It was suggested that this list be shared with the Board.
- A request was made to add timelines for when concerns are expected to be addressed (when appropriate and possible).
- The CEAB Chair mentioned that there was no issue associated with adding timelines to the tracker.

## 1.2: Strengthen the foundation of accreditation option

### 1.2.A. What is the issue?

The lack of a clear definition of an academic requirement for licensure undermines the defensibility of accreditation and the assessment of non-CEAB applicants. Currently, the purpose of accreditation does not go beyond minimum academic knowledge and does not support the current accreditation criteria. Finally, the contact-based measurement of the minimum path is not aligned with recent educational delivery methods.

A lot of innovation is granted to institutions under the current system. The CEAB does not set the academic requirement for licensure; nor does the CEQB, which simply draws syllabi content from accredited programs' information. There is no anchor for the academic requirement in Canada as they are individually set by regulators. This undermines the defensibility of the licensure process for all. Mental health, program quality, education environment are all criteria that are not required for licensure, yet they are verified during visits. This adds to the Deans' concerns as it is outside the current purpose of accreditation as set by the Engineers Canada Board.

A measure of contact hours, the Accreditation Units (AUs), is used to ensure that all students follow a "minimum path." The AU was adopted as a conversion method between all of the different measures used by institutions. It reflected how engineering was taught in the 1990s; now it is being challenged by recent education practices as well as by the COVID-19 situation. Supporting a move to increased flexibility for online education would help HEIs attract international students.

### *1.2.B. How will we address the issue?*

This second option proposed that Engineers Canada work with regulators and stakeholders to define an academic requirement for licensure, to clarify and confirm the purpose of accreditation, to benchmark Canadian engineering accreditation, and to modify the accreditation system with due consideration of current educational delivery methods.

Input from engineers, engineering employers, and regulators would be needed to set an academic requirement for licensure. A small working group could be constituted, supported by experts in assessment, to propose a defensible requirement for licensure. The purpose of accreditation would likewise be developed by a small group of regulators and key stakeholders. Both items would be finalized through collaboration with all regulators and the 44 HEIs. Finally, the benchmarking of the accreditation system could be used along with the realities of the current educational environment, and the confirmed purpose and academic requirement for licensure to propose changes for a new accreditation system and a plan for its implementation. This would again be developed by a small group of regulators, CEAB experts and HEIs, and finalized through extensive consultation.

### *1.2.C. What does success look like?*

- Regulators have an academic requirement for licensure, applicable to all applicants for licensure
- All stakeholders understand the purpose of accreditation
- Regulators, CEAB, and the Board have agreed-upon purpose, criteria, and procedures for accreditation
- Students continue receiving a quality education

### *1.2.D. Additional resources*

Over 3 years, approximately \$2M, to hire facilitation services for the collaborative development of the purpose and academic requirement, expertise to benchmark accreditation and draft criteria and procedures report, as well as an additional CEAB staff to support all of the above projects and to develop and deliver any resulting training.

### *1.2.E. Questions/comments from attendees*

The following questions/comments were received from attendees:

- Based on previous experience with the competency-based assessment (CBA) project, the academic standard should seek to apply to all disciplines. Regulators grant P.Eng. licenses - not discipline-specific licenses - and setting a standard for each discipline would be time consuming and difficult.
- Agreeing to the review did not necessarily mean that the whole system would end up being revamped.
- The CEAB Chair mentioned that there are over 100 differently name accredited programs and that perhaps this review might lead Deans to want to keep the flexibility allowed under the current system.

- Is the US-based ABET's reliance on technical societies to provide content for entry-to-practice exams a viable model for Canada?
- There have been no incidents leading to the Engineers Canada Board not trusting HEIs with setting the content of engineering programs.
- Regulators adopting a psychometric exam for all applicants would increase the defensibility of their licensure processes, especially for non-CEAB applicants.
- Having a defined academic requirement would enable the profession to hold Canadian and foreign-trained applicants to the same standard using a national, psychometrically defensible exam. This exam would be more rigorous than the currently university-set examinations. The US creates large buckets of disciplines, a model that could be replicated in Canada. The current accreditation system was built in 1965. The recent COVID-19 situation has brought challenges to the system and to HEIs in meeting the accreditation requirements. If this situation persists, there is a risk that regulators could lose confidence in CEAB accredited degrees.
- Regulators' trust in accreditation is key and that consideration must also be given to government pressures to demonstrate fairness in the licensure process.
- A P.Eng. license is general and therefore, the scope of this project could be manageable, by keeping this at the forefront of this initiative.

*(Attendees broke out in groups)*

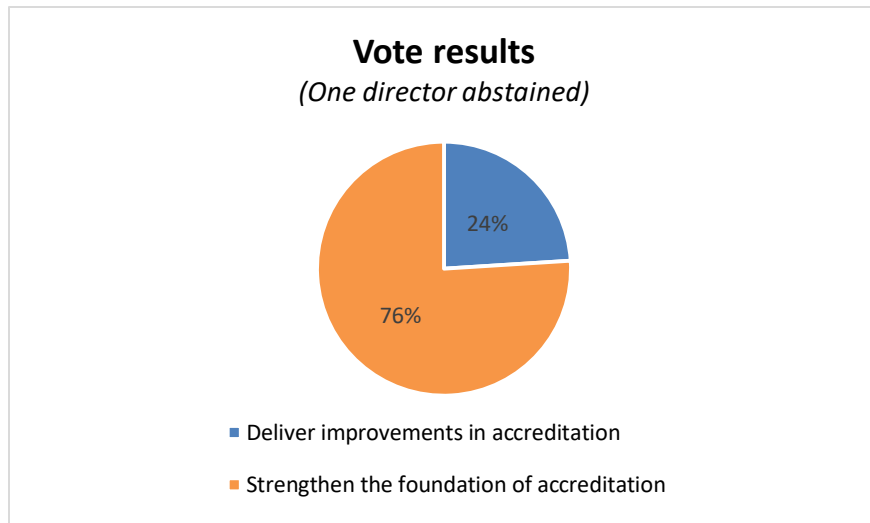
#### *1.2.F. Report back session*

The following comments were received from the individual groups:

- It is premature to make a decision and additional evidence would be needed. Bringing owners, stakeholders, and participants to this process is a significant undertaking and it is not clear why option 2 would be needed. Several group members suggested taking some elements of option 1 and folding it into option 2.
- The sustainability of the current accreditation process is questioned. Choosing option 2 does not necessarily mean the system will be drastically change; it means a closer look will be taken. Several individuals expressed the need for additional information before making a decision. Consultation with regulators and stakeholders will be required. Perhaps this project could be done in smaller pieces, but concerns was expressed on how it would fit with other pieces of the licensure process.
- The fairness issue needs to be tackled. The first option might not solve the issue and the second one might turn out to be a can of worms.
- While they liked both options, this group leaned toward the second one. Concerns were expressed that three years to achieve this project was overly optimistic and that elements of option 1 should be kept so that progress is made while option 2 is also being pursued.
- There is a lack of information on whether the Deans' concerns will be addressed as part of the ongoing work (and option 1) or if option 2 is needed. The existing system could still be improved while work is done under option 2. Could the assessment of non-CEAB credentials be included in this initiative? More data would be needed to increase understanding of both options.

- Option 2 is the best solution. Before clarifying the purpose of accreditation, the project should start with defining the academic requirement for licensure. Then, mechanisms for applicants to meet requirement for licensure (including accreditation) could be pursued, followed by the clarification of the purpose accreditation. Finally, accreditation along with other mechanisms of the licensure process should be benchmarked against other practices and modified accordingly.

Attendees were asked to select one of the two priorities as presented and final results were as follows:



## 2. Foster trust and pride priority

### 2.A. What is the issue?

There is little marketing data about engineers, students, graduates, and EITs. The public has moderate familiarity with engineers and the national data on public perception of engineers is outdated. A 2016 study undertaken by Engineers Canada on public perception of engineering and other professions, found that respondents with a greater familiarity with engineers—because they knew an engineer or had worked with engineers in the past—expressed greater levels of trust.

### 2.B. What are we doing?

Approved by the Board in 2020, the sub-strategy on fostering the recognition of the value and contribution of the profession to society and sparking interest in the next generation (Operational imperative 8) will be implemented by end of 2021. The sub-strategy: defined objectives to foster recognition and spark interest; reviewed current efforts and assessed their relevance and effectiveness at achieving the updated objectives; and made recommendations on the new or existing initiatives most likely to be effective at achieving the recommended objectives within available resources.

### *2.C. How will we address the issue?*

This priority proposed to conduct market research, develop national “value of licensure” messaging with regulators, launch a multi-year, multi-million-dollar national marketing campaign, undertake outreach programming in support of engineering graduates and engineers-in-training (EITs) and coordinate with existing regulator collaboration groups (e.g. outreach group, communications officials, 30 by 30 Champions).

### *2.D. What does success look like?*

- Public perceives engineering as a profession with breadth and engineers as trustworthy and vital
- Engineering graduates and engineers-in-training (EITs) understand the value and seek licensure
- Regulators have a common national messaging framework and marketing support tools

### *2.E. Additional resources*

A minimum of \$6M would be required to spend on this national campaign, which includes one additional person for the duration of the project. This cost estimate is based on discussions with the Chartered Professional Accountants Canada (CPA), and Ordre des Ingénieurs (OIQ)’s recent marketing campaign.

### *2.F. Questions/comments from attendees*

The following questions/comments were received from attendees:

- OIQ’s provincial campaign cost \$3.8-3.9M, so the proposed \$6M seems low for a national campaign. Can justification be provided why an additional person would be required? OIQ managed their marketing campaign without hiring additional staff.
  - There is lack of internal capacity to take on additional effort. Engineers Canada permanent staff would handle this project, while the contracted resource would back-fill day-to-day communications work.
- Clarification on the term “moderate familiarity” was sought. It was requested to send attendees the [report](#) in a follow-up email.
- Concerns were expressed that a similar idea had been proposed and turned down by regulators more than a decade ago.
- The campaign should focus on the regulatory side of the profession and how engineers have a legal and ethical obligation to protect the public.
- Consideration could be given to ask regulators for a one-time additional sum to fund the campaign, a similar path OIQ took for their marketing campaign.
- It is not clear how Engineers Canada can prevent brand duplication with provincial and territorial regulators and confusion among the public on who is the regulatory body in their jurisdictions.
- If this priority is selected, Engineers Canada would work with regulators and minimize overlaps.
- Professional Engineers Ontario (PEO) considered a similar information campaign but ultimately decided against due to cost.

- Leveraging existing regulators work to roll this campaign out might be a good path, an approach that was also supported by other participants.

*(Attendees broke out in groups)*

## *2.G. Report back session*

The following comments were received from individual groups:

- It is not clear which problem this priority would solve and how duplication of brands could be avoided. Regulators have the relationship with engineers and employers, and Engineers Canada's role is unclear.
- This topic is relevant but would require consensus among regulators. It also is linked with 30 by 30, relationships with Indigenous peoples, and government relations initiatives. Perhaps providing an overarching framework to coordinate this work and seek efficiencies is what Engineers Canada should be doing. This initiative is relatively expensive but there might be added long-term benefits not highlighted in the presentation. TV ads are not the best way to reach younger generations. Consideration should be given to similar campaigns in other countries and learning from best practices. CPA is an advocacy body and there is a need to ensure that this campaign focuses on the regulatory side of the profession.
- There are concerns about the funding and sustainability of the campaign and if it could be successful in pursuing two different goals: fostering public trust and attracting new candidates. OIQ only focussed on fostering public trust, the message took a long time to develop and yet it was still difficult to communicate to the public.
- The \$6M budget is possibly too low and it is not clear why an additional person would be needed, especially in light of OIQ's recent experience. Additional clarification on how this proposed priority ties with value for licensure should be provided. To achieve their goal, the CPAs had a 20-year communications plan, so three years does not seem like adequate time to achieve sustainable impact. Reassessing success after two years might be a good idea, especially given the cost of this initiative. Consideration should be given on how this initiative would coordinate and integrate existing efforts of the existing diversity groups within the national marketing campaign. Regulators must confirm that they value the licensure messaging.
- Market research must be conducted early on and outcomes should be identified. Focus groups of engineers and members of the public could be used. Expertise should be hired early. Concerns were expressed if one common message would resonate across the country. CPA took turns with provincial bodies during the year to run ads but did it seamlessly. There is a risk that the profession will be negatively impacted if Engineers Canada does not undertake this priority. Without this marketing campaign, there is a risk that students and young people might be more familiar with, and therefore more likely to choose to join, other professions in five to ten years from now.
- Engineers Canada should learn from regulators' centennial campaigns. A national campaign can be more effective than singular provincial or territorial efforts. Focus should be on how being an engineer is about having a license to practice, not just a title.

### 3. Increase harmonization and consistency priority

#### 3.A. What are we doing?

Engineers Canada is facilitating relationships between regulators (operational imperative 2) and providing tools that foster excellence in practice and regulation (operational imperative 3). By 2021, the competency-based assessment (CBA) system will be implemented, the National Membership Database and the International Institutions and Degrees Database will be improved. Pending Board approval, the CEQB could also be undertaking a feasibility study on alternative methods for academic assessment of non-CEAB applicants.

#### 3.B. What is the issue?

There is a lack of understanding of barriers and success factors that have resulted in regulators adopting similar requirements/tools in the past. There is an absence of clear direction, criteria or focus areas for national harmonization of regulatory practices.

#### 3.C. How will we address the issue?

If selected, this priority will investigate past examples of harmonization and past barriers to harmonization to understand contributing factors. All regulators' council will be asked to sign a national statement of collaboration which will be created and consulted on by the Board. Finally, the CEO Group will be asked to select one area of harmonization for action and implementation.

#### 3.D. What does success look like?

- Regulators benefit from collaboration and resource sharing, leading to continual improvement of regulatory practices
- Individual license holders and applicants benefit from more consistent practices across the country

#### 3.E. Additional resources

While no additional staff is required, approximately \$200K would be necessary to support this initiative to facilitate collaboration with regulator staff to identify barriers and opportunities, for directors to develop and adopt a national statement of collaboration with regulators through face-to-face consultations, and to identify area(s) of collaboration.

*(Attendees broke out in groups)*

#### 3.F. Report back session

The following comments were received from individual groups:

- This is part of the raison d'être of Engineers Canada. It is important even if no additional people would be needed. If this priority is selected, there needs to be clearly defined expectations, success measures, and a plan to involve parties. Smaller regulators have a vested interest in leveraging Engineers Canada's services while larger regulators have the capacity to undertake

their own separate initiatives. The challenge will be to reconcile these different interests. Careful selection of the area(s) will be required to avoid negative repercussions.

- It is important to improve consistency so that it helps engineers and businesses working in multiple jurisdictions. There are hidden costs to current barriers including monetary and reputational.
- This work is at the heart of Engineers Canada's mandate and is already being done by CEQB. The signed statement is a good idea so that the decision is documented, and a rationale is identified in case it is not successful. Councils will not give a blanket approval so areas should be identified first. Securing time on some councils' agendas might be challenging. The assessment of CEAB and non-CEAB applicants could be one of the first potential areas. While it is recognized that some barriers are legislative, there are opportunities for improvements by standardizing administrative processes and procedures.
- Regulators' buy-in will be necessary for this priority to be successful. Rationale on why harmonization is good, roles and responsibilities of regulators vs. Engineers Canada, how it could reduce costs and inefficiencies as well as how this initiative aligns with regulators' provincial governance reviews could be useful information to increase buy-in. An annual survey could be used to identify potential areas.
- There is a need to understand why we have achieved harmonization in some areas and not others. This priority might be more aspirational rather than a concrete initiative that can be delivered by 2024. It would be a good exercise to ask regulators if they want to harmonize, and document why in case they chose not to support it.
- This is part of Engineers Canada's mandate. Collaboration cannot be imposed. While the ideal of a national statement is interesting, buy-in from regulators is imperative. Getting councils' approval is the first step, with open-ended question on potential areas. Accreditation and competency-based assessment are good success stories.

## 4: Accelerate 30 by 30 priority

### 4.A. What are we doing?

Engineers Canada is working on 30 by 30 by implementing the sub-strategy for *Strategic priority 3: Recruitment, retention and professional development of women in the engineering profession*. The sub-strategy focusses on collaboration between stakeholders (i.e., regulators, higher education institutions, and employers), as well as evaluation frameworks that could help improve existing programs. Engineers Canada is also: supporting the development of a guideline for engineering firms (operational imperative 3); completing a report on regulators' best practices in EIT programs; providing licensure assistance and employer awareness programs; and, creating a diversity and inclusion training module available to regulators (operational imperative 9).



#### *4.B. What is the issue?*

The 30 by 30 target will not be achieved if the status quo remains. Some regulators offer licensure assistance, EIT, and employer awareness programs that could be used by others. There is little data (aside from data on gender) on feeder groups and barriers to licensure.

#### *4.C. How will we address the issue?*

Under this priority, research would be conducted on demographics, intentions, and perceptions of those eligible for licensure. Regulators would receive support in implementing inclusive licensure processes and we would promote regulators' best practices in employer awareness programs. For interested regulators, mentor matching software would be provided, and a voluntary 30 by 30 report card and needs assessment would be offered.

#### *4.D. What does success look like?*

- Regulators have information and support that enables them to increase inclusion and number of students proceeding through to their EIT/licensure processes
- Prospective women engineers and engineering students have more inclusive licensure processes and receive information that attracts them to the profession
- Employers have information that enables them to make their workplaces more inclusive

#### *4.E. Additional resources*

Over 3 years, this priority would cost approximately \$900K. Cost includes an expert contractor to conduct research on demographics, barriers, intentions, and perceptions of women who are graduates of engineering programs and/or eligible for licensure, developing mentor matching software and hiring an additional person for the duration of the project to implement research findings, the 30 by 30 report card and needs assessment, as well as coordinate the implementation of the mentor matching software.

*(Attendees broke out in groups)*

#### *4.F. Report back session*

The following comments were received from individual groups:

- This initiative already has a lot of support across the country. Regulators would benefit from having data on which age group to target, where to focus their attention, what is preventing women from joining the profession and how we can retain them successfully. It would also be interesting to share regulators' best practices. The report card could be useful if all regulators' initiatives are merged to create a national, anonymous baseline, and regulators are individually benchmarked to it.
- There are a lot of initiatives already going on in support of 30 by 30 and it is unclear why progress is not happening as fast as hoped. A target is still needed. There is still unacceptable gender behaviour. Engineers Canada could work with regulators to identify and provide training to members. While the issue might be with involving women in STEM during high school, it is not clear what Engineers Canada's role is outside of supporting regulators and coordinating

efforts. Also, it is not clear how 30 by 30 fits within the regulatory context in which regulators operate.

- If the status quo remains, the profession will not reach its 30 by 30 goal. This priority was allocated relatively little time compared to sessions for other priorities. For example, there was not sufficient time in this session for a Q&A. The group wondered what message this gave to participants with respect to the relative level of importance of this priority and if Board members had sufficient opportunity to ask questions about the content of the presentation. There needs to be a close look at factors leading to this gap. There are already mentoring programs, so it might not be the right tool that will lead to the desired impact. COVID-19 will have a negative impact on women's participation in the workforce. It could be beneficial to look at how different cultures promote engineering to girls.
- Mentoring/matching software will be available to both women and men so it might not have the desired impact to increase female representation. Perhaps it would be useful to provide funding in support of existing activities (e.g. HEIs). Engineers Canada is best positioned to be a champion by investing money, encouraging efforts and supporting working groups on the ground. The proposed marketing campaign could be used to encourage women to join the profession.
- It might be useful to look at the activities HEIs are organizing. There needs to be a plan in place to manage the fact that the profession will not attain the 30 by 30 and define how it will be communicated. There is also a need to counter the effect of COVID-19 on the representation of women in the profession.
- Mentoring is the best way to sell the profession to young girls and there needs to be a closer look at why the profession is not on track to reach 30 by 30 and why it is not attractive to women. Engineers Canada should facilitate and coordinate activities as regulators have contact with the target audience for these initiatives.

*(End of day 1)*

## 5: Reach financial sustainability priority

### *5.A. What are we doing?*

While different options for funding Engineers Canada have been proposed, there is still a lack of national consensus on our funding model.

### *5.B. What is the issue?*

Approximately 70 per cent of revenues derive from sponsorship payments, shared with participating regulators. Some regulators are concerned that the growth of this revenue source diminishes their influence and that the model is broken.

### *5.C. How will we address the issue?*

It is proposed that an analysis be conducted and a report written to identify alternative funding sources and their potential magnitude, to detail the required investments for those sources, to forecast revenue generation from each stream into the future and to propose a new/revised funding model for decision.

### *5.D. What does success look like?*

- Regulators have greater certainty on the future financial demands placed on their organizations.
- Engineers Canada has sustainable and consistent funding, allowing efficient and predictable multi-year planning and execution.

### *5.E. Additional resources*

Over 3 years, approximately \$300K will be needed to hire an expert to provide recommendations and hold face-to-face consultations across the country.

### *5.F. Questions/comments from attendees*

The following comments were received from attendees:

- Does the current model lack sustainability or is the issue that regulators want more control over the organization?
- Sustainability of revenues is not at risk; it is more about reaching regulators' consensus on the funding model.
- Recommendations from the Funding Task Force were approved by the Board in February 2020 and it will take some time to implement them. While there is agreement that there is still a lack of consensus on this issue, it might be good to look at it again and deal with the issue directly. The Board workshop was held before the Task Force recommendations were approved so it is unclear whether this issue is still relevant.
- This is a political issue and it is unclear how hiring expertise could fix this situation.
- The intention of using an expert is to recommend if Engineers Canada has the right activities.
- While there is a political component associated with the funding issue, it is mostly a risk Engineers Canada needs to manage if there is no diversification in revenues.
- The Task Force's recommendations have just been approved and there needs to be time to let things settle down. The new funding model was approved almost unanimously. It will likely take two years before it is operationalized. It is most prudent to wait to the 2025-2027 strategic plan before considering changing the funding model. It is not clear how a consultant could help resolve this issue.
- What is the risk of doing nothing?
- If nothing major happens then there should not be any considerable risk. There should be a contingency plan in place in case Ontario takes its affinity money. Affinity revenues are expected to decrease slightly over the next three to four years, but there is no crisis for now, if Ontario keeps its same stance.
- If Ontario could decide to remove itself from the affinity program permanently, it would remove the need to confirm this decision on an annual basis.

*(Attendees broke out in groups)*

#### *5.G. Report back session*

The following comments were received from individual groups:

- It would be important to understand why some regulators are not happy with the model and it could be useful to get the perspective of an outsider. Politics need to be considered separately. The Board needs to adopt a contingency plan and manage risks associated with Ontario potentially choosing to take the money, resulting in affinity revenues decrease for Engineers Canada.
- There is value in retaining expertise, but it is not clear what the issue is. Additional information would be required to make an informed decision. It seems like a risk for the FAR Committee to manage rather than a strategic priority. This item should be taken off the list of potential strategic priorities.
- There needs to be clarification on the issue that should be fixed and if it is urgent for the Board to undertake. The organization is currently healthy from a financial perspective. A comprehensive review is a good place to start, particularly in light of the COVID-19 situation. It could also help highlight the financial impact of a decreasing number of licensees on the finances of the organization and proactively start preparing.
- Time is needed to settle down after the recent decisions before making new changes. While Engineers Canada can quietly look at other revenue streams to prepare for next steps, and monitor risks associated with Ontario's situation, this issue could be addressed in next strategic plan.
- Concerns were raised on spending \$300K to reveal what is already known as this is a political and structure issue. The uncertainty related to Ontario should be managed as a risk, not as a strategic priority.
- It is worth looking at again, as the previous attempt did not provide an answer that reached consensus. It is likely best to adopt a contingency plan and be prepared in advance in case Ontario avails itself of the affinity revenues. This issue is more important than coming up with a perfect funding model. The contractor could also explore other fee-for-service models.

## 6: Adapt to emerging technologies priority

### *6.A. What are we doing?*

The officials groups are currently working toward shared understanding on entrepreneurship (operational imperative 2). A new sub-strategy on regulatory research was approved three months ago and it includes the first research report on emerging disciplines (operational imperative 6). While CEQB had worked on developing website content for entrepreneurs, they discontinued the work due to lack of regulators support.

#### 6.B. What is the issue?

Technology advances faster than legislative change. Regulators can anticipate technology trends but are limited at predicting pace and can overestimate initial impacts while underestimating long-term effects. Engineers may not understand/consider long-term professional and ethical obligations and impacts.

#### 6.C. How will we address the issue?

It is proposed to identify new and existing technologies that require the application of engineering principles and will have an impact on public through the emerging discipline report. In addition, the CEQB could provide guidance to individual engineers on responsibility and ethical obligations, if requested by the regulators. Given that the work is underway under *Operational imperative 6: Sub-strategy on actively monitoring, researching, and advising on changes and advances that impact the Canadian regulatory environment and the engineering profession*, it was proposed not to include it as a strategic priority, to continue the work as an operational activity, and to re-evaluate once the program has been operational for a period of time.

#### 6.D. What does success look like?

- Regulators receive information and documents that help them adapt their admission, enforcement, and practice-related processes

#### 6.E. Additional resources

No additional resources are required as the work will be undertaken as per the *Operational imperative 6: Sub-strategy on actively monitoring, researching, and advising on changes and advances that impact the Canadian regulatory environment and the engineering profession* as approved by the Board in May 2020.

#### 6.F. Questions/comments from attendees

The following comments were received from attendees:

- To be in alignment with the vision of advancing the profession, the Board should adopt this as a strategic priority. Further work could be done when lobbying the government, especially on cyber security.
- Engineers Canada has paused its meetings with the federal government as the government is focussed on dealing with the COVID-19 situation. Meetings will resume once the government resumes its normal activities. In the interim, Engineers Canada is responding to the government's requests as they occur.
- This is a very important topic that should be a strategic priority. While Engineers Canada is not a regulator, it can be a leader on this file. More resources should be allocated to this topic as this is a threat to self-regulation.
- This is an example where Engineers Canada could provide leadership from behind.
- Emerging technologies is an issue tied with entrepreneurship.
- While CEQB worked on this file, it was not possible to generate consensus among regulators and work on entrepreneurship had to be discontinued.

- This is an important topic that needs public visibility. Perhaps the strategic plan is not the right approach, but it is critical that Engineers Canada communicates it is working on this topic.
- This work will be done under the current operational imperative, and strategic priorities are meant to be areas of top focus. Perhaps it could be made public without going in the Strategic plan.

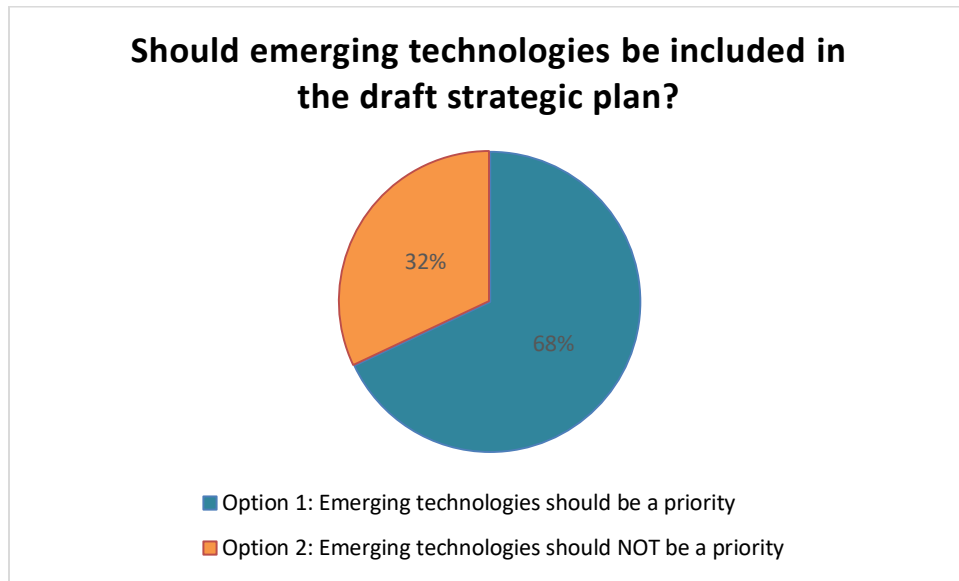
*(Attendees broke out in groups)*

#### *6.G. Report back session*

The following comments were received from individual groups:

- Foster trust and pride priority is tied with this one along with messaging on the value of an engineering license. While Engineers Canada can prevent duplication of work among regulators, it is limited in what it can accomplish, given that this work falls outside the purview of Engineers Canada.
- The issue should be a strategic priority. It is a great opportunity for regulators to share best practices and recruit individuals to the profession. Putting it in the strategic plan demonstrates that Engineers Canada is taking a stance on this issue. There is a need to continue liaising with government and industries as well as to push for demand-side legislation in these areas. While putting it as a strategic priority would signal a high level of priority, it would still be undertaken as an operational priority.
- The sub-strategy was approved by the Board in May so time should be taken to learn from it and let the process inform next steps. This should not be a priority in the Strategic plan. Regulators must come together on this issue and be proactive. Work should keep going.
- This is an important topic as smaller regulators do not have the capacity to undertake this work. Even if it does not end up in the Strategic plan, the work needs to be visible. This is more a positioning issue rather than doing the work as it falls under regulators' authority.

Attendees were asked to select whether or not emerging technologies should be included in the draft Strategic plan for consultation and final results were as follows:



A decision was made to include it in the draft strategic plan. However, some attendees expressed confusion after the vote, saying that they thought they were being asked to vote on emerging disciplines to be a priority for the Board’s consideration when voting on all potential priorities, and not for immediate addition as a strategic priority in the draft strategic plan.

## 7: Continue commitment to excellence priority

Engineers Canada is continually seeking to improve its processes and while this is an operational activity, the Engineers Canada Board is asked to consider putting it in the strategic plan to demonstrate its commitment to improved service delivery and sustain operational excellence for the benefits of regulators, staff and stakeholders

### 7.A. What are we doing?

Engineers Canada is committed to continual improvement and has received gold certification from Excellence Canada.

### 7.B. What is the issue?

Engineers Canada is maturing and improving delivery of products and services for regulators and stakeholders.

#### *7.C. How will we address the issue?*

Engineers Canada will achieve Platinum level certification from Excellence Canada by continuing to improve, conducting semi-annual self assessments, developing a submission to Excellence Canada, undergoing an audit, and enhancing practices according to results.

#### *7.D. What does success look like?*

- Regulators, higher education institutions (HEIs), and the engineering community benefit from effective delivery of products and services
- Staff benefit from increased engagement and retention, working in motivated teams with improved health and well-being
- Engineers Canada benefits from sustainment of a high level of performance

#### *7.E. Additional resources*

No additional resources are required for this priority. It is proposed to add it to the strategic plan to demonstrate ongoing commitment to regulators, staff and stakeholders. If they choose to add this as a priority, the Board will frequently monitor progress.

#### *7.F. Questions/comments from attendees*

The following comments were received from attendees:

- This is an important signal and it should be in the strategic plan.
- It is an important commitment to the profession and the Board should regularly monitor the situation.

## **Funding potential strategic priorities**

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As per the net asset structure (approved by the Board in February 2020), internally restricted reserve funds exist to ensure stability, mitigate financial risks and fund strategic priorities. Internally restricted reserve funds include a \$2M strategic priorities reserve. If those reserves are used, they must be replenished. Engineers Canada also has unrestricted reserves. By end of 2020, it is estimated that these will total \$7.9M, and by the end of 2021, unrestricted reserves are projected to increase to \$9.8M (assuming PEO does not avail itself of the affinity revenues). The total amount of unrestricted reserves can be lowered through reductions of the per capita assessment fee, through spending on strategic priorities, or both.



A proposed rough estimate was put together by staff and will be refined later, based on feedback from this session and additional planning. Additional cost estimate includes new FTEs for 2022-2024 only.

Title	FTEs	2022	2023	2024
Deliver improvements in accreditation	1	\$300,000	\$400,000	\$300,000
Strengthen foundation of accreditation	1	\$600,000	\$700,000	\$700,000
Foster trust and pride	1	\$580,000	\$2,710,000	\$2,710,000
Achieve harmonization and consistency	0	\$0	\$150,000	\$50,000
Accelerate 30 by 30	1	\$400,000	\$250,000	\$250,000
Reach financial sustainability	0	\$50,000	\$200,000	\$50,000
Adapt to emerging technologies	0	\$0	\$0	\$0
Continue commitment to excellence	0	\$0	\$0	\$0
<b>TOTAL</b>	<b>4</b>	<b>\$1.93 M</b>	<b>\$4.41 M</b>	<b>\$4.06 M</b>

#### *Questions/comments from attendees*

The following comments were received from attendees:

- Can the Board afford all priorities?
- The budget for each priority is just nominal and they will be refined as part of the regular budget process. As a not-for-profit organization, it is best if Engineers Canada spends unrestricted reserves. By end of 2020, they will be at \$7.9M and by end of 2021 at \$9.8M. Assuming PEO does not avail itself of the affinity revenues, there should be enough money to afford many proposed priorities. From a capacity perspective, undertaking all priorities would likely be too much for the organization. It would be best if the Board would choose a maximum of three priorities.

*(Attendees broke out in groups)*

## Reaching consensus

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#### *Report back session*

The following comments were received from individual groups:

- They could not reach consensus on their top priorities. It is best to decide based on issues rather than costs. A decision needs to be made on what the Board wants to promote as strategic priorities vs. what is being done operationally.
- Concerns were expressed that there is a likelihood that regulators will cut the foster trust and pride priority from the list. It would be easier to remove one priority after receiving consultation feedback rather than adding a new one afterwards. It was suggested to select four priorities for consultation rather than three.

- Another group struggled to decide whether some priorities that need to be visible should be in the strategic plan or not. Harmonization does not need to be a strategic priority, but if it is not, external parties will not know that it is important to this organization. On the foster pride and trust priority, members should decide if they are willing to commit funding to this initiative and if they want Engineers Canada to be involved.
- Accreditation is the core business of Engineers Canada. The financial sustainability priority should not be displayed externally to preserve Engineers Canada’s reputation and be managed by FAR as a risk. Regulator consultation will be needed to shed light on their needs and expectations. Harmonization is also core to the mandate, but Engineers Canada has little control on the success of this priority.
- Another group reached consensus on the following priorities: accreditation, foster trust and pride, and 30 by 30. These three also have synergies that should be explored.
- While it is important to maintain visibility around the 30 by 30 initiative, it is assumed by some that the target will not be reached. Efforts should be invested to work with regulators to have them connect with provincial and territorial education systems and build the pipeline of potential licensees beyond 2030. It should be noted that, if the goal is 30 by 30, 2022-2024 will be too late to focus on provincial and territorial school systems. No consensus was reached on ranking priorities.

#### VOTE RESULTS:

- 1<sup>st</sup>: Accreditation
- 2<sup>nd</sup>: Foster trust and pride
- 3<sup>rd</sup>: Achieve harmonization and consistency
- 4<sup>th</sup> Accelerate 30 by 30
- 5<sup>th</sup> Reach financial sustainability

Since there is a possibility that regulators will not support the foster trust and pride priority, a decision was made to submit the top four priorities for consultation, along with adapt to emerging technologies and continue commitment to excellence.

The final list for consultation will be as follows:

- Strengthen the foundation of accreditation
- Foster trust and pride
- Achieve harmonization and consistency
- Accelerate 30 by 30
- Adapt to emerging technologies
- Continue commitment to excellence

## Next steps

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Workshop input will be consolidated in a draft strategic plan, which the Strategic Plan Task Force will review and approve before it is shared with the Engineers Canada Board, the CEOs and the regulator presidents at the October Board meeting. Following this session, regulators will be consulted on content, either individually or in groups, in-person or virtually according to their preferences. The CEAB, CEQB, and EDC will also be individually consulted on the content of the draft strategic plan this fall. Consultation feedback will be consolidated and reviewed by the Strategic Plan Task force and will inform the final strategic plan that will be submitted for Board approval in February 2021 and for members' approval in May 2021.

## Appendix 1: Workshop attendees

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The following section presents all workshop attendees along with their organization:

- **Kathy Baig**, Engineers Canada Board Director, Québec and President, Ordre des ingénieurs du Québec
- **Maxime Belletête**, Engineers Canada Board Director, Québec
- **Christian Bellini**, Engineers Canada Board Director, Ontario
- **Victor Benz**, Engineers Canada Director, Alberta
- **Jean Boudreau**, President, Engineers Canada Board, New Brunswick
- **Jeff Card**, Engineers Canada Board Director, Newfoundland and Labrador (*First day only*)
- **Danny Chui**, President-Elect, Engineers Canada Board Director, Ontario
- **Bob Dony**, Chair, Canadian Engineering Accreditation Board
- **Justin Dunn**, Engineers Canada Board Director, Prince Edward Island
- **Nancy Hill**, Engineers Canada Board Director, Ontario
- **Frank George**, Vice-Chair, Canadian Engineering Qualifications Board
- **Jeff Holm**, Engineers Canada Board Director, British Columbia
- **Sudhir Jha**, Engineers Canada Board Director, Northwest Territories
- **Tim Joseph**, Engineers Canada Director, Alberta
- **Kimberley King**, CEO Group Advisor to the Board, Executive Director/Director of Registration, Engineers Yukon
- **Carole Lamothe**, Engineers Canada Board Director, Québec
- **David Lynch**, Past President, Engineers Canada Director, Alberta
- **Dawn Nedohin-Macek**, Engineers Canada Board Director, Manitoba
- **Kelly Reid**, Engineers Canada Board Director, Ontario
- **Changiz Sadr**, Engineers Canada Board Director, Ontario
- **Jane Tink**, Engineers Canada Board Director, Alberta
- **Richard Trimble**, Engineers Canada Board Director, Yukon
- **Nicolas Turgeon**, Engineers Canada Board Director, Québec
- **Steve Vieweg**, Finance, Audit and Risk Committee member
- **Michael Wrinch**, Engineers Canada Board Director, British Columbia
- **Chris Zinck**, Engineers Canada Board Director, Nova Scotia

The following Engineers Canada staff were also present:

- **Brent Gibson**, Manager, Communications, Engineers Canada
- **Gerard McDonald**, Chief Executive Officer, Engineers Canada
- **Mélanie Ouellette**, Manager, Strategic and Operational Planning, Engineers Canada
- **Stephanie Price**, Executive Vice President, Regulatory Affairs, Engineers Canada
- **Jeanette Southwood**, Vice President, Corporate Affairs and Strategic Partnerships, Engineers Canada
- **Evelyn Spence**, Legal Counsel, Engineers Canada
- **Beryl Strawczynski**, Manager, Regulatory Research and International Mobility, Engineers Canada
- **Heidi Theelen**, Manager, Organizational Excellence, Engineers Canada