AGENDA

229th ENGINEERS CANADA BOARD MEETING

October 10, 2024 | 8:30am –5:00pm ET

Hybrid delivery: Sheraton Ottawa Hotel, Ottawa, ON | Zoom

Reference materials: Board Policy Manual | Bylaw | Corporate Risk Profile | Strategic Plan

1.	**Opening**
	1.1 Call to order and approval of agenda – M. Wrinch (pages 1-5) *THAT the agenda be approved and the President be authorized to modify the order of discussion.*
	1.2 Declaration of conflict of interest (pages 6-8)
	1.3 Review of previous Board meeting – M. Wrinch (pages 9-10) a) Action item list b) Board attendance list
2.	**Executive reports**
	2.1 President's report – M. Wrinch (verbal)
	2.2 CEO update – P. Rizcallah (verbal)
	2.3 2022-2024 Strategic Plan reporting – P. Rizcallah (pages 11-25) a) Q2 Interim Strategic Performance Report to the Board (pages 11-25) b) SP 1.3 Support regulation of emerging areas (slides)
	2.4 CEO Group report – P. Mann (slides)
	2.5 Presidents Group report – S. Sternbergh (slides)
3.	**Consent agenda**
	Board members may request that an item be removed from the consent agenda for discussion. *THAT consent agenda items 3.1 to 3.6 be approved.*
	3.1 Approval of minutes (pages 26-40) *a) THAT the minutes of the May 17, 2024 Board meeting be approved.* *b) THAT the minutes of the May 24, 2024 Board meeting be approved.* *c) THAT the minutes of the June 17, 2024 Board meeting be approved.*
	3.2 Approval of committee work plans (pages 41-50) *a) THAT the Board approve the 2024-2025 Finance, Audit, and Risk Committee work plan.* *b) THAT the Board approve the 2024-2025 Governance Committee work plan.* *c) THAT the Board approve the 2024-2025 Human Resources Committee work plan.*
	3.3 Canadian Engineering Accreditation Board (CEAB) and Canadian Engineering Qualifications Board (CEQB) volunteer recruitment and succession plans (pages 51-56) *a) THAT the Board approve the 2025-2026 CEAB volunteer recruitment and succession plan.* *b) THAT the Board approve the 2025-2026 CEQB volunteer recruitment and succession plan.*
	3.4 National Position Statements (pages 57-93) *THAT the following updated National Position Statement be approved:* *a) Artificial Intelligence Engineering Technology in Autonomous and Connected Vehicles* *b) Regulation of Costal, Ocean and Related Subsurface Engineering* *c) The Role of Engineers in Protecting and Advancing the Public Interest (Demand-Side Legislation)* *d) Labour Mobility in Canada (National and International Labour Mobility)*
	3.5 Legislative compliance certificate (pages 94-101)
	3.6 Annual advocacy report (pages 102-106)
4.	**Board business/required decisions**
	4.1 FAR Committee update – M. Rose (slides)

	4.2 Draft budget (presented as information for discussion) – M. Rose (pages 107-135)
	4.3 Governance Committee update – S. Larivière-Mantha (slides)
	4.4 Governance review task force terms of reference – S. Larivière-Mantha (slides and pages 136-140) *THAT the Board, on recommendation of the Governance Committee, approve the governance review task force terms of reference.*
	4.5 Board policy updates – S. Larivière-Mantha (pages 141-148) *THAT the Board, on recommendation of the Governance Committee:* *a) approve revised Board policy 7.7, Investments* b) *rescind the following Board policies:* *i. 6.14, Collaboration Task Force terms of reference* *ii. 6.15, Strategic Planning Task Force terms of reference*
	4.6 HR Committee update – N. Hill (slides)
	4.7 CEAB – J. Pieper (slides and pages 149-188) • Draft work plan • Accreditation system interventions in support of 30 by 30
	4.8 CEQB – F. Collins (slides and pages 189-192) • Draft work plan
	4.9 CEQB products – F. Collins (pages 193-248) *THAT the Board, on recommendation of the CEQB, approve the following products:* *a) Revised Guideline on assuming responsibility for the work of engineers-in-training (pages 193-212)* *b) Revised Public guideline on good character (pages 213-248)* *c) New Regulators Guideline on fitness to practice (circulated separately)*
	4.10 Board's 30 by 30 Champion – T. Joseph (slides)
5	**Next meetings**
	Board meetings:
	• December 9, 2024 (virtual) • February 28, 2025 (Ottawa, ON) • April 2, 2025 (virtual) • May 23, 2025 (Vancouver, BC) • June 16, 2025 (TBC)
	2024-2025 committee and task force meetings:
	• FAR Committee: August 12, 2024 (virtual) • FAR Committee: August 22, 2024 (virtual) • HR Committee: September 5, 2024 (virtual) • Governance Committee: September 18, 2024 (virtual) • FAR Committee: October 22, 2024 (virtual) • Governance Committee: November 13, 2024 (virtual) • HR Committee: November 21, 2024 (virtual) • HR Committee: December 12, 2024 (virtual) • FAR Committee: December 13, 2024 (virtual) • FAR Committee: February 20, 2025 (virtual) • HR Committee: February 28, 2025 (Ottawa) • FAR Committee: March 6, 2025 (virtual) • Governance Committee: March 13, 2025 (virtual) • HR Committee: April 2, 2025 (virtual) • FAR Committee: May 9, 2025 (virtual) • All 2024-2025 committees and task forces: June 16, 2025 (TBC)
6	**In-camera sessions**
	6.1 Board Directors and Direct Reports *THAT the meeting move in-camera and be closed to the public at the recommendation of the Board. The attendees at the in-camera session shall include Board Directors, Engineers Canada CEO, the chairs of the CEAB and CEQB, and the Secretary.*

	6.2 Board Directors and CEO *THAT the meeting move in-camera and be closed to the public at the recommendation of the Board. The attendees at the in-camera session shall include Board Directors and the Engineers Canada CEO.*
	6.3 Board Directors only *THAT the meeting move in-camera and be closed to the public at the recommendation of the Board. The attendees at the in-camera session shall include Board Directors.* • Meeting evaluation – roundtable discussion.
7	**Closing** (motion not required if all business has been completed)

Board support document

Meeting norms

Virtual participation:

- Board members and Direct Reports are asked to "show up" to the meeting a few minutes early to test their audio and video connections and are encouraged to reach out to Boardsupport@engineerscanada.ca in advance if they anticipate any connection or technological issues.
- To increase meeting engagement and participation, Board members and Direct Reports are requested to turn on their cameras during the meeting, when possible. All participants will have control over their ability to mute their line upon joining the meeting. Participants are asked to self-mute when they are not speaking to minimize background noise. If a participant is muted by an organizer, this is because there was feedback on the line.
- Participants are asked to use the self-mute function and turn off their cameras, instead of leaving the meeting during all breaks. This will help minimize any technical issues and disruption upon re-connection.
- The "Raise hand" function is only to be used if a participant wishes to ask questions and/or make comments after presentations or during debate. Depending on the Zoom version, participants may find the 'Raise hand' button under "Reactions" or "Participants". Participants should reach out in "Chat" if they are not able to locate it.
- If a participant wishes to speak and have not been called upon or are unable to use the "Raise hand" function, they should say their name with an un-muted microphone and obtain permission from the Chair before speaking.
- The "Chat" function will only be monitored by the offsite AV personnel in respect of technical difficulties. Non-technical questions asked through the "Chat" function will not be answered during the meeting.

To conduct the meeting with reasonable time and fairness:

1. For all motions, the meeting chair will call for abstentions and negative votes from the Directors. Directors who do not state a negative vote or an abstention will be considered in favour of the motion. If, for whatever reason, Directors are unable to speak during the motion and feel their opinion was not heard, they should raise their hand, or reach out in "Chat" for technical support.
2. Wordsmithing of motion texts should be avoided as much as possible so that the meeting can stay on track. If the proposed motion and related decision is understood, the Board should move to a debate and discussion on the proposal and should not focus attention on perfecting the text.
3. Participants are asked to speak for a maximum of two (2) minutes at a time (a timer will be projected on the screen) and will be limited to two (2) chances to speak on any one issue or motion. An opportunity to speak a second time will be granted only after everyone has had a chance to speak. The meeting chair reserves the right to allow additional chances to speak, as necessary.
4. Restating or reiterating the same point is strongly discouraged.

5. In the virtual environment where meeting participants are not able to demonstrate their agreement by nodding, they are encouraged to use the "Reaction" buttons to identify their informal support of others' statements. A safe and respectful environment is encouraged at all times.
6. At the opening of the meeting, the meeting chair will announce which individual will be monitoring the show of hands. The chair will try to ensure that anyone with a raised hand has their point addressed.

Board support document

Conflicts of interest

Board members and members of Board committees have an ongoing obligation to identify and disclose actual, reasonably perceived, and potential conflicts of interest. These obligations are set out in case law and are also codified in statute, under the *Canada Not-for-profit Corporations Act* ("CNCA").

While not expressly defined in the CNCA, a conflict of interest is understood to comprise any situation where:

a) an individual's personal interests, or
b) those of a close friend, family member, business associate, corporation, or partnership in which the individual holds a significant interest, or a person to whom the individual owes an obligation, could influence their decisions and impair their ability to:
    i. act in the best interests of the corporation, or
    ii. represent the corporation fairly, impartially, and without bias.

Conflicts of interest exist if a Director's decision could be, or could appear to be, influenced. *It is not necessary that influence actually takes place.* In cases where Directors are in an actual, perceived, or potential conflict of interest, they are required to disclose the conflicting interest to the Board[1] or, in the case where membership approval is sought, to the members,[2] as well as abstain from voting.

Handling conflicts of interest

Directors may use the following checklist when faced with a situation in which they think they might have an actual, perceived, or potential conflict of interest.

Step 1 - Identify the matter or issue being considered and the potential conflicting situation in which you are involved.

E.g. There is an item before the Board requiring discussion and a decision that involves potential litigation between Engineers Canada and the Engineering Regulator with whom you are licensed. Whether or not you are in a conflict of interest is not automatic—it will depend upon the personal circumstances of each Director.

Step 2 – Assess whether a conflict of interest exists or may exist.

In assessing whether you have an actual, reasonably perceived or potential conflict of interest, it may be helpful to ask yourself the following questions:

[1] Section 141(1) and (2) of the CNCA
[2] Section 141(9)(a) of the CNCA

- Would I, or anyone associated with me benefit from, or be detrimentally affected by my proposed decision or action?
- Could there be benefits for me in the future that could cast doubt on my objectivity?
- Do I have a current or previous personal, professional, or financial relationship or association of any significance with an interested party?
- Would my reputation or that of a relative, friend, or associate stand to be enhanced or damaged because of the proposed decision or action?
- Do I or a relative, friend, or associate stand to gain or lose financially in some way?
- Do I hold any personal or professional views or biases that may lead others to reasonably conclude that I am not an appropriate person to deal with the matter?
- Have I made any promises or commitments in relation to the matter?
- Have I received a benefit or hospitality from someone who stands to gain or lose from my proposed decision or action?
- Am I a member of an association, club, or professional organization, or do I have particular ties and affiliations with organizations or individuals who stand to gain or lose by my proposed decision or action?
- Could this situation have an influence on any future employment opportunities outside my current duties?
- Could there be any other benefits or factors that could cast doubts on my objectivity?
- Am I confident of my ability to act impartially in the best interests of Engineers Canada?

What perceptions could others have?

- What assessment would a fair-minded member of the public make of the circumstances?
- Could my involvement on this matter cast doubt on my integrity or on Engineers Canada's integrity?
- If I saw someone else doing this, would I suspect that they have a conflict of interest?
- If I did participate in this action or decision, would I be happy if my colleagues and the public became aware of my involvement?
- How would I feel if my actions were highlighted in the media?

Step 3 – Is the duty to disclose triggered?

If, in assessing the situation, you determine that you are in an actual, potential, or reasonably perceived conflict of interest, your duty to disclose is triggered. Directors disclosing a conflict must make the disclosure at the meeting at which the proposed contract or transaction is first considered and should request to have the disclosure entered into the minutes of the meeting.[3]

Disclosure must be made of the nature and extent of the interest that you have in the contract or transaction (or proposed contract or transaction).[4] The limited case law dealing with the nature and scope of the disclosure required by a conflicted Director suggests that disclosure must make the

3 Section 141(1) of the CNCA
4 Section 141(1) and 141(9)(b) of the CNCA

other Directors fully informed of the real state of affairs (e.g. what your interest is and the extent of the interest).[5] It will rarely suffice to simply declare that you have a conflict of interest.

Step 4 – What next?

Subject to limited exceptions, the general rule is that a conflicted Director cannot vote on the approval of a proposed contract or transaction, even where their interest is adequately disclosed.[6] Further, as a best practice, they should leave the room and not participate in the salient part of the Board meeting.

5 *Gray v. New Augarita Porcupine Mines Ltd.,* 1952 CarswellOnt 412 (Jud. Com. of Privy Coun.)
6 Section 141(5) of the CNCA

Engineers Canada Board of Directors action log

	Meeting date	Action	Responsible	Due date	Update
1.	May 24, 2024	That the CEAB pre-circulate to the Board for consideration at its June meeting a report of urgent maintenance-related policy work that the CEAB considers critical for the integrity of the accreditation system.	Staff	June 18, 2024	Complete
2.	May 24, 2024	Engineers Canada's Public Affairs Advisory Committee will be asked to consider a statement around policies and support plans for international students, as requested by the CFES.	Staff	None established	In progress - PAAC have several NPSs to draft and update according to our existing workplan, which runs through May 2025. PAAC will consider whether an NPS on policies and support plans for international students is appropriate for the 2025-2026 workplan.

Last updated: September 26, 2024	Andrew Lockwood	Arjan Arenja	Anjum Mullick	Jean-Luc Martel	Jitendra Paliwal	Lisa Doig	Sophie Larivière-Mantha	Christian Bellini	Tim Kirkby	Menelika Mekomba	Christopher Dixon	Crysta Cumming	Ann English	Nancy Hill	Sudhir Jha	Tim Joseph	Elliott Coles	Marlo Rose	Darlene Spracklin-Reid	Marisa Sterling	Nicolas Turgeon	John Van der Put	Mike Wrinch
Board Meetings																							
June 17, Hybrid (Osoyoos, BC)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4 Seasons training																							
Ongoing access		✓						✓				✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
CEAB																							
September 13-14, Moncton, NB						×							✓					✓				✓	
CEQB																							
September 15-16, Hybrid, Moncton, NB									✓						✓							✓	
FAR Committee																							
June 17, Hybrid (Osoyoos, BC)			✓		✓			✓		✓								✓			✓		
August 12, Virtual			✓		✓			✓		✓								✓			×		
August 22, Virtual			✓		✓			✓		✓								✓			✓		
Governance Committee																							
June 17, Hybrid (Osoyoos, BC)	✓			✓			✓				✓	✓		✓			✓						
August 27, Virtual	✓			✓			✓				×	×		✓			✓					✓	
September 18, Virtual	✓			✓			✓				✓	×		✓			✓					✓	
HR Committee																							
May 25, Hybrid (Winnipeg, MB)		✓											✓	✓								✓	✓
June 17, Hybrid (Osoyoos, BC)		✓											✓	✓					✓	✓		✓	✓
September 5, Virtual		✓											✓	✓					✓	✓		✓	✓

Attendance Required	✓
Attendance Not Required / Completed	✓
Attendance for Partial Meeting / In progress	✓
Attendance required, regrets	×
Not applicable	-

BRIEFING NOTE: For information

Q2 Interim Strategic Performance Report to the Board	2.3
Purpose:	To provide an interim report on progress against the 2022-2024 Strategic Plan
Link to the Strategic Plan / Purposes:	Board responsibility: Provides ongoing strategic direction for Engineers Canada by monitoring implementation of the strategic plan
Link to the Corporate Risk Profile:	Decreased confidence in the governance functions (Board risk)
Prepared by:	Mélanie Ouellette, Manager, Strategic and Operational Planning
Presented by:	Philip Rizcallah, Chief Executive Officer

Background

- The 2022-2024 Strategic Plan and its objectives and outcomes resulted from extensive consultation with Regulators and was approved by the Members in May 2021.
- The new strategic reporting template was presented to and endorsed by the Governance Committee in March 2021.
- The performance measures were approved by the Board at its June 2021 strategic workshop.
- This interim strategic performance report covers Q2 of 2024 (April 1 – June 30, 2024).
- The report focuses on the achievement of objectives set in the 2022-2024 Strategic Plan.
- An evaluation of the 2022-2024 strategic plan will be performed after its completion and presented to the Board in May 2025.

Status update

- All Strategic Priorities are on target to be completed in 2024.

Next steps

- The Board will receive a quarterly update with the Q3 update in December 2024.

Appendix

- **Appendix 1:** 2024-Q2 Interim strategic performance report

Interim Strategic Performance Report: Q2-2024

This strategic reporting template was reviewed and endorsed by the Governance Committee in 2021. Indicators were approved at the Board Strategic Workshop in June 2021. Performance is benchmarked against the 2022-2024 Strategic Plan that came into effect on January 1, 2022.

Legend

	Status of strategic priority
Overall activities on track to be completed by 2024	
Overall activities experiencing some delays, no foreseen impact on completing the strategic priority by 2024	
Overall activities experiencing some delays which could impact the ability to complete the strategic priority by 2024	

Reporting Information Sources

The information included in this report has been obtained from the following sources:

Section	Source
Planned activities (as set in June 2021)	Copied from Board June 2021 strategic workshop presentation
2024 quarterly reporting	Staff updates as part of quarterly internal reporting
What we will do	Copied from 2022-2024 Strategic Plan
What does success look like	Copied from Board June 2021 strategic workshop presentation
How will we measure success in 2024*	

**A summary of indicators, by strategic priority, is located at the end of this report*

SP1.1, Investigate and validate the purpose and scope of accreditation												
Status: ⟫												
Planned activities *(as set in June 2021)*	**2022**				**2023**				**2024**			
1. Benchmark accreditation												
2. Report on state of engineering education												
3. Investigate academic requirement for licensure												
4. Examine the purpose of accreditation												
5. Set a path forward												

2024 quarterly reporting	**Q1**	**Q2**
1. Develop a benchmark of the accreditation system report	• Completed in 2022. Reports are available on the futures of engineering accreditation website.	
2. Develop a state of education research report	• Completed in 2022. Reports are available on the futures of engineering accreditation website.	
3. Develop an academic requirement for licensure	• The Academic Requirement Task Force produced and submitted a report to the Futures of Engineering Accreditation (FEA) Steering Committee, which recommends the development of a Full-Spectrum Competency Profile (FSCP) encompassing 34 competencies divided into eight domains and designed to span the entirety of an engineer's career journey, from undergraduate studies to the practice of engineering. • A subset of theFSCP competencies are recommended to form the National Academic Requirement for Licensure which are intended to be acquired through an engineer's academic training and determined by the point of graduation, serving as foundational skills necessary for advancement from undergraduate studies to the practice of engineering. • The report also identifies gaps between the current and the desired state, as well as potential solutions to close them.	• Completed in the Q2 of 2024.

2024 quarterly reporting	Q1	Q2
	• This content served as the foundation for the April Path Forward Co-Design session. Additional gaps and recommendations were identified and short, medium, and long-term actions for implementation were explored.	
4. Develop a foundational statement about the purpose of accreditation	• The Purpose of Accreditation Task Force published a report, which recommends a revised purpose of accreditation: "Accreditation provides assurance that an engineering program is designed and delivered such that its graduates meet the [academic requirement][1] to be licensed as professional engineers in Canada." The report also identifies gaps between the current and the desired state, as well as potential solutions to close them. • This content served as the foundation for the April Path Forward Co-Design session. Additional gaps and recommendations were identified and short, medium, and long-term actions for implementation were explored.	• Completed in the Q2 of 2024.
5. Set a path forward	• The Path Forward Co-Design session took place on April 17-18. Participants included Steering Committee members, Regulator Advisory Group, the CEAB and CEQB Executive Committees, and EDC members (or designates) who have served or are serving on FEA Task Forces. • The purpose of this session was to leverage the two reports above to evaluate the implications of the recommended: o Purpose of accreditation o National academic requirement for licensure. • Participants explored potential changes, identified key gaps, and recommended priorities for the Steering Committee to address in the Path Forward report.	• External writing resource secured and actively working on Path Forward Report with the Steering Committee. • • An in-depth project update delivered at the May Board meeting and a workshop was held with the CEAB on June 2. • June touch-base with Regulator Advisory Group (RAG) were fruitful. • Project updates for the CEAB and Officials Groups are being scheduled. • Fall share-outs with Regulators are being scheduled. •

[1] The term "[academic requirement]" is a placeholder for the name of the specific academic conditions determined by the FEA's Academic Requirement Task Force. Once the academic requirement for licensure is clearly defined, it is expected to be consistent with the expectations of applicants who do not hold a degree accredited by the CEAB.

Summary of strategic priority	
What we will do	We will conduct a fundamental review of the accreditation process, investigate the best practices in engineering education, and work with Regulators and stakeholders to understand if there is a desire to adopt a new, national academic requirement for licensure as well as an updated purpose of accreditation. If there is, we will reconsider the accreditation system.
What does success look like?	A. All stakeholders have visibility of the modes of accreditation in use nationally and internationally B. All stakeholders have visibility of the current and future realities of engineering education C. Regulators have an academic requirement for licensure, applicable to all D. All stakeholders understand the purpose of accreditation E. Engineers Canada, including the CEAB and CEQB, have direction to implement systems aligned with the purpose and the academic requirement for licensure

SP1.2, Strengthen collaboration and harmonization												
Status: 												
Planned activities *(as set in June 2021)*	**2022**				**2023**				**2024**			
1. Collaborate with Regulator staff to identify barriers and opportunities												
2. Develop a national statement of collaboration with all jurisdictions												
3. Identify specific areas of harmonization for collaboration												

2024 quarterly reporting	Q1	Q2
1. Collaborate with Regulator staff to identify barriers and opportunities	• Completed in 2022.	
2. Develop a national statement of collaboration with all jurisdictions	• Statement was approved by the Engineers Canada Board in Q2 and was on track to be approved by Members in May.	• Statement was signed by the Members in May 2024.
3. Identify specific areas of harmonization for collaboration	• Areas were identified in 2023. • Work was underway to complete the implementation of the first area. • The 2025-2029 Strategic Plan includes future areas of regulatory collaboration.	• Actively working on continuing professional development (CPD) as a new regulatory area through the development of a Memorandum of Understanding (MOU) (In addition to the ongoing advancement of several other ongoing projects and initiatives that are considered examples of collaboration and/or harmonization). • In 2025, we will work with Regulators to implement a process to select future areas of collaboration.
Summary of strategic priority		
What we will do	Fostering collaboration and consistency of requirements, practices, and processes across jurisdictions is at the heart of our mandate. We will work with Regulators to understand barriers and success factors leading to harmonization and facilitate the adoption of a national agreement that will establish the principles and areas where pan-Canadian harmonization will be sought.	
What does success look like?	A. Engineers Canada has a clear mandate and key focus areas for regulatory harmonization B. Regulators benefit from collaboration and resource sharing, supporting improved practices	

SP1.3, Support the regulation of emerging areas												
Status: 												
Planned activities *(as set in June 2021)*	**2022**				**2023**				**2024**			
1. Identify and investigate new and overlapping areas of engineering practice that will have a long-term impact on the public												
2. Continue to work with the federal government to promote the role of engineers in emerging areas												

2024 quarterly reporting	Q1	Q2
1.Identify and investigate new and overlapping areas of engineering practice that will have a long-term impact on the public	• An RFP was drafted to hire a contractor to write a Research paper on Machine Learning and Data Science and its ties to engineering. • An advisory group has been created to inform the content. • The final paper is expected to be completed by the end of 2024.	• Consultation underway until July.
2.Continue to work with the federal government to promote the role of engineers in emerging areas	• Engineers Canada continued to promote the role of engineers in emerging areas through already published national position statements.	• No work, as planned.
Summary of strategic priority		
What we will do	Technological advances move much faster than legislative change and engineers who work in emerging areas of practice may not fully understand or consider the long-term professional and ethical impacts and obligations. We will provide information to Regulators on the long-term impacts of engineering practice in emerging areas and a framework for the evaluation of professional and ethical obligations. This will enable Regulators to educate license holders in these emerging areas of practice and to regulate more effectively.	
What does success look like?	A. Regulators receive information that helps them adapt their admission, enforcement, and practice-related processes and uphold the framework for ethical practice B. The federal government is made aware of the importance of the work of engineers in emerging areas	

SP2.1, Accelerate 30 by 30												
Status:												
Planned activities *(as set in June 2021)*	**2022**				**2023**				**2024**			
1. National research strategy												
2. Facilitate collaboration and information exchange for Regulators												
3. 30 by 30 annual national conference												
4. Reporting on national and regional metrics												
5. Engaging employers												
6. National resources												

2024 quarterly reporting	**Q1**	**Q2**
1. National research strategy	• Findings and recommendations from the strategy will be presented at the national 30 by 30 conference in Q2.	• Findings and recommendations from the strategy were presented at the national 30 by 30 conference in Q2. • Attended and presented key findings related to 30 by 30 initiative at the Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT) conference.
2. Facilitate collaboration and information exchange for Regulators	• We distributed the monthly 30 by 30 newsletter to Champions and engineering interest holders. • Provided updates to the Regulators on Engineers Canada's research and initiatives (i.e. QB Guideline, EDI training for regulators) • Sponsored the Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT) summit.	• Organized meetings with our 30 by 30 champions to help inform the direction and their involvement in the 30 by 30 annual conference.
3. 30 by 30 annual national conference	• Registration for the 2024 conference opened and over $92K in sponsorship has been secured.	• Conference was held and was successful.
4. Reporting on national and regional metrics	• Survey has been distributed to Regulators and data has been received.	• Data has been received.

2024 quarterly reporting	Q1	Q2
5. Engaging employers	• We are working with the Employer Task Force to draft criteria for the establishment of an employer champion program.	• Employer task force was struck with representation from engineering employers from across Canada. They will o Identify what it means to be a 30 by 30 employer champion. o Establish draft criteria that was incorporated into the employer breakout session at the conference.
6. National resources	• We finalized research on women in leadership within engineering and are starting to review gaps based on needs identified by the 30 by 30 champion network.	30 by 30 network and Outreach and Engagement Working group were consulted to identify gaps in knowledge to address concerns related to women's advancement and EIT programs. • Based on this information, two reports were produced that will be distributed in Q3.
Summary of strategic priority		
What we will do	To support progress towards 30 by 30 and to develop Engineers Canada's capacity to address the underlying issues holding back the progress of 30 by 30.	
What does success look like?	A. Regulators have information and support that enables them to increase inclusion and the number of engineering graduates who proceed through the licensure process B. Representation of women is increasing within every step of the pipeline: students at HEIs, graduates, engineers-in-training (EITs), newly licensed engineers, and engineers C. Employers have information that enables them to make their workplaces more equitable, diverse, and inclusive D. Lessons learned from the 30 by 30 work inform initiatives in support of increasing representation of under-represented groups including but not restricted to Indigenous, racialized, and LGBTQ2+ persons	

SP2.2, Reinforce trust and the value of licensure																
Status:																
Planned activities *(as set in June 2021)*	**2022**				**2023**				**2024**							
1. Marketing campaign																
2. Value of licensure messaging																
3. Engineering grad and EIT outreach programming																
4. Foundational research																

2024 quarterly reporting	**Q1**	**Q2**
1. Marketing campaign	• Campaign plan has been approved, and production on updates to the Building Tomorrows creative is underway. • Spring flight is planned for launch in Q2.	• Spring flight of the Building Tomorrows campaign is completed. Initial results show performance matching or exceeding benchmarks.
2. Value of licensure messaging	• Tools continue to be available. • Check-in with advisory group on usage postponed until Q2 to ensure advisory group can focus on the marketing campaign development and launch of Pathway to Engineering.	• Tools continue to be available, and a check-in with group will correspond with release and discussion of Building Tomorrows spring flight reporting.
3. Engineering graduate and EIT outreach programming	• Pathway to Engineering was launched and the first webinar held. • Focus in Q2 will be on growing engagement and establishing the years' editorial and creative calendar.	• Pathway to Engineering editorial calendar development to carry into 2025 is underway and paid promotional campaign in development for September launch.
4. Foundational research	• No work this quarter, as planned.	
Summary of strategic priority		
What we will do	We will create and promote a consistent, national message that will showcase the diversity of the profession, the breadth of engineering in both traditional and new disciplines, and the value of engineering licensure to the public, engineering graduates, engineers-in-training (EITs), and employers.	
What does success look like?	A. Targeted public audiences perceive engineers as trustworthy and recognize engineering as a licensed profession B. Engineering graduates and EITs recognize value in licensure C. Regulators have a valuable national messaging framework and marketing support tools	

SP3.1, Uphold our commitment to excellence												
Status: ⟫												
Planned activities *(as set in June 2021)*	**2022**				**2023**				**2024**			
1. Sustain an excellence culture												
2. Identify and implement continual improvements												
3. Confirm measurements and sustainability												
4. Achieve Platinum level certification from Excellence Canada												

2024 quarterly reporting	Q1	Q2
1. Sustain an excellence culture	• Orientation sessions and the submission for our Excellence Canada certification were completed.	• Completed in Q2 2024. Certification was obtained.
2. Identify and implement continual improvements	• All continual improvement items are incorporated in operational work.	• Completed in Q2 2024. Certification was obtained.
3. Confirm measurements and sustainability	• An internal self assessment was completed as well as a review by an Excellence Canada staff member to confirm readiness to apply.	• Completed in Q2 2024. Certification was obtained.
4. Achieve Platinum certification	• Application completed and verification planned for Q2.	• Completed in Q2 2024. Certification was obtained.
Summary of strategic priority		
What we will do	The demand for change continues and we are facing pressure to deliver on the diverse and changing needs of Regulators, Higher Education Institutions (HEIs), and the engineering community. To continually adapt, we need an effective and sustainable approach that ensures that we are a high-performing organization. By 2024, we will achieve platinum level certification from Excellence Canada by demonstrating measurable, sustained, and continually-improved performance over at least a three-year period, as measured against the Excellence, Innovation, and Wellness Standard.	
What does success look like?	A. Regulators, HEIs, and the engineering community benefit from effective delivery of products and services B. Staff benefit from increased engagement and retention, working in motivated teams, and improved health C. Engineers Canada benefits from sustainment of a high level of performance	

Summary - How will we measure success in 2024?

Strategic priority	What does success look like	How will we measure success in 2024?
SP1.1, Investigate and validate the purpose and scope of accreditation	A. All stakeholders have visibility of the modes of accreditation in use nationally and internationally	A1. Publication of the accreditation system benchmarking report
	B. All stakeholders have visibility of the current and future realities of engineering education	B1. Publication of the engineering education report
	C. Regulators have an academic requirement for licensure, applicable to all	C1. The Engineers Canada Board passes a motion affirming the academic requirement for licensure C2. Regulators receive the academic requirement for licensure and all CEOs commit to sharing and implementing it with all necessary groups C3. CEAB receives the academic requirement for licensure and commits to incorporating it in their documents C4. CEQB receives the academic requirement for licensure and commits to incorporating it in their documents C5. HEIs receive the academic requirement for licensure
	D. All stakeholders understand the purpose of accreditation	D1. The Engineers Canada Board passes a motion affirming the purpose of accreditation D2. Regulators receive the affirmed purpose of accreditation, and all CEOs commit to sharing it with all necessary groups D3. CEAB publishes the affirmed purpose of accreditation D4. CEQB members receive the affirmed purpose of accreditation D5. Higher Education Institutions (HEIs) receive the affirmed purpose of accreditation D6. Students, through the CFES, receive the affirmed purpose of accreditation
	E. Engineers Canada, including the CEAB and CEQB, have direction to implement systems aligned with the purpose and the academic requirement for licensure	E1. Path-forward report is published and distributed to Regulators, CEAB, CEQB, Engineers Canada CEO, EDC, and CFES

Strategic priority	What does success look like	How will we measure success in 2024?
SP1.2, Strengthen collaboration and harmonization	A. Engineers Canada has a clear mandate and key focus areas for regulatory harmonization	A1. Consultation reports that document all Regulators' perspectives A2. Production of a national statement of collaboration signed by Regulators A3. The Regulator CEOs defining one or more areas for future harmonization
	B. Regulators benefit from collaboration and resource sharing, supporting improved practices	B1. The number of Regulators contributing to the development of programs, products, services, information, or processes B2. The number of Regulators using programs, products, services, information, or processes that are nationally promoted
SP1.3, Support the regulation of emerging areas	A. Regulators receive information that helps them adapt their admission, enforcement, and practice-related processes and uphold the framework for ethical practice	A1. Regulatory research papers on emerging areas of engineering practice are published and distributed to Regulators A2. Regulators report that they are reading the reports, considering them in their decision making, or that they helped them fulfill their mandate A3. Perceived value of research papers by the Regulators
	B. The federal government is made aware of the importance of the work of engineers in emerging areas	B1. One new National Position Statement relating to emerging disciplines is developed, as appropriate B2. Number of engagements (written consultations and in-person meetings) with parliamentarians or senior federal officials, on matters relating to emerging areas of engineering practice
SP2.1, Accelerate 30 by 30	A. Regulators have information and support that enables them to increase inclusion and the number of engineering graduates who proceed through the licensure process	A1. Completion and use of a national research strategy on diversity data demographics and qualitative research on equity, diversity, and inclusion A2. The number of Regulators contributing to the development and implementation of the strategy; Regulators involved in development only; Regulators not engaged A3. Publication of research reports on Engineers Canada website A4. Number of partners engaged in the development of the research report(s) (i.e., development and participation; participation only; not engaged) A5. Facilitation of collaboration and information exchange for Regulators (e.g., continued coordination of 30 by 30 working group, communications that address Regulator needs)

Strategic priority	What does success look like	How will we measure success in 2024?
		A6. We held 3 to 4 annual meeting with Regulators
	B. Representation of women is increasing within every step of the pipeline: students at HEIs, graduates, engineers-in-training (EITs), newly licensed engineers, and engineers	B1. Reporting on national and regional metrics: • Provide tools for Regulator tracking and reporting on metrics related to 30 by 30 B2. Annual publication of National Membership Report B3. Annual collection of Regulator scorecard metrics B4. Annual scorecard summary presented to Board and CEO Group B5. 3-4 Regulators are involved in the development and use of target
	C. Employers have information that enables them to make their workplaces more equitable, diverse, and inclusive	C1. Completing addressing of the recommendations in the GBA+ report* regarding engaging employers C2. Creating a national strategy to engage employers with buy-in from the Regulators and building on the existing 30 by 30 network of Champions C3. All Regulators contribute a national 30 by 30 employer strategy C4. Recognizing employer excellence in 30 by 30
	D. Lessons learned from the 30 by 30 work inform initiatives in support of increasing representation of under-represented groups including but not restricted to Indigenous, racialized, and LGBTQ2+ persons	D1. Execution of annual 30 by 30 conference from 2022 to 2024 and inviting Regulators, HEIs and employers to contribute to a culture change in the engineering profession at a high profile, widely accessible national event, featuring best practices, key research, and actionable tools D2. The number of Regulators contributing and participating to the development of the conference D3. The number of employers: contributing and participating in the conference D4. Completion of national resources that respond to recommendations and best practices outlined in previous research. For example, a resource that can be used by Regulators to improve their licensure assistance and employer awareness programs based on the 2021 GBA+ report* on national Licensure Assistance Program and Employee Awareness Program D5. The number of Regulators participating and promoting the national resources

Strategic priority	What does success look like	How will we measure success in 2024?
		*Definition: GBA+ is an analytical process created by Status of Women Canada; used across the country by the federal government and also well-known across most sectors; considers multiple and diverse intersecting identity factors that impact how different people understand and experience initiatives
SP2.2, Reinforce trust and the value of licensure	A. Targeted public audiences perceive engineers as trustworthy and recognize engineering as a licensed profession	A1. Pre- and post-campaign audience perception research A2. Number of impressions and actions A3. Value of earned media* A4. Number and sentiment* of online interactions *Definitions: • Earned media – news coverage in media • Earned media value – the estimated value of news coverage • Sentiment analysis – an analysis of the tone of comments
	B. Engineering graduates and EITs recognize value in licensure	B1. Pre- and post-campaign perception research targeting engineering graduates and EITs B2. Number of impressions and actions B3. Number and sentiment of online interactions
	C. Regulators have a valuable national messaging framework and marketing support tools	C1. Number of Regulators engaged in the development of the framework and tools and the nature of their involvement C2. Identification by Regulators of where and how the messaging and support tools will be used and follow up to confirm use C3. Ongoing feedback received on the project
SP3.1, Uphold our commitment to excellence	A. Regulators, HEIs, and the engineering community benefit from effective delivery of products and services	A1. Achieve platinum certification as part of external benchmarking
	B. Staff benefit from increased engagement and retention, working in motivated teams, and improved health	B1. Achieve platinum certification as part of external benchmarking
	C. Engineers Canada benefits from sustainment of a high level of performance	C1. Achieve platinum certification as part of external benchmarking

MINUTES OF THE 226th ENGINEERS CANADA BOARD MEETING

May 17, 2024, 12:00pm-1:00pm (ET)

Virtual meeting | Zoom

The following Directors were in attendance:	
N. Hill, President (Chair), PEO	A. English, Engineers & Geoscientists BC
M. Winch, President-Elect, Engineers & Geoscientists BC	T. Joseph, APEGA
K. Baig, Past President, OIQ	H. Kennedy, APEGA
A. Arenja, PEO	S. Larivière-Mantha, OIQ
N. Avila, APEGA	M. Mekomba, OIQ
E. Barber, APEGS	D. Nedohin-Macek, Engineers Geoscientists MB
C. Bellini, PEO	M. Sterling, PEO
G. Connolly, Engineers PEI	J. Van der Put, APEGA
The following Directors sent regrets:	
A. Anderson, Engineers Yukon	M. Rose, APEGNB
C. Cumming, Engineers Nova Scotia	D. Spracklin-Reid, PEGNL
S. Jha, NAPEG	N. Turgeon, OIQ
T. Kirkby, PEO	
The following CEO Group Advisor was in attendance:	
The following Direct Reports to the Board were in attendance:	
L. Go, General Counsel and Corporate Secretary	N. Proulx, Director, Human Resources
The following observer sent regrets:	
Stormy Holmes, CEO, APEGS	
The following staff were in attendance:	
Joan Bard Miller, Manager, Governance, Board Services	Nicole Proulx, Director, Human Resources
Light Go, General Counsel and Corporate Secretary	

1. Opening

1.1 Call to order and approval of agenda

N. Hill, President, Engineers Canada called the meeting to order at 12:03pm ET. Participants were welcomed and the land was acknowledged.

Motion 2024-05-1D
Moved and seconded
THAT the agenda be approved, and the President be authorized to modify the order of discussion.
Carried

Meeting rules and norms were reviewed, as included in the agenda book.

1.2 Declaration of conflict of interest

No conflicts were declared. Participants were reminded to declare a conflict at any time during the meeting, as necessary.

2. In-camera session

2.1 Board Directors and CEO Search Committee members

Motion 2024-05-2D
Moved and seconded

THAT the meeting move in-camera and be closed to the public at the recommendation of the Board. The attendees at the in-camera session shall include Board Directors and CEO Search Committee members.
Carried

Motion 2024-05-3D
Moved and seconded
THAT the Board, upon recommendation of the CEO Search Committee, appoint Philip Rizcallah as Engineers Canada's CEO effective August 6, 2024; and that the resolution be moved out of camera.
Carried

Motion 2024-05-4D
Moved and seconded
THAT the meeting move out of camera.
Carried

3. Board business/required decisions

3.1 Completion of the CEO Search Committee mandate

With the appointment of the new CEO, the Board recognized the completion of the CEO Search Committee's mandate.

Motion 2024-05-5D
Moved and seconded
THAT the 2023-2024 CEO Search Committee be stood down, with thanks.
Carried

4. Next meetings

The next Board meetings are scheduled as follows:

- May 24, 2024 (Winnipeg, MB)
- June 17, 2024 (Osoyoos, BC)
- October 10, 2024 (Ottawa, ON)
- December 9, 2024 (virtual)
- February 28, 2025 (Ottawa, ON)
- April 2, 2025 (virtual)
- May 23, 2025 (Vancouver, BC)

The upcoming 2024-2025 committee and task force meetings are scheduled as follows:

- HR Committee: May 25, 2024 (Winnipeg, MB)
- All 2023-2024 committees: June 17, 2024 (Osoyoos, BC)

5. Closing

With no further business to address, the meeting terminated at 12:42pm ET.

Minutes prepared by J. Bard Miller for:

Nancy Hill, B.A.Sc., LL.B., FCAE, FEC, P. Eng., President
Light Go, General Counsel and Corporate Secretary

MINUTES OF THE 226th ENGINEERS CANADA BOARD MEETING

May 24, 2024, 8:30am-4:30pm (CDT)

Hybrid meeting: Fort Garry, Winnipeg | Zoom

The following Directors were in attendance:	
N. Hill, President (Chair), PEO	T. Joseph, APEGA
M. Winch, President-Elect, Engineers & Geoscientists BC	H. Kennedy, APEGA
K. Baig, Past President, OIQ	T. Kirkby, PEO
A. Anderson, Engineers Yukon	S. Larivière-Mantha, OIQ (virtual, left at 11:32am)
A. Arenja, PEO	M. Mekomba, OIQ
N. Avila, APEGA	D. Nedohin-Macek, Engineers Geoscientists MB
E. Barber, APEGS	M. Rose, APEGNB
C. Bellini, PEO	M. Sterling, PEO
G. Connolly, Engineers PEI	N. Turgeon, OIQ
C. Cumming, Engineers Nova Scotia	J. Van der Put, APEGA
A. English, Engineers & Geoscientists BC	
The following Directors sent regrets:	
S. Jha, NAPEG	D. Spracklin-Reid, PEGNL
The following CEO Group Advisor was in attendance:	
P. Mann, Chair	
The following Direct Reports to the Board were in attendance:	
F. Collins, Chair, CEQB	G. McDonald, CEO
P. Cyrus, Chair, CEAB	L. Go, General Counsel and Corporate Secretary
The following observers were in attendance:	
Dan Abrahams, VP, PEO	Andrew Lockwood, incoming Director, APEGS
Kathryn Atamanchuk, President, Engineers Geoscientists MB	Michelle Mahovlich, President, EGBC
Chris Borg, Account Manager, Manulife	Marianne LeBlanc, President, Engineers PEI
Elliott Coles, incoming Director, Engineers PEI	Jean-Luc Martel, incoming Director, OIQ
Lia Daborn, CEO, APEGNB	Vince McCormick, CEO, NAPEG
Lisa Doig, incoming Director, APEGA	Erin Moss-Tressel, President, APEGS
Adam Donaldson, President, Engineers Nova Scotia	Anjum Mullick, incoming Director, APEGA
Mark Fewer, CEO, PEGNL	Sandro Perruzza, CEO, OSPE
Jamie Grasley, VP External, CFES	Jeff Pieper, Vice Chair, CEAB
Michael Gregoire, CEO, Engineers Geoscientists MB	Manon Plante, APEGA, Past President
Jeanine Groenewegen, Marketing Manager, Manulife	Philip Rizcallah, incoming CEO, Engineers Canada
Maxime Guilbanlt, Relationship Manager, TD Insurance	Archie Sachdeba, Director, Partnerships, Manulife
Paul Guy, President, NAPEG	Sarah Sternbergh, President, Engineers Yukon
Stormy Holmes, APEGS, Executive Director & Registrar	Max Stiles, AVP, TD Insurance
Sam Inchasi, Vice Chair, CEQB	Adam Wallace, Engineers Yukon, Vice President
Kimberley King, Engineers Yukon, Executive Director	Mary Wells, Chair, EDC
Jim Landrigan, Engineers PEI, Executive Director / Registrar	Gregory Wowchuk, President, PEO
	Heidi Yang, CEO, Engineers & Geoscientists BC

	Holly Young, President, APEGNB
The following staff were in attendance:	
Joan Bard Miller, Manager, Governance, Board Services Tanya Boucher, Manager, Member Services Juliet Chou, Governance Coordinator Nathan Durham, Manager, Public Affairs Megan Falle, Manager, Regulatory Liaison Isabelle Flamand, Specialist, Qualifications (virtual) Brent Gibson, Manager, Communications Trina Hubley, VP, Regulatory Affairs Ryan Melsom, Secretary, CEQB (virtual) Derek Menard, CFO Ivan Ntale, IT analyst (virtual) Melanie Ouellette, Manager, Strategic and Operational Planning (virtual)	Alison Peverley, Coordinator, Qualifications (virtual) Nicole Proulx, Director, Human Resources (virtual) Julie Sendrowicz, Planning, Event, and Change Practitioner Kyle Smith, Manager, Regulatory Research and International Mobility (Virtual) Jeanette Southwood, VP, Corporate Affairs & Strategic Partnerships Heidi Theelen, Director, Strategic Planning and Organizational Excellence (virtual) Mya Warken, Secretary, CEAB

1. Opening

1.1 Call to order and approval of agenda

N. Hill, President, Engineers Canada, called the meeting to order at 8:36 am CDT. Participants were welcomed and the land was acknowledged.

In recognition of the Board's in-camera meeting held on May 17, 2024, the pre-circulated agenda was modified to:

- Reflect that the current meeting was the 227th Engineers Canada Board meeting, and
- Remove agenda item 4.7.

Motion 2024-05-6D
Moved and seconded
THAT the agenda be approved, as amended, and the President be authorized to modify the order of discussion.
Carried

Meeting rules and norms were reviewed, as included in the agenda book.

N. Hill shared a diversity moment focused on gender equity.

1.2 Declaration of conflict of interest

No conflicts were declared. Participants were reminded to declare a conflict at any time during the meeting, as necessary.

1.3 Review of previous Board meeting

a) Action item list

The list was pre-circulated.

b) Board attendance list

The attendance list was pre-circulated.

2. Executive reports

2.1 President's report

N. Hill began her report by welcoming Engineers Canada's incoming CEO, P. Rizcallah, P. Eng., and inviting him to say a few introductory remarks to the Board.

N. Hill updated the Board on her Engineers Canada-related activities since the previous Board meeting, which included:

- Bi-weekly touch-base meetings with G. McDonald, CEO, Engineers Canada,
- Attendance at Regulator AGMs,
- Video messages for various regulator AGMs,
- A meeting with Engineers Canada's President-Elect and the Chair and Past Chair of Engineering Deans Canada to discuss the Futures of Engineering Accreditation (FEA), and
- Attendance at the two-day FEA co-design session for the Path Forward Report.

N. Hill noted that it is anticipated that the Path Forward Report will be presented to the Board before the end of the year and expressed her preference that the report be accompanied by motions to move the recommendations forward.

She expressed appreciation to the organizers of the 2024 30 by 30 Conference and thanked G. McDonald for his six years of service as Engineers Canada's CEO.

2.2 CEO update

G. McDonald updated the Board on operational activities since the past Board meeting, as circulated in his weekly email update to the Board.

2.3 2022-2024 Strategic Plan report

G. McDonald presented the Q1 interim strategic performance report that had been pre-circulated to the Board.

T. Hubley, Vice President, Regulatory Affairs, Engineers Canada, presented an update on the progress of SP 1.1 Futures of Engineering Accreditation. Presentation slides were pre-circulated to the Board.

Through clarifying questions answered by staff, the Board sought to better understand the direction in which the project is moving, timelines, anticipated outcomes and their perceived benefits, and interest holder engagement and feedback to date. Staff noted that feedback to date validated the current direction, and that further information will be collected through a prototype/pilot. In the coming months, the Steering Committee will develop a Path Forward report that will be presented to the Board in December for approval.

M. Wells, Chair, Engineering Deans Canada, expressed appreciation for the collaborative process undertaken, and support for the recommendations that have emerged so far.

2.4 CEO Group report

P. Mann, CEO Group Advisor to the Board, presented the pre-circulated slides updating the Board on the CEO Group's meeting held on May 21 and 23, 2024.

A clarifying question was asked and answered about compliance activities. With regard to areas of concern for the Regulators, it was noted that legislation in each jurisdiction is an obstacle to collaboration and harmonization. The CEO Group is considering areas of potential collaboration amongst Regulators and will bring recommendations to the Board in due course for consideration and prioritization.

2.5 Presidents Group report

K. Atamanchuk, President, Engineers Geoscientists Manitoba, presented the pre-circulated slides updating the Board on the Presidents Group meeting held on May 23, 2024.

The regular turnover in the President's Group creates communication challenges when the group only meets three times per year at the Engineers Canada Board meetings. It was thus noted that the President's Group would like to meet more frequently.

3. Consent agenda

3.1 Approval of minutes

a) THAT the minutes of the March 1, 2024 Board meeting be approved.
b) THAT the minutes of the April 3, 2024 Board meeting be approved.

3.2 List of partnership organizations

3.3 Update on the 50-30 Challenge

3.4 CEAB appointments

THAT the following CEAB appointments be approved for the period July 1, 2024 to June 30, 2027:

- Adel Omar Dahmane for Quebec (new member)
- Aparna Verma for the North (new member)
- Morteza Esfehani, member-at-large (new member)
- Marie-Isabelle Farinas, member-at-large (new member)
- James (Jim) K. W. Lee, member-at-large (second term)
- Christine Moresoli, member-at-large (new member)
- Ramesh Subramanian for Ontario (third term)

3.5 CEQB appointments

THAT the following CEQB appointments be approved for the period July 1, 2024 to June 30, 2027:

- John Diiwu, member at large (new member)
- Rishi Gupta, representative for British Columbia (new member)
- Kamran Behdinan, member-at-large (second term)
- Marcie Cochrane, member-at-large (second term)

Motion 2024-05-7D
Moved and seconded
THAT consent agenda items (3.1 to 3.5) be approved.
Carried

4. Board business/required decisions

4.1 Risk register / Corporate Risk Profile

D. Nedohin-Macek, Chair of the Finance, Audit, and Risk (FAR) Committee presented the Corporate Risk Profile and Risk registers which had been pre-circulated to the Board for information. She highlighted the changes made since the Board last reviewed the document.

Through a fulsome discussion the Board expressed interest in learning how to more effectively identify risks at the Board and committee levels, consider intersectionality in risks, and use the risk register / corporate risk profile as a decision-making tool. Consideration was also given to enhancing the risk appetite statement in its next iteration.

Directors reflected on the current risk ratings and suggested that the ratings may be higher for Board risks 2 – Decreased confidence in the governance, and 5 – Engineering is unwelcoming and exclusionary to under-represented people in engineering; and more attention be given to operational risk 8 - Insufficient client satisfaction. Moreover, it was suggested that 1) risk to the marks Engineers Canada owns be tracked, and 2) that the Board and senior leadership team participate in a table-top exercise on cyber security.

The Board's feedback will be considered by the FAR committee.

4.2 CEQB report

F. Collins, CEQB Chair, provided an update on behalf of the CEQB.

4.3 CEQB products

F. Collins presented for Board approval three CEQB products that had been pre-circulated.

Through the discussion, it was confirmed that efforts are taken to look for unconscious bias when developing and updating guidelines and that the decision to keep the guidelines on good character and the code of ethics separate was deliberate and reflected their respective purposes as determined by regulators. Moreover, it was confirmed that efforts are being taken to track the reception and use of the guidelines.

Motion 2024-05-8D
Moved and seconded
THAT the Board, on recommendation of the CEQB, approve the following products:

- ***New Public Guideline on duty to report***
- ***Revised Public Guideline on code of ethics***
- ***Revised Public Guideline on conflict of interest***

Carried

4.4 Governance Committee report

A. Anderson provided the update on behalf of the Governance Committee, noting that the 2023-2024 work plan is complete.

4.5 Board policy updates

On behalf of the Governance Committee, A. Anderson presented for the Board's consideration revisions to four (4) Board policies. The proposed revisions with accompanying rationales were pre-circulated to the Board.

- It was noted that time and planning would be needed by the CEAB and CEQB to achieve the targets set out in the federal government's 50-30, committed to by the Engineers Canada Board and included in the proposed revisions to the CEAB and CEQB's terms of reference.
- The Board confirmed with P. Mann that the CEO Group did not have any concerns with the proposed three-year review period for Board policy 7.11, *Consultation*, given the extent of the recent revisions.
- It was also noted that the Governance Committee will ensure that the legacy language "stakeholders" would be replaced with "interest holders" throughout the policy manual.

Motion 2024-05-9D
Moved and seconded
THAT the Board, on recommendation of the Governance Committee, approve the following revised Board policies:

- ***6.9, Canadian Engineering Accreditation Board (CEAB)***
- ***6.10, Canadian Engineering Qualifications Board (CEQB)***
- ***7.3, Board relationship with Engineering Deans Canada (EDC)***
- ***7.11, Consultation***

Carried with two-thirds

4.6 HR Committee report

A. Arenja provided the update on behalf of the HR Committee, noting that the 2023-2024 work plan is complete. In addition to the information captured in the pre-circulated slides, A. Arenja highlighted that Engineers Geoscientists Manitoba had provided a list of candidates to the HR Committee for nomination to Engineers Canada's Board, rather than one nominee per vacancy as was the status quo. K. Atamanchuk, President, Engineers Geoscientists MB, signaled her support for the enhanced nomination process.

4.7 Completion of the CEO Search Committee mandate

This item was approved by the Board at its meeting on May 17, 2024, and removed from the current meeting agenda.

4.8 FAR Committee

D. Nedohin-Macek provided an update on behalf of the FAR Committee, noting that the 2023-2024 work plan is complete. Appreciation was expressed for the clarity of materials presented to the Board by the FAR Committee over the past year.

4.9 CEAB report

P. Cyrus provided the Board with an update on CEAB activities. In his report, he asked the Board to advise on restarting policy work as part of its 2025 work plan. All major CEAB work had been paused while Strategic Priority 1.1 Investigate and Validate the Scope and Purpose of Accreditation is underway. The priority's Path Forward Report is expected to be delivered to the Engineers Canada Board in December 2024. The CEAB stated that the longer policy work is paused, the longer errors in the accreditation system persist and go unaddressed.

Through a fulsome discussion the Board sought to further understand the implications of restarting policy work, including the critical issues in the accreditation system that would be addressed, potential contradictions with the policy recommendations put forward in the Path Forward Report, and the impact on resources currently focused on the Futures of Engineering Accreditation.

ACTION: That the CEAB pre-circulate to the Board for consideration at its June meeting a report of urgent maintenance-related policy work that the CEAB considers critical for the integrity of the accreditation system.

4.10 Board's 30 by 30 Champion

T. Joseph provided the update on behalf of the 30 by 30 network. In addition to presenting the pre-circulated slides, he remarked on the success of the 30 by 30 Conference held on Wednesday, May 22, and its lead-up events.

5. Annual updates from interest holders

Representatives from EDC and CFES were invited to provide updates, with supporting slide presentations made available on the Engineers Canada website.

5.1 Engineering Deans Canada (EDC)

M. Wells, Chair of EDC, provided the Board with an annual update on behalf of EDC. Clarifying questions were asked and answered.

5.2 Canadian Federation of Engineering Students (CFES)

J. Grasley, VP External, provided an update on behalf of CFES. Supporting slides were pre-circulated to the Board.

Through clarifying questions answered by J. Grasley and staff, the Board learned more about Engineers Canada's partnership with CFES and efforts to address barriers to licensure, including the Pathway to Licensure portion of the 2022-2024 strategic priority 2.2 Reinforce trust and the value of licensure.

On behalf of CFES, J. Grasley asked the Board whether there were plans for Engineers Canada to consider issuing a statement to the Government of Canada with regard to its policies for international students and/or support plans for international students after their degree.

ACTION: Engineers Canada's Public Affairs Advisory Committee will be asked to consider a statement around policies and support plans for international students, as requested by the CFES.

6. Elections and appointments

6.1 Election of the President-Elect

Four candidates applied for the position of President-Elect. The resumes of each applicant were pre-circulated to the Board along with an outline of the voting process.

Motion 2024-05-10D
Moved and seconded
THAT the Board appoint Engineers Canada CEO, and hosting Regulator, Engineers Geoscientists Manitoba, as scrutineers for the 2024 President-Elect election; and after the election, the ballots be destroyed by the scrutineers.
Carried.

Following three rounds of voting, John Van der Put was elected Engineers Canada's President-Elect for 2024-2025.

6.2 Appointment of the 2024-2025 HR Committee

N. Hill presented the HR Committee's recommendation to the Board for appointees to the 2024-2025 HR Committee, in addition to the President, Past President and President-Elect.

Discussion followed about the process in which prospective members were identified and it was noted that the recommended membership aimed to provide continuity during the CEO transition. Directors suggested that rotating committee members helps to build necessary skills across the Board. It was suggested that the process for selecting Directors to serve on committees be codified.

Motion 2024-05-11D
Moved and seconded
THAT the Board, on recommendation of the HR Committee, appoint the following Directors to the 2024-2025 HR Committee:
a) Ann English
b) Arjan Arenja
Carried

6.3 Director Appointment to the CEAB

N. Hill presented the HR Committee's recommendation that L. Doig be appointed to the CEAB, as outlined in the pre-circulated briefing note.

Motion 2024-05-12D
Moved and seconded
THAT the Board, on recommendation of the HR Committee, appoint Lisa Doig to the CEAB for a two-year term beginning May 25, 2024, and ending at the June 22, 2026, Board meeting.

7. Generative discussion

N. Hill invited the Board to engage in a generative discussion about emerging trends in regulation. The Board discussed in small break-out groups. Insights from the discussions were shared in plenary.

8. Next meetings

The next Board meetings are scheduled as follows:

- June 17, 2024 (Osoyoos, BC)
- October 10, 2024 (Ottawa, ON)
- December 9, 2024 (virtual)
- February 28, 2025 (Ottawa, ON)
- April 2, 2025 (virtual)
- May 23, 2025 (Vancouver, BC)

The upcoming 2024-2025 committee and task force meetings are scheduled as follows:

- HR Committee: May 25, 2024 (Winnipeg, MB)
- All 2023-2024 committees and task forces: June 17, 2024 (Osoyoos, BC)

9. In-camera sessions

9.1 Board Directors and Direct Reports

Motion 2024-05-13D
Moved and seconded
THAT the meeting move in-camera and be closed to the public at the recommendation of the Board. The attendees at the in-camera session shall include Board Directors, Engineers Canada CEO, the chairs of the CEAB and CEQB, and the Secretary.
Carried

9.2 Board Directors, Direct Reports, CEO Group Advisor, and staff

Motion 2024-05-14D
Moved and seconded
THAT the meeting move in-camera and be closed to the public at the recommendation of the Board. The attendees at the in-camera session shall include Board Directors, the Engineers Canada CEO, the chairs of the CEAB and CEQB, the CEO Group Advisor to the Board, the Secretary, the Manager, Governance and Board Services, the Director, Finance, and the Manager, Member Services.
Carried

9.3 Board Directors and CEO

Motion 2024-05-15D
Moved and seconded

THAT the meeting move in-camera and be closed to the public at the recommendation of the Board. The attendees at the in-camera session shall include Board Directors, and the Engineers Canada CEO.
Carried

9.4 Board Directors only

Motion 2024-05-16D
Moved and seconded
THAT the meeting move in-camera and be closed to the public at the recommendation of the Board. The attendees at the in-camera session shall include Board Directors.
Carried

10. Closing

With no further business to address, the meeting terminated at 4:55pm CDT.

Minutes prepared by J. Bard Miller for:

Nancy Hill, B.A.Sc., LL.B., FCAE, FEC, P. Eng., President
Light Go, General Counsel and Corporate Secretary

MINUTES OF THE 228st ENGINEERS CANADA BOARD MEETING

June 17, 2024 | 9:00am – 09:45am PDT

Hybrid meeting: Spirit Ridge hotel and Resort, Osoyoos, BC | Zoom

The following Directors were in attendance	
M. Wrinch, Chair, Engineers & Geoscientists BC	T. Kirkby, PEO
J. Van der Put, President-Elect, APEGA	S. Larivière-Mantha, OIQ
N. Hill, Past President, PEO	A. Lockwood, APEGS
A. Arenja, PEO	J. Martel, OIQ
C. Bellini, PEO (Virtual)	M. Mekomba, OIQ
E. Coles, Engineers PEI	A. Mullick, APEGA
C. Cumming, Engineers Nova Scotia	J. Paliwal, EGMB
C. Dixon, Engineers Yukon	M. Rose, APEGNB
L. Doig, APEGA	D. Spracklin-Reid, PEGNL
A. English, Engineers & Geoscientists BC	M. Sterling, PEO
S. Jha, NAPEG (Virtual)	N. Turgeon, OIQ
T. Joseph, APEGA	
The following Directors sent regrets	
The following CEO Group Advisor was in attendance	
P. Mann, Chair, CEO Group	
The following Direct Reports to the Board were in attendance	
F. Collins, Chair, CEQB	G. McDonald, CEO
J. Pieper, Vice-Chair, CEAB	L. Go, General Counsel and Corporate Secretary
The following staff were in attendance	
J. Bard Miller, Manager, Governance and Board Services	N. Proulx, Director, Humen Resources (Virtual)
J. Chou, Governance Coordinator (Virtual)	J. Southwood, VP, Corporate Affairs & Strategic Partnerships
T. Hubley, Vice President, Regulatory Affairs	P. Rizcallah, incoming CEO, Engineers Canada

1. Opening

1.1 Call to order and approval of agenda

President M. Wrinch, Board Chair, welcomed participants and acknowledged the land. The meeting was called to order at 9:06 am PDT.

Motion 2024-06-1D
Moved and seconded
THAT the agenda be approved and the President be authorized to modify the order of discussion.
Carried

Meeting rules and norms were reviewed, as included in the agenda book.

1.2 Declaration of conflict of interest

No conflicts were declared. Participants were reminded to declare a conflict at any time during the meeting, as necessary.

2. Board business/required decisions

2.1 Director appointments to committees, task forces, and roles

N. Hill, Chair of the HR Committee, introduced the HR Committee's recommendations for committee appointments, as pre-circulated in the agenda book. In its recommendations, the HR Committee tried to accommodate each Directors' first choice of committee. The HR Committee also proposed that its

membership be increased by two given the interest and additional work to onboard Engineers Canada's new CEO. No questions were received.

Motion 2024-06-2D
Moved and seconded
THAT the Board, on recommendation of the HR Committee, appoint the following individuals to committees, task forces, and roles for terms as outlined:

a) Director appointee – CEAB
- ***Ann English (2024-2026)***

b) Director appointee – CEQB
- ***Sudhir Jha (2024-2026)***

c) 30 by 30 Champion (2024-2025)
- ***Tim Joseph***

d) Finance, Audit, and Risk (FAR) Committee (2024-2025)
- ***Menelika Mekomba***
- ***Christian Bellini***
- ***Anjum Mullick***
- ***Jitendra Paliwal***
- ***Marlo Rose***
- ***Nicolas Turgeon***
- ***Steve Vieweg***

e) Governance Committee (2024-2025)
- ***Crysta Cumming***
- ***Elliott Coles***
- ***Chris Dixon***
- ***Nancy Hill***
- ***Sophie Larivière-Mantha***
- ***Andrew Lockwood***
- ***Jean-Luc Martel***

f) Human Resources Committee (2024-2025)
- ***Darlene Spracklin-Reid***
- ***Marisa Sterling***

Carried

2.2 Completion of the Strategic Plan Task Force mandate

The Board's discussion was supported by a pre-circulated briefing note recommending that the Strategic Plan Task Force be stood down given the completion of its mandate.

The Board considered whether it is necessary to have a small task force to help the Board monitor delivery of the 2025-2029 strategic plan. Following some reflection, it was suggested that the Board and its committees further deliberate on the suggestion.

Motion 2024-06-3D
Moved and seconded
THAT the Strategic Plan Task Force (2022-2025) be stood down, with thanks.
Carried

2.3 Completion of the Collaboration Task Force mandate

C. Bellini, Chair, Collaboration Task Force, presented the recommendation to stand down the Collaboration Task Force as outlined in the pre-circulated briefing note.

The Board sought clarification of next steps to operationalize collaboration and harmonization efforts. Engineers Canada's primary role to date has been to facilitate discussions amongst Regulators to the point of all 12 Regulators signing on to the National Statement of Collaboration. With this completed on May 23, 2024, efforts now turn to operationalization which will flow through the CEO Group. At its

meeting in July 2024, the CEO Group will discuss 1) the process to approve projects for collaboration and harmonization, and 2) projects for priority consideration moving forward. The Board will provide oversight of collaboration efforts and engage in discussions of project resourcing, as needed.

Motion 2024-06-4D
Moved and seconded
THAT the Collaboration Task Force be stood down, with thanks.
Carried

2.4 CEAB policies

J. Pieper, Chair, CEAB, recommended that specific policy work resume as part of its 2025 workplan, as outlined in the pre-circulated briefing note. He spoke about the potential benefits of conducting maintenance on certain policies in the short-term and suggested that the potential risks in doing so would be negligible.

G. McDonald, CEO, Engineers Canada, referred to the pre-circulated briefing note prepared by staff and recommended that, as per the Board's prior instruction, policy work continue to be paused until it may be considered within the context of the recommendations in the Path Forward Report for the future of accreditation.

Directors opined on considerations put forward and asked clarifying questions that were answered by the CEAB Chair and CEO. The CEAB will present its 2025 work plan to the Board at its meeting in October 2024.

3. Next meetings

The next Board meetings are scheduled as follows:

- October 10, 2024 (Ottawa, ON)
- December 9, 2024 (virtual)
- February 28, 2024 (Ottawa, ON)
- April 2, 2025 (virtual)
- May 23, 2025 (Vancouver, BC)
- June 16, 2025 (TBC)

The next committee and task force meetings are scheduled as follows:

- June 17, 2024 (Osoyoos, BC):
  - Governance Committee
  - FAR Committee
  - HR Committee
- HR Committee: September 5, 2024 (virtual)
- HR Committee: November 21, 2024 (virtual)
- HR Committee: December 12, 2024 (virtual)
- HR Committee: February 28, 2025 (Ottawa)
- HR Committee: April 2, 2025 (virtual)

4. Closing

With no further business to address, the meeting terminated at 9:51am (PDT).

Minutes prepared by J. Bard Miller for:

Michael Wrinch, PhD, FEC, P.Eng., ICD.D, President Light Go, General Counsel and Corporate Secretary

BRIEFING NOTE: For decision by the Board

Approval of committee and task force work plans	3.2
Purpose:	To approve the work plans of the 2024-2025 Board committees and task forces
Link to the Strategic Plan / Purposes:	Board responsibilities: Hold itself and its Direct Reports accountable
Link to the Corporate Risk Profile:	Decreased confidence in the governance functions (Board risk)
Motion(s) to consider:	*a) THAT the Board approve the 2024-2025 FAR Committee work plan.* *b) THAT the Board approve the 2024-2025 Governance Committee work plan.* *c) THAT the Board approve the 2024-2025 Human Resources Committee work plan.*
Vote required to pass:	Simple majority
Transparency:	Open session
Prepared by:	J. Bard Miller, Manager, Governance and Board Services
Presented by:	M. Rose, Chair of the FAR Committee; S. Larivière-Mantha, Chair of the Governance Committee; N. Hill, Chair of the HR Committee;

Problem/issue definition

- The Finance, Audit, and Risk (FAR) Committee enhances the Board's effectiveness and efficiency on matters related to financial, audit, and risk management policies and monitoring.
- The Governance Committee is tasked to enhance the Board's effectiveness and efficiency on matters relating to Board governance principles and policies and to fulfill its Board responsibility to *ensure the development and periodic review of Board policies*.
- The Human Resources (HR) Committee enhances the Board's effectiveness and efficiency by overseeing the timely delivery of the Director onboarding and development program and monitoring and assessing the performance of the Board, Board committees, Directors, and the CEO so that Engineers Canada can deliver on its mandate.
- Work plans to support these purposes and fulfill the responsibilities outlined in the committees' respective terms of reference are drafted annually and presented to the Board for approval.

Proposed action/recommendation

- To approve the committee and task force work plans.

Other options considered

- None. Committees and task forces are expected to submit annual work plans with specific deliverables and deadlines as per Board policy 6.1, *Board committees and task forces*.

Risks

- Failure to meet the responsibilities of these committees and task forces could put the organization at reputational risk.
- Operating without an approved work plan introduces risks of not considering all necessary items and does not demonstrate the Board's responsibility in being accountable to the Regulators.
- These risks are mitigated by setting and adhering to a committee or task force work plan, which is approved and monitored by the Board.

Financial implications

- Financial implications will be included in the 2025 budget.

Benefits

- Provides transparency to stakeholders (Board and committee members, staff, and Regulators) regarding how Engineers Canada is governed.

Consultation

- When developing their work plans, the committees and task forces relied on the recommendations of the 2023-2024 committees and task forces, input from Engineers Canada staff, and Board direction.

Next steps (if motions approved)

- Committees and task forces to execute their work plans.

Appendices

- **Appendix 1:** FAR Committee work plan
- **Appendix 2:** Governance Committee work plan
- **Appendix 3:** HR Committee work plan

Finance, Audit, and Risk Committee 2024-2025 work plan

Committee purpose: The Finance, Audit, and Risk (FAR) Committee enhances the Board's effectiveness and efficiency on matters related to financial, audit, and risk management policies and monitoring.

As per policy 6.4, *Finance, Audit, and Risk (FAR) Committee terms of reference*[1], the FAR Committee shall:

- Annually, review and approve the CEO's budget envelope assumptions.
- Annually, review the CEO's draft budget and make recommendations to the Board.
- Review the CEO's quarterly financial reports and make recommendations to the Board, as necessary.
- Review on a quarterly basis any changes to the Board and operational risk registers, as applicable, and report anything of significance to the Board.
- Complete an annual review of the Corporate Risk Profile before it is shared with the Board, generally in May, or whenever significant changes occur.
- Conduct in-depth analysis of the Board's strategic risks and make recommendations of acceptable mitigation strategies, residual risks, and required actions to the Board as an input to each new Strategic Plan.
- Review the investment reports (prepared by a third-party advisor) at least annually and make recommendations to the Board.
- Review and recommend changes to the Board's investment policy.
- Oversee the annual audit including:
    - Annually assessing the auditor considering independence, communication and interaction, and quality of the engagement team.
    - Confirming the scope of the audit, which shall include a review of the key financial processes.
    - Providing an annual report to the Board regarding the audited financial statements and any significant information rising from discussions with the auditor.
    - Providing an annual report to the Members with:
        - The Board's approval of the audited financial statements,
        - A summary of the auditor's observations together with Engineers Canada staff response, and
        - The Board's recommendation for the appointment of the following year's auditor.
    - Conducting a comprehensive review of the auditor at least every five years. The outcome of this review is a recommendation to either retain the audit firm or select an alternative audit firm.
    - Providing information to the Board, as provided by the auditor, on significant new developments in accounting principles or relevant rulings of regulatory bodies with implications for the Board's financial policies.
- Review and update the Board on finance-related matters, such as internal financial controls and finance-related policies and procedures.

[1] Last amended on September 29, 2022.

- Conduct an annual review of any new long-term procurement contracts that extend beyond five years with a value that exceeds $100,000 per annum.

At this time, the 2024-2025 work plan is as follows:

Mtg. #	Work plan item	Committee approval	Document deadline	Board meeting/ presentation
1.	a) Confirm FAR committee chair b) Approve committee work plan c) Approve high-level budget assumptions	June 17, 2024 Osoyoos	Aug 12, 2024	October 10, 2024
2.	a) Review draft budget (includes recommendation for setting the per capita assessment fee) b) Review Q2 financial statements c) Review Q2 investment performance report	August 12, 2024 Virtual	August 27, 2024	October 10, 2024
3.	a) Overview and discussion of risk register b) Review Q2 risk register, as needed	August 22, 2024 Virtual	August 27, 2024	October 10, 2024
4.	a) Review final budget (includes recommendation for setting the per capita assessment fee) b) Review of Board policy 5.6, *Planning,* prior to its review by the Governance Committee	October 22, 2024 Virtual	October 24, 2024 / December 23, 2024	December 9, 2024 / February 28, 2025
5.	a) Review Q3 financial statements b) Review Q3 investment performance report c) Review Q3 risk register, as needed d) Review audit plan	Dec. 13, 2024 Virtual	N/A	N/A
6.	a) Review Q4 financial statements b) Review Q4 & annual investment performance report	Feb. 20, 2025 Virtual	Mar 10, 2025	April 2, 2025
7.	a) Review audited financial statements b) Review briefing note regarding appointment of auditors c) Review long-term procurement contracts d) Annual review Corporate Risk Profile e) Present final report for 2024-2025 committee contributions, including recommended additions for the 2025-2026 committee work plan.	March 6, 2025 Virtual	March 10, 2025[i] / March 24, 2025	April 2, 2025 / May 23, 2025

Mtg. #	Work plan item	Committee approval	Document deadline	Board meeting/ presentation
8.	a) Review Q1 financial statements b) Review Q1 investment performance report c) Review Q1 risk register, as needed d) Review finance-related operational policies e) Review of Appendix A to Board policy 7.12, *Net Assets*	May 9, 2025 Virtual	N/A	N/A

[i] The draft audited statements are the focus of this Board meeting.

Governance Committee
2024-2025 Work Plan

Committee purpose: The Governance Committee is tasked to enhance the Board's effectiveness and efficiency on matters relating to Board governance principles and policies and to fulfill its Board responsibility to *ensure the development and periodic review of Board policies*.

As per Board policy 6.8, *Governance Committee terms of reference,* the Governance Committee shall:

- Review and maintain the currency and relevance of Board policies and governance documents;
- Review and make recommendations on the currency and relevance of the Bylaws and Articles of Continuance;
- Make recommendations for Board education related to governance and Board effectiveness;
- Undertake such research or reviews as may be assigned by the Board; and
- Conduct a periodic survey of Regulators and Directors to evaluate the effectiveness of Board governance and operations and develop action plans to address any required improvements.

The Governance Committee has the authority to make editorial changes to Board policies such as the correction of typographical and grammatical errors, to ensure the consistent use of terminology and plain language, and to update references.

The outgoing (2023-2024) Governance Committee-recommended work, as captured in Board report 5.4 from the May 2024 Board meeting, has been incorporated into the plan below.

Mtg. #	Work plan Item	Committee approval	Document deadline	Board meeting/ presentation
1	a) Confirm Governance Committee chair b) Approve committee work plan c) Approve 2023-2024 policy review schedule d) Conduct round 1 policy reviews	June 17, 2024 Osoyoos	August 12, 2024	October 10, 2024
2	a) Discuss draft Governance Review Task Force terms of reference	August 27, 2024 Virtual	August 12, 2024	October 10, 2024
3	b) Bylaw review c) Conduct round 2 policy reviews d) Confirm housekeeping updates to policy manual, including replacing the term "stakeholder" with "interest holder"	September 18, 2024 Virtual	October 8, 2024 / August 12, 2024	December 9, 2024 / October 10, 2024

Mtg. #	Work plan Item	Committee approval	Document deadline	Board meeting/ presentation
	e) Recommend to the Board the governance review terms of reference			
4	a) Conduct round 3 policy reviews b)	November 13, 2024 Virtual	Dec. 23, 2024	February 28, 2025
5	a) Conduct round 4 policy reviews b) Review the draft ESG policy, as part of the 2025-2029 Strategic Plan c) Make recommendations for Board education to inform the HR Committee's development budget.[1] d) Approve final report for 2024-2025 committee contributions, including recommended additions for the 2025-2026 committee work plan	March 13, 2025 Virtual	March 24, 2025	May 23, 2025

[1] The Governance Committee's insights may be informed by the 2024-2025 Board Self-Assessment Report, contemporary issues facing the Board, etc. Insights from the Governance Committee will be shared with the HR Committee at its meeting in May when it reviews the 2026 budget considerations.

Human Resources Committee
2024-2025 Work Plan

Committee purpose: The Human Resources (HR) Committee enhances the Board's effectiveness and efficiency by overseeing the timely delivery of the Director onboarding and development program and monitoring and assessing the performance of the Board, Board committees, Directors, and the CEO so that Engineers Canada can deliver on its mandate.

As per Board policy 6.12, *Human Resources Committee terms of reference,* the HR Committee shall:

a) Nominate new committee members and recommend committee chairs annually, as per Board policy 6.1, *Board Committees and Task Forces*;
b) Annually review policies which provide for the sound management of Engineers Canada's volunteers and personnel;
c) Establish, administer, and annually review competency profiles for the Board, individual Directors, and chairs;
d) Provide oversight of the Director onboarding and development program;
e) Annually review succession plans for the CEO, the Board, and Board committees;
f) Annually confirm succession plans for the direct reports to the CEO;
g) Develop and recommend annual objectives for the CEO to the Board;
h) Conduct regular CEO assessments and make recommendations to the Board regarding annual CEO compensation; and,
i) Review results of the employee engagement survey.

The outgoing (2023-2024) HR Committee-recommended work, as captured in Board report 4.6 from the May Board meeting, has been incorporated into the plan below. The responsibilities listed above from the committee's terms of reference are due to be reviewed by the HR and Governance committees at their respective meetings in September.

Mtg. #	Work plan item	Committee approval	Board document deadline(s)	Board meeting/ presentation
a)	a) Confirm HR Committee chair. b) Approve HR Committee work plan. c) Nominate Directors to committees, task forces, and other roles (and recommend chairs)[i] d) Recommend "Board buddies" for 2024-2025. e) Consider 2025 budget requirements for Director development, Board assessments, and CEO evaluation.	May 25, 2024 Winnipeg / Virtual	May 27, 2024 / August 12, 2024	Jun 17, 2024 / October 10, 2024
b)	a) Approve the revised HR Committee work plan. b) Review best practices of transition activities for new CEO	June 17, 2024 Osoyoos / Hybrid	August 12, 2024	October 10, 2024
c)	a) High-level review of select Engineers Canada operational (HR) policies. b) Review of HR Committee-related Board policies prior to their review by the Governance Committee.[ii]	Sept 5, 2024 Virtual	October 8, 2024	Dec 9, 2024

[i] The 2023-2024 HR Committee noted the value of having continuity of membership on committees over a two-year period and recommended that the guidelines for populating committees be discussed.

[ii] The policy review is an opportunity for the committee to consider ways "to support work-life balance for all Engineers Canada volunteers", as per Board resolution 2023-12-5D. It is also an opportunity to consider how to

Mtg. #	Work plan item	Committee approval	Board document deadline(s)	Board meeting/ presentation
	c) Annual review of the competency profiles for the Board, individual Directors, and chairs.[iii] d) Confirm questionnaires for the Chair assessments.[iv] e) Update on the CEO transition activities f) Update on plans to strike a Governance Review Task Force In-camera session (HR Committee and Director, HR) g) Review succession plans for the CEO and direct reports to the CEO			
d)	In-camera session (HR Committee + CEO): a) CEO to present CEO's 2024 objective results[v] In-camera session (HR Committee): b) CEO informal review Open session c) Confirm questionnaires for the Board and Director assessments.[vi] d) Discuss draft CEO objectives and associated ratings for 2025 with the consultant engaged to assist with their preparation. e) Nominate members to the Governance Review Task Force	Nov 21, 2024 Virtual	December 23, 2024	February 28, 2025
e)	In-camera session (HR Committee): a) Measurement of CEO's 2024 objective results[vii] b) Finalize recommendation to Board regarding STI. In-camera session with CEO c) CEO development plan Open session d) Recommend Board approval of CEO's objectives for 2025	Dec. 12, 2024 Virtual	Jan 15, 2025[viii]	February 28, 2025
f)	In-camera session (3Ps + CEO only): a) HR Committee representatives (3Ps and the committee chair) to meet with CEO to review results of CEO assessment and compensation review and to	February 28, 2025 Ottawa, ON	n/a	February 28, 2025

codify procedures for CEO dismissal, i.e., the number of Board votes required, as identified by the 2023-2024 Governance Committee at its November 2023 meeting.

[iii] Review of Board competency data will help to identify competencies for Board recruitment by the Regulators.

[iv] The 2023-2024 HR Committee recommended that consideration be given to improving the user experience and response rate, and how to get the most out of the process.

[v] Typically, the CEO presents objective results for the current calendar year and responds to committee questions. Following this presentation, each member provides their scores to the chair within 7 business days. Discussion and debate will take place at the committee meeting that follows in December.

[vi] Similar to the feedback provided on the chair assessment surveys, the 2023-2024 HR Committee recommended that consideration be given to improving the user experience and response rate, and how to get the most out of the process.

[vii] Each member will be asked to send their scores to the chair in advance. Discussion and debate will focus on areas where there was a difference, or a point needs to be raised.

[viii] This is the date by which the chair must have all documents that will be shared with the Board in February finalized and sent to the external translator. Staff will coordinate with the chair to provide the contact information for the translator.

Mtg. #	Work plan item	Committee approval	Board document deadline(s)	Board meeting/ presentation
	communicate the Board's decision for STI recommendation[ix]			
g)	a) Nominate Directors to the 2025-2026 HR Committee b) Review results of Board self-assessment survey[x] c) Review Director orientation program d) Reflect on lessons learned over the year and recommend policy revisions as appropriate. e) Review the HR Committee terms of reference and propose changes as needed. f) Present final report for 2024-2025 committee contributions, including recommendations for the 2025-2026 committee's work plan	April 2, 2025 Virtual	March 24, 2025	May 23, 2025

[ix] Translated assessment reporting circulated to Board, along with short-term incentive (STI) recommendation and objectives scoring. The CEO receives the assessment report, a letter from the HR Committee chair, and the STI recommendation (approved motion) is provided to Engineers Canada's finance department post-meeting.

[x] The self-assessment survey results are required to produce the HR Committee nominee recommendation and the Board self-assessment report.

BRIEFING NOTE: For decision

Canadian Engineering Accreditation Board (CEAB) and Canadian Engineering Qualifications Board (CEQB) volunteer recruitment and succession plans	3.3
Purpose:	To approve the 2025-2026 CEAB and CEQB volunteer recruitment and succession plans
Link to the Strategic Plan/Purposes:	Core purpose 1: Accrediting undergraduate engineering education programs Core purpose 3: Providing services and tools that enable the assessment of engineering qualifications, foster excellence in engineering practice and regulation, and facilitate mobility of practitioners within Canada Core purpose 7: Managing risks and opportunities associated with mobility of work and practitioners internationally
Link to the Corporate Risk Profile:	Accreditation (Board risk) Governance functions (Board risk)
Motion(s) to consider:	*a) THAT the Board approve the 2025-2026 CEAB volunteer recruitment and succession plan.* *b) THAT the Board approve the 2025-2026 CEQB volunteer recruitment and succession plan.*
Vote required to pass:	Simple majority
Transparency:	Open session
Prepared by:	Mya Warken, Manager, Accreditation, and CEAB Secretary Ryan Melsom, Manager, Qualifications, and CEQB Secretary
Presented by:	Jeff Pieper, Chair, CEAB Frank Collins, Chair, CEQB

Problem/issue definition

- On an annual basis, the Board is responsible for approving volunteer recruitment and succession plans for the Canadian Engineering Accreditation Board (CEAB) and the Canadian Engineering Qualifications Board (CEQB) in accordance with Board policies 6.9 and 6.10.

Proposed action/recommendation

- That the 2025-2026 CEAB and CEQB volunteer recruitment and succession plans be approved.
- The attached plans reflect the impacts of term limit changes in Board Policies 6.9 and 6.10, which were approved by the Board in May 2023.

Other options considered:

- No other options were considered, as the volunteer recruitment and succession plans reflect the needs of the CEAB and CEQB in respect to its membership.

Risks

- Without due consideration of volunteer recruitment and succession planning, there is a risk that the CEAB and CEQB may not have the resources (i.e. volunteers) with the skills or experience needed to successfully complete their work. This would negatively affect the timeliness and quality of their work, resulting in diminished value of Engineers Canada to the Regulators, among other things. This risk is mitigated, in part, by the annual development of a volunteer recruitment and succession plan, which is reviewed and approved by the Board.
- Without having reviewed and approved the volunteer recruitment and succession plan, the Engineers Canada Board fails to monitor the work of the CEAB and CEQB, two of four Direct Reports, resulting in diminished Regulator confidence.

Financial implications

- None. All considerations are included in the 2025 proposed budget.

Benefits

- The CEAB will continue to have the resources to fulfill its mandate to conduct accreditation business and develop and maintain accreditation policies.
- The CEQB will continue to have the resources to fulfill its mandate to provide services and tools that enable the assessment of engineering qualifications, foster excellence in engineering practice and regulation, and facilitate mobility of practitioners within Canada, and which serve the needs of Regulators.

Consultation

- This volunteer recruitment and succession plan was developed by staff and reviewed by the CEAB's Executive Committee and CEQB's Executive Committee.

Next steps

- Continue with volunteer recruitment and management as scheduled.

Appendices

- **Appendix 1:** 2025-2026 CEAB volunteer recruitment and succession plan
- **Appendix 2:** 2025-2026 CEQB volunteer recruitment and succession plan

2025-2026 CEAB volunteer recruitment and succession plan

Recruitment

Volunteer members

In accordance with Board policy 6.9, *Canadian Engineering Accreditation Board (CEAB)*, the CEAB consists of two categories of volunteers:

- **Members-at-large:** Appointed by the Engineers Canada Board on the recommendation of the CEAB Nominating Committee, based on work plan needs.
- **Members from the regions:** Appointed by the Engineers Canada Board on the recommendation of the appropriate Regulators and the support of the CEAB Nominating Committee.

Except for the Engineers Canada Director appointees (whose terms commence after they are appointed at the June Board meeting), member terms begin on July 1.

Volunteers are selected by the CEAB Nominating Committee in consultation with the Regulators and serve for a term of three (3) years. Members may, subject to the approval of the Engineers Canada Board, be twice reappointed for an additional three-year term, for a total of up to nine (9) years of total service. The term of office for the positions of Chair, Vice-Chair, and Past Chair is one (1) year.

Based on the procedures outlined in Board policy 6.9, for the 2025-2026 committee year the CEAB will seek:

- **Members-at-large:**
    - Re-appointment for two members-at-large:
        - Diane Kennedy – eligible for a second three-year term
        - John Allen Stewart (Al) – eligible for a third three-year term
- **Regional appointments:**
    - Re-appointment for one (1) member representing Atlantic:
        - Nicholas Krouglicof – eligible for a second three-year term
- One (1) new appointment, replacing the successful Vice-Chair candidate whose term starts July 1, 2025 (to be determined by election)

Given the current composition, the new member should have either academic or non-academic experience, preferably be female-identifying, and preferably be able to conduct accreditation visits in either English or French. A strategy to remain aligned with Engineers Canada's commitment to the federal government's 50-30 Challenge must be developed in future.

Director appointees

According to the process laid out in section 6.9.5 of Board policy 6.9, the Engineers Canada Board appoints two (2) Directors to the CEAB. Director appointees serve for a two-year term and are

appointed by the Board in alternate years, typically in June, so that there is always one more senior Director appointee on the CEAB, to ensure continuity of knowledge. Both current director appointees were appointed in 2024 and therefore consideration will need to be given as to manage future risk to continuity of knowledge.

Succession

The CEAB continues to focus on developing leadership capacity among CEAB members. Descriptions for various roles and responsibilities on the CEAB and accreditation visiting teams have been developed and approved to ensure consistency and continuity and to address recommendations from the CEAB's Accountability in Accreditation Committee to enhance training and documentation for the various roles.

Significant resources have been invested in the development and delivery of a training program to support the roll-out of Tandem, the accreditation data management system introduced in 2023. The training program will next focus on the development of an on-line introductory module for all Visiting Team members to review before the visit.

Committee, task force, and working group assignments

Positions for the CEAB's task forces and standing committees are reviewed annually in the summer and adjusted as needed, both to ensure reasonable distribution of leadership opportunities and to meet any forthcoming needs associated with the following year's anticipated work plan. Committee members are selected by the CEAB Executive, who weigh a combination of stated and demonstrated interest, experience, expertise, diversity and inclusivity considerations, and demonstrated leadership qualities.

Action required:

- The **Accountability in Accreditation Committee** will recruit one new member who will be appointed by the Executive Committee.
- The **Policies and Procedures (P&P) Committee** will recruit two new members who will be appointed via an election process as per the Terms of Reference.
- Because the CEAB Vice-Chair serves as the Chair of the P&P Committee and the individual elected to the position of Vice-Chair may not be a current member of the committee, the CEAB Vice-Chair-elect will be invited to observe the P&P Committee meetings from the time they are elected to the time where they assume the Chair of the Committee. This allows for a reasonable transition to the role.

Training for members

All new CEAB members follow an established training pathway as they become familiar with the CEAB's work and prepare to serve as a Visiting Team Chair. The pathway is approximately 12 months in duration, starting with observing an accreditation visit, to serving as a Program Visitor, then Vice-Chair, and finally chairing their first visit. Members' previous visit experience is considered in their specific pathway.

2025-2026 CEQB volunteer recruitment and succession plan

Recruitment

Volunteer members

In accordance with Board policy 6.10, *Canadian Engineering Qualifications Board (CEQB)*, the CEQB consists of two categories of volunteers:

- **Members-at-large:** Appointed by the Engineers Canada Board on the recommendation of the CEQB Nominating Committee, based on work plan needs.
- **Members from the regions:** Appointed by the Engineers Canada Board on the recommendation of the appropriate Regulators and the support of the CEQB Nominating Committee.

Except for the Engineers Canada Director appointees (whose terms commence after they are appointed at the June Board meeting), member terms begin on July 1.

Volunteers are selected by the CEQB Nominating Committee in consultation with the Regulators and serve for a term of three (3) years, with the potential to be reappointed for a second three-year term. The term of office for the positions of Vice-Chair, Chair, and Past Chair is two (2) years.

Based on the procedures outlined in Board policy 6.10, for the 2025-2026 committee year the CEQB will seek:

- **Member-at-large appointment (contingency):** Possible appointment for one (1) member-at-large. There is one member-at-large who has submitted interest in the CEQB Vice-Chair role. Should this member be successful, his position as member-at-large will need to be backfilled.
- **Atlantic provinces representative:** Appointment for one (1) member drawn from one of the four Atlantic provinces. As the current representative is completing a one-year extension of her term, with no eligibility for renewal, the Nominating Committee will work with the Atlantic regulators to locate a new nominee for this position.
- **Quebec representative:** Appointment for one (1) member drawn from Quebec. As the current representative is completing her second term, the Nominating Committee will work with Ordre des ingénieurs du Québec to locate a new nominee for this position.
- **Saskatchewan-Manitoba representative:** Appointment for one (1) member drawn from either Saskatchewan or Manitoba. As the current representative is completing a grandfathered third term, he is ineligible for reappointment. The Nominating Committee will work with Saskatchewan and Manitoba's regulators to locate a new nominee for this position.

Given the current composition of the CEQB and its governing policies, some or all of the new candidates would ideally be female identifying, would have volunteer experience working with the

Regulators, and would represent a combination of academic and industry experience. Notably, CEQB is undertaking development of a strategy to remain aligned with Engineers Canada's commitment to the federal government's 50-30 Challenge. An identified challenge in achieving this aspirational goal is that while CEQB can only encourage regulators to submit candidates matching the 50-30 goals, the decision ultimately rests solely at the Regulators' discretion.

Director appointees

In addition to volunteer members, according to the process laid out in section 6.10.5 of Board policy 6.10, the Engineers Canada Board appoints two (2) Directors to the CEQB. Director appointees serve for a two-year term and are appointed by the Board in alternate years in June, so that there is always one more senior Director appointee on the CEQB, to ensure continuity of knowledge.

Succession

The CEQB, with the support of the CEQB Secretariat, has undertaken several measures to ensure the development of leadership abilities among its members, as detailed more fully below.

Committee, task force, and working group assignments

Positions for the CEQB's task forces and standing committees are reviewed annually and adjusted as needed, both to ensure fair distribution of leadership opportunities and to meet any forthcoming needs associated with the following year's anticipated work plan. Committee members are selected by the CEQB Executive who weigh a combination of stated and demonstrated interest, experience, expertise, diversity and inclusivity considerations, and demonstrated leadership qualities. Currently, 4 out of 14 eligible CEQB members are serving in a leadership role. No new chair appointments are anticipated in 2025-2026, as all active committees have chairs.

Training for members

In addition to opportunities made available through Engineers Canada's initiatives, each year, the CEQB Executive evaluates gaps in the CEQB membership's knowledge and seeks out appropriate learning opportunities to better develop Board capacities. The CEQB Secretariat has continued to make improvements to the onboarding process for all new CEQB members and Board representatives, and this new process will be evaluated and improved as needed for the 2025 appointments cycle.

BRIEFING NOTE: For decision

National Position Statements	3.4
Purpose:	To approve new and updated National Position Statements
Link to the Strategic Plan/Purposes:	Core purpose 5: Advocating to the federal government
Link to the Corporate Risk Profile:	Diminished national collaboration (Board risk) Reputation (operational risk) Sustainability of engineering regulation (operational risk)
Motion(s) to consider:	*a) THAT the following updated National Position Statements be approved:* *i. Regulation of Coastal, Ocean and Related Subsurface Engineering* *ii. Artificial Intelligence Engineering Technology in Autonomous and Connected Vehicles* *iii. The Role of Engineers in Protecting and Advancing the Public Interest (Demand-Side Legislation)* *iv. Labour Mobility in Canada (National and International Labour Mobility)*
Vote required to pass:	Simple majority
Transparency:	Open session
Prepared by:	Nathan Durham, Manager, Public Affairs Jeanette Southwood, Vice President, Corporate Affairs and Strategic Partnerships
Presented by:	Philip Rizcallah, Chief Executive Officer

Problem/issue definition

- National Position Statements (NPSs) are positions on key issues relating to the public interest. These are consensus positions of the provincial and territorial Engineering Regulators. These statements:
  - Represent the collective position of the engineering profession
  - Influence public policy
  - Facilitate discussion with government
  - Provide information for our Members and those of the engineering profession
- Engineers Canada's Public Affairs Advisory Committee (PAAC) is tasked with creating the NPSs. This committee is comprised of volunteers with multi-disciplinary backgrounds and expertise.
- Each year, PAAC develops NPSs on new and existing issues facing the engineering profession. In addition, PAAC works to update the current NPSs to ensure they remain up-to-date and relevant. This helps ensure that parliamentarians and the federal government consider the expertise of the engineering profession in policy-making.
- The current process for deciding which topics PAAC will be developing in the upcoming year starts with a discussion of the potential topics during PAAC's May meeting. This process includes reviewing all existing NPSs and deciding which ones require updating as part of the annual update cycle. The topics identified by PAAC are circulated for consultation with the regulators. Once approved, PAAC develops and/or updates the NPSs and presents them to the Engineers Canada

Board and the Regulators for approval. The process for the identification and development of public policies supported by the Regulators is available in Board policy 9.3, *National Position Statements*.

- The NPSs for review at this meeting are linked to core purpose 5: Advocating to the Federal Government of the 2022-2024 Strategic Plan, and include updates to the following four position statements:
  - Regulation of Coastal, Ocean and Related Subsurface Engineering
  - Artificial Intelligence Engineering Technology in Autonomous and Connected Vehicles
  - The Role of Engineers in Protecting and Advancing the Public Interest (Demand-Side Legislation),
  - Labour Mobility in Canada (National and International Labour Mobility)

Proposed action/recommendation

- That the Board approve the attached NPSs.
- Once approved, the NPSs will be made public on Engineers Canada's website and will be relied upon when Engineers Canada staff and volunteers consult with the federal government on these issues.

Other options considered

- N/A

Risks

- Should the NPSs not be approved, the advocacy strategy would be impacted until a unified approach is agreed upon.

Financial implications

- N/A

Benefits

- To the Regulators:
  - A national position on key issues is beneficial as these issues affect the Regulators and the regulation of the engineering profession. Regulators strongly benefit from unified national positions.
  - Engineers Canada will have a unified position on topics in which the federal government is heavily engaged; therefore, it will potentially increase our profile with parliamentarians and senior federal officials.
- To the engineering profession:
  - These national positions provide clarity of the role of the engineering profession in helping tackle these current issues.
- To others (public, government, higher education institutions, individual engineers, etc.):
  - These national positions will provide the federal government with awareness on issues that Engineers Canada is currently working on that are linked to the federal government's mandate.

Consultation

- Our multi-disciplinary PAAC, Regulators (via the CEOs), and the Engineers Canada Board Directors were asked, by email, to review and provide comments and updates to the presented NPSs.
- While we received substantial feedback to strengthen the analysis and recommendations in these NPSs, there were no objections or concerns regarding the engineering profession's position as laid out in the NPSs being presented.

Next steps (if motion approved)

- The NPSs will be made public on Engineers Canada's website and will be relied upon when consulting with the federal government on these issues.

Appendix

- **Appendix 1:** NPSs for approval – track change versions highlighting areas of adjustment resulting from staff updates and consultation feedback, and clean copies.

Artificial Intelligence Engineering Technology in Autonomous and Connected Vehicles

The engineering profession's position

- The development of artificial intelligence (AI) engineering technology in autonomous and connected vehicles requires the unbiased, evidence-based advice and professional expertise of engineers in Canada.
- Maximizing the potential benefits of AI engineering technology with respect to autonomous and connected vehicles while minimizing the associated safety and economic risks requires the development of standards and regulatory processes by engineers and the contribution of engineers' knowledge toward the use of AI tools for problem-solving and technical solutions.
- ~~Engineering regulators in Canada exist to protect the public. They set high professional and ethical standards, establish and maintain codes of conduct, and administer regulatory processes for engineers to ensure protection of the public and the natural environment.~~
- Incorporating engineers' accountability into federal legislation and regulations surrounding ~~artificial intelligence~~AI engineering technology in autonomous and connected vehicles ~~weaves~~ keeps the engineering regulatory process woven into the fabric of government ~~and works to~~ and keeps Canadian consumers safe.
- ~~Maximizing the potential benefits of artificial intelligence engineering technology with respect to artificial intelligence in autonomous and connected vehicles while minimizing the associated safety and economic risks requires the development of standards and regulatory processes by engineers.~~

The challenge(s)

~~Artificial intelligence~~AI, autonomous capacities, and connected engineering technology have received extensive attention in recent years. ~~The definition of artificial intelligence has many variations as different entities define it in different ways; there is no universally accepted definition for artificial intelligence. Put simply, artificial~~ While the accepted definition of AI ~~intelligence~~ continues to evolve, one way of understanding AI is that it is a ~~a developed~~ developing engineering technology that uses algorithms and unique software to emulate and, in some cases, improve on human thoughts and performances such as learning, problem-solving, perceiving, and reasoning.[1] The application of ~~artificial intelligence~~AI is widespread throughout Canadian society, and has become a transformative element within many industries, including transportation. For vehicle engineering, AI is the backbone that integrates and enables vehicle connectivity (e.g., vehicle-to-vehicle, vehicle-to-infrastructure, and vehicle-to-everything communication), autonomous driving, and mobility solutions, such as mobility-as-a-service. ~~; specifically, in autonomous and connected vehicles.~~

[1] Davenport. T., and Ronanki, R. (2018). "Artificial Intelligence for the Real World." Retrieved July 10, 2018 from: https://hbr.org/2018/01/artificial-intelligence-for-the-real-world.

Autonomous capacities and semi-autonomous features have been rapidly built into vehicle features, specifically in the form of lane guidance, collision avoidance, assisted-braking capacities, and cruise control. Rapid connectivity has, in the short-term, enabled vehicles to interact with one another and with surrounding public infrastructure. As the technology evolves further and societal expectations for safety and efficiency increase, demand for vehicles with autonomous, "self-driving" capabilities will increase in Canada. The development of ~~artificial intelligence~~AI includes the work of multi-disciplinary teams that include various engineering disciplines such as software, electrical, and mechanical, among others.

~~The potential benefits of artificial intelligence in autonomous and connected vehicles in Canadian society are vast. Autonomous and connected vehicles have promised to increase highway safety and reduce traffic congestion for better use of consumer time, all while improving traffic pollution, energy use, comfort, and accessibility for commuters. Autonomous vehicles have promised to cause fewer vehicle collisions and have promised to mitigate human errors through artificial intelligence capabilities, advanced algorithms, and engineering technologies.~~

Although there are several identified benefits to autonomous and connected vehicle engineering technology in Canada, including fewer collisions, ~~and~~ improved energy use, and reduced GHG emissions, the~~se promises are largely uncertain and come with their own challenges and public safety concerns~~ technology carries uncertainty and raises concerns for public safety. A significant concern surrounding this engineering technology is the issue of accountability and liability; novel legal, moral, and ethical questions regarding the use of this technology ~~have yet to be addressed.~~routinely emerge, leading to a need for caution in the adoption and deployment of the technology. Consumers across Canada remain hesitant to use unproven technology on a regular basis and remain concerned about the possible unreliability of autonomous vehicle technology when faced with an emergency. This concern has demonstrated validity given the performance of early autonomous systems in motor vehicles and related accidents.[2] However, expanding the use of AI~~artificial intelligence~~ technology in autonomous and connected vehicles may also help law enforcement efforts to reduce car theft, and could enhance the confidence that drivers have in the safety and security of their vehicles. Engineering expertise will be essential in designing autonomous anti-theft systems.

Engineers Canada believes that it is vital for the federal government to be proactive in its approach to upholding public safety, the natural environment, and the economy. With the increasing demand for AI and autonomous vehicle technology in Canada, there has, and will continue to be, a rising demand for engineers working in this industry to ensure that public safety is upheld. The development and implementation of AI within autonomous vehicles in Canada will require the unbiased, strategic, and professional expertise of the engineering profession. This includes ensuring that only engineers who are licensed in the Canadian jurisdiction where their engineering work is taking place are performing engineering work.

For example, ~~A~~aerospace ~~engineering has significant~~engineers hold significant ~~experience~~ expertise ~~with~~ in the integration of human operators with semi-automated systems. ~~that suggests t~~Accidents that occurred during the early implementation of such systems ~~will result in accidents that~~helped to identify problems with the human-machine interface. Similar problems with semi-autonomous vehicles are beginning to appear, and are likely to be even more pronounced as highly

[2] For example, refer to National Transportation Safety Board (2019) investigations: *HWY16FH018, HWY19FH008, HWY18FH011*. Retrieved June 4, 2019 from: https://www.ntsb.gov/investigations/AccidentReports/Pages/HWY19FH008-preliminary-report.aspx

and fully automated vehicles become available for purchase in the coming years. - The engineering profession is well-placed to make use of this past learning to mitigate risks as the technology is integrated with motor vehicles. Engineers will be especially well-placed to provide solutions for the feasibility of using autonomous, connected and electric vehicles in winter weather conditions. Road conditions vary widely with weather and are more dangerous in Canadian winters than in US jurisdictions where autonomous and connected vehicles have been widely adopted. This challenge is especially pronounced when discussing the integration of AI technologies into vehicles that were designed and manufactured in another country. -

~~Gaining the benefits of this engineering technology for Canada and mitigating the risks, especially safety and economic risks, is contingent on the development of standards for the application of artificial intelligence with respect to its use in autonomous and connected vehicles and furthering the development of associated regulatory processes.~~

~~Finally, at present, there does not appear to be a thorough understanding that there is an urgent need to introduce comprehensive government policies and standards to regulate the application of artificial intelligence to devices and equipment that will have an impact on humans. Leaving this to the will of the associations of organizations engaged in the development of artificial intelligence for societal applications will lead to regulatory capture that will not serve the public interest.~~

~~Engineers Canada believes that it is vital for the federal government to be progressive and proactive in its approach to upholding public safety, the natural environment, and the economy. With the increasing demand for artificial intelligence and autonomous vehicle technology in Canada, there has, and will continue to be, a rising demand for engineers working in this industry to ensure that public safety is upheld. The development of artificial intelligence within autonomous vehicles in Canada will require the unbiased, strategic, and professional expertise of the engineering profession.~~

How Engineers Canada has contributed

~~The reality is that the engineering technology within autonomous and connected vehicles in Canada requires further investigation and research and must comply with federal and provincial vehicle safety standards. The need for engineers in Canada has never been greater; specifically, with the rise of public safety concerns around the rapid development of artificial intelligence.~~ To uphold public safety, while upholding public confidence and accountability in ~~artificial intelligence~~AI in autonomous vehicles, engineers must be consulted and included in major federal decisions that require engineering work. Further, they must be an integral part of the development and administration of such standards.

~~In 2016, the total number of engineers and skilled workers within the autonomous and connected vehicle industry in Canada was approximately 213,000.[3] As autonomous vehicle technology continues to grow, the demand for engineering talent and skills is expected to rise to a total of 248,000 workers by 2021.[4]~~

~~Mechanical engineers~~Engineers ~~will be required to~~ must be involved in the design, ~~and~~ building and integration of the necessary parts of autonomous vehicles ~~and civil engineers will be needed to~~as well as conceptualizing~~e~~ transportation and public infrastructure to support autonomous and

~~[3] Information and Communications Technology Council (2017). "Autonomous vehicles and the future of work in Canada." Retrieved May 15, 2019, from: https://www.ictc-ctic.ca/wp-content/uploads/2018/01/ICTC_-Autonomous-Vehicles-and-The-Future-of-Work-in-Canada-1-1.pdf.~~

~~[4] IBID~~

connected vehicle technology~~. Engineering disciplines, notably software, electrical and communication infrastructure engineers will be required to develop, maintain, and refine artificial intelligence technology for use within autonomous and connected vehicles, as well as manage the cloud computing systems that transmit information. In essence, fully integrated engineering teams will be essential to the successful design, development, and deployment of autonomous and connected vehicles.~~

~~Engineers Canada strongly believes in the importance of demand-side legislation; that is, legislation or regulations that require the certification of projects and work by an engineer. Engineers Canada participates in consultations on legislation and regulations that impact the work that engineers do, and address activities that could involve engineering work; specifically, in relation to the development of artificial intelligence in autonomous and connected vehicles.~~

~~In addition,~~ Engineers Canada, in collaboration with the provincial and territorial engineering regulators, developed a white paper to provide information and guidance to the engineering regulators regarding the discipline of software engineering.~~ on professional practice in software engineering.~~ It is intended to help enforcement and compliance officials identify software engineering practice that should be regulated—where it is reasonable to expect that an engineer is taking professional responsibility for the work. Software associated with ~~artificial intelligence~~ AI in autonomous and connected vehicles meets the conditions of an engineering work as there is a reasonable expectation that failure or inappropriate functioning of the system would result in harm to life, health, property, economic interests, the public welfare, or the environment.[5] Engineers Canada also developed a National Position Statement that outlines the conditions under which a piece of software can be considered an engineering work, and how such work should be regulated.[6] AI deployed for autonomous and connected vehicles will often meet these conditions, particularly in the case of fully automated or connected vehicles in the future. ~~The purpose of this white paper is to provide information and guidance to the engineering regulators regarding the discipline of software engineering. It is intended to help enforcement and compliance officials identify software engineering practice that should be regulated—where it is reasonable to expect that an engineer is taking professional responsibility for the work~~. ~~To protect the public and to prevent unqualified software development practitioners from assuming the responsibilities or the titles of software engineer, regulators need an understanding of the scope of regulated practice in software engineering. This software engineering white paper provides a framework within which software for autonomous and connected vehicles must be developed. It establishes criteria in which economic and safety risks must be managed.~~

Engineers Canada will continue to work with key federal departments to ensure that the value and benefit of having engineers involved in the development of ~~artificial intelligence~~AI in autonomous vehicles is recognized by Canadians.

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[5] Engineers Canada (2023~~16~~). "~~White Paper~~Engineers Canada Paper on Professional Practice in Software Engineering." Retrieved February 27, 2024~~19~~, from: https://engineerscanada.ca/guidelines-and-papers/engineers-canada-paper-on-professional-practice-in-software-engineering~~https://engineerscanada.ca/publications/white-paper-on-professional-practice-in-software-engineering~~.

[6] Engineers Canada (2022). "Professional Practice in Software Engineering." Retrieved February 29, 2024 from https://engineerscanada.ca/sites/default/files/public-policy/professional-practice-software-engineering-en.pdf

Recommendations to the federal government

~~The federal government should continue to invest in partnerships to establish Canada as a global leader in cybersecurity and automotive software for autonomous and connected vehicles.[7]~~

While it is positive that the federal government has taken multiple measures to support the expansion of automated and connected vehicle technologies in Canada, its current efforts have been focused on setting the conditions for their testing and use.[8] While these guidelines encourage organizations to engage with municipal governments, they make no reference to the need for the involvement of engineers accountable to a provincial or territorial engineering regulator. In Canada, engineers and regulators should play a bigger, if not pivotal, role in addressing the risks. Their expertise and accountability are vital for unbiased, evidence-based decision-making, ensuring that AI technology for use in autonomous and connected vehicles is developed and utilized in the best interest of the public.

Standards and regulatory processes developed by engineers can contribute to addressing safety concerns and realizing the benefit of this technology. In Canada, engineers should play a pivotal role in addressing the various risks associated with the integration of AI in autonomous and connected vehicles. These risks can be regrouped in a few fields where engineers should be involved, such as:

- Safety and reliability, including validation and testing.
- Cybersecurity vulnerabilities, including AI systems as targets and preventing malicious use.
- Ethical and bias concerns to reduce unfair or unsafe outcomes driven by algorithmic bias.
- Legal and liability issues, including helping to determine responsibilities when complex incidents occur, and clarifying regulatory challenges.
- Human-machine interaction, including transitioning control back to a human driver during emergencies and designing for potential driver complacency.

The federal government must continue to recognize that the Canadian public is best served when the jurisdiction of the provincial and territorial engineering regulators is recognized and respected.~~,~~ The engineering regulators and the profession as a whole are ready and willing to work collaboratively with the federal government.~~ and when it is acknowledged that provincial and territorial governments have delegated the authority to regulate the engineering profession to these 12 regulators.~~

~~Provincial and territorial regulators consistently strive to ensure that their admissions and licensing practices are timely, transparent, objective, impartial, and fair. Provincial and territorial regulators also set high professional and ethical standards, establish codes of conduct, and support and oversee the practice of professional engineering to ensure protection of the Canadian public. The engineering regulators and the profession are ready and willing to work collaboratively with the federal government.~~

The federal government should:

- Ensure that federal programs supporting the development of AI for autonomous and connected vehicles require the involvement and consultation of an engineer in accordance

~~[7] PMO News Release February 15, 2019 "Investment in automotive innovation to make vehicles safer a create jobs for Canadians" Retrieved February 15, 2019, from: https://pm.gc.ca~~

[8] Government of Canada (2021). "Guidelines for Testing Automated Driving Systems in Canada." Retrieved February 29, 2024 from https://tc.canada.ca/sites/default/files/2021-09/automated_driving_system_report_en.pdf

with provincial and territorial engineering acts. ~~engineers in Canada are consulted in the development of artificial intelligence associated with autonomous and connected vehicles.~~

- ~~Establish~~ Continue working with industry and regulators to develop standards and frameworks on the development, maintenance, and use of autonomous and connected vehicle technology in Canada.
- ~~Ensure that any legislation or regulations that refer to engineering work in the development of artificial intelligence or autonomous vehicle technology require the involvement of an engineer in accordance with provincial and territorial engineering acts.~~
- ~~Ensure that there is a legislative requirement that individuals involved in the development of artificial intelligence and autonomous vehicle technology be engineers who are licensed to do so, thereby encouraging compliance with professional regulatory legislation.~~

How Engineers Canada will contribute

Engineers Canada will:

- Work with key federal departments to ensure that the value and benefit of having engineers involved in the development and utilization of ~~artificial intelligence~~AI in autonomous vehicles is recognized by Canadians.
- Work with engineers in the public service to promote the value of appropriate professional involvement in the development and utilization of ~~artificial intelligence~~AI in autonomous vehicles.
- Monitor the government agenda, legislative initiatives, and proposed regulations to bring recommendations on ~~artificial intelligence~~AI in autonomous vehicles to the attention of government.
- Promote the awareness of engineering matters associated with ~~artificial intelligence~~AI technology in general and as it applies to autonomous and connected vehicles as part of engineers fulfilling their annual professional development and competency activities.

Regulation of Coastal, Ocean and Related Subsurface Engineering

The engineering profession's position

- The engineering profession believes ~~that it is in the public interest that~~ that public interest is best served when all ~~infrastructure~~engineering work, including ~~those~~ in offshore areas, is ~~are~~ regulated by the ~~respective~~ provincial or territorial regulator ~~of the jurisdiction~~ where the equipment is deployed.~~all infrastructure designed or built for use in Canada—which includes its offshore areas—must be regulated by the provincial or territorial regulator in the jurisdiction in which the equipment is being used~~.
- In instances where engineering facilities are utilized or engineering activities are conducted outside of provincial or territorial jurisdiction but under federal government jurisdiction, it is in the public interest that federal regulations provide the same level of assurance as those ~~enforced within the jurisdiction of provincial or territorial authorities.~~that provincial and territorial engineering regulators enforce, including the requirement that ~~for~~ engineers working on coastal, ocean and subsurface projects ~~to~~ be licensed. Such instances include engineering facilities or activities either on the oceans, in the associated water columns, on the ocean bottom or beneath the ocean bottom.
- There are complex regulatory structures that manage oil and gas operations in Canada's offshore areas; however, these federal regulatory instruments do not regulate engineering practitioners. Requiring these practitioners to be licensed by provincial and territorial engineering regulators would ensure the same level of public protection for offshore engineering as on land.
- There are emerging areas of offshore engineering such as wind generation and mining of the ocean bottom that require proactively establishing professional expectations to ensure public safety.
- ~~It is in the public interest that there be better regulation from the federal government for engineering activities that are performed outside of Canada's provincial or territorial governments' jurisdiction, but within federal government control.~~

The ~~issue~~challenge(s)

~~Engineers from all disciplines are integral to the exploration, discovery, testing, extraction, and distribution of offshore oil and gas. Engineering in Canada is a regulated profession, and engineers are licensed professionals, holding a license to practise engineering with one of Canada's 12 provincial or territorial engineering regulators. The self-regulation of the engineering profession in Canada ensures that engineers are held to high professional and ethical standards, and that they practise in the public interest. It is imperative to have strengthened regulatory mechanisms to manage operations in Canada's offshore areas for activities performed outside of Canada's provincial and territorial government's jurisdiction that are within the federal governments control.~~

~~With the overwhelming scientific evidence that the world's climate is changing~~As the climate warms, the practice of offshore engineering work ~~is expected to~~may expand into locations previously inaccessible to such activities, such as the Arctic Ocean, and ~~. The practice of offshore engineering~~ is likely to increase ~~to~~ in the Atlantic and Pacific, off Canada's shores. ~~Canada.~~ Offshore activities may also increasingly include offshore wind generation and mining, both on the ocean bottom and underneath the ocean bottom.[9] The United Nations Convention on the Law of the Sea (UNCLOS) ~~is the international agreement that defines the rights and responsibilities of nations with respect to their use of the world's oceans. UNCLOS~~ establishes guidelines to protect the natural environment, as well as providing guidelines for businesses around the management of marine natural resources. Article 81 of UNCLOS states that the coastal State has exclusive rights to authorize and regulate drilling on the continental shelf for all purposes~~Article 81 of UNCLOS delineates that the coastal State shall have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes~~.[10]

Federally, Canada has a set of four principal Acts that govern oil and gas activities offshore .~~; in addition to the previous National Energy Board (NEB), which regulates the frontier lands and offshore areas not covered by provincial or federal management agreements. NEB responsibilities included the regulation of oil and gas explorations, development and production, enhancing worker safety, and protecting the natural environment. The Government of Canada is proposing to create the Canadian Energy Regulator (CER), a new, modern, and world-class federal energy regulator with the required independence and the proper accountability to oversee a strong, safe, and sustainable Canadian energy sector in the 21st century.~~ In 2019, the Government of Canada established the new Canada Energy Regulator (CER) under Natural Resources Canada, to replace the previous National Energy Board. While the CER is responsible for regulating the interprovincial and international energy sector, including offshore oil and gas activities that are not under provincial or territorial regulation, it does not regulate offshore engineering work specifically.

~~These are complex regulatory structures that manage offshore oil and gas operations in Canada's offshore areas; however, these international and federal regulatory instruments do not provide for the regulation of engineering work that is done offshore, as the~~Even though provincial and territorial engineering Acts ~~do~~ provide for the regulation of~~for~~ engineering work conducted on land, there are currently no provincial, territorial or federal provisions for the regulation of engineering work done offshore. Currently, infrastructure to be used offshore that is designed and built outside of Canadian limits is not subject to Canadian engineering regulation. Yet, infrastructure built or designed in Canada ~~are~~ is subject to provincial or territorial engineering ~~jurisdiction~~regulation.

~~There must be better regulation from the federal government for activities that are performed offshore including outside of Canada's 12-mile territorial limit (i.e. in international waters). However, the provincial and territorial engineering regulators believe that it is in the public interest that all infrastructure designed, built, or used within Canada—including in its offshore areas—must~~

[9] World Resources Institute. What We Know about Deep Sea Mining. Retrieved March 11, 2024 from: https://www.wri.org/insights/deep-sea-mining-explained.

[10] United Nations Convention on the Law of the Sea. Retrieved August 31, 2018, from: http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf.

~~be regulated in a manner similar to that which is currently done by the provincial or territorial engineering regulators for engineering work done on land. Regulation minimizes the risks to workers and the environment and ensures that these activities are conducted by engineers who are held to high professional and ethical standards that require them to work in the public interest.~~

What the provincial and territorial regulators have done

In Canada, engineering is a regulated profession, and individuals who call themselves an engineer, a P.Eng., or use a similar title (suggesting they are qualified to practi~~c~~see engineering) must hold a P.Eng. licenc~~s~~e with one of Canada's 12 provincial or territorial engineering regulators. The self-regulation of the engineering profession in Canada ensures that engineers adhere to high professional and ethical standards and practi~~c~~see in the public interest. It is imperative to have strengthened regulatory mechanisms to manage operations in Canada's offshore areas for activities performed outside of Canada's provincial or territorial government's jurisdiction that are within the federal government's control.

The provincial and territorial engineering regulators believe that it is in the public interest that all infrastructure designed, built, or used within Canada—including in its offshore areas—must be regulated in a manner similar to that which the provincial or territorial engineering regulators currently do for engineering work done on land. Regulation minimizes the risks to workers and the environment and ensures that these activities are conducted by engineers who are held to high professional and ethical standards that require them to work in the public interest.

Professional Engineers and Geoscientists Newfoundland & Labrador (PEGNL) published Practice Guidelines for Authenticating Professional Documents in ~~June 2016~~2021, which included guidance on the authentication of offshore drilling documents. It outlines that professional documents prepared in Canada for use outside of the 12-mile Canadian territorial limit (i.e. in international waters), shall be authenticated by a professional licen~~c~~se holder licensed in the Canadian jurisdiction where the engineering or geosciences practice was carried out. ~~For example, if a device is designed by an engineering group or firm in Newfoundland and Labrador for use in offshore oil development in international waters, then the design must be authenticated by a professional licence holder, and permit holder if applicable, using PEGNL stamps.~~

If the device is designed outside of the province for use in international waters but is brought to the province for assembly, for incorporation into another assembly, or for testing or commissioning, the documents detailing the assembly, incorporation, testing, or commissioning shall be authenticated by a PEGNL professional licen~~c~~se holder, and permit holder if applicable, using PEGNL stamps.

PEGNL authentication is required when a device intended for use outside of the 12-mile Canadian territorial limit meets any one of the following conditions:

1. Designed in Newfoundland and Labrador
2. Built in Newfoundland and Labrador
3. Integrated into or installed in an assembly in Newfoundland and Labrador
4. Tested or commissioned in Newfoundland and Labrador

If the device intended for use in international waters does not meet any of these conditions, unfortunately no PEGNL authentication is required. There are significant engineering activities that do not meet these criteria and therefore are not subject to engineering regulation.

Additionally, Engineers and Geoscientists BC has developed Professional Practice Guidelines on Developing Climate Change-Resilient Designs for Highway Infrastructure in BC that have been widely referenced and adopted by other authorities having jurisdiction. These Practice Guidelines are applicable to the development of offshore infrastructure such as offshore wind farms and coastal infrastructure such as ports and coastal defense structures.

Recommendations to the federal government

~~Public safety is threatened, and environmental, social, and economic impacts are not adequately addressed~~ ~~W~~when engineers are not directly involved in the design, review, implementation, and maintenance of projects that require the application of engineering practices, the project places public safety at risk and fails to address environmental, social and economic impacts. Where engineering work is being performed, it is in the public interest that an ~~licensed~~ engineer be involved. Legislation that speaks to engineering work, regardless of whether it is under federal, territorial or provincial jurisdiction, should require the involvement of qualified engineers. These engineers must be licensed through a provincial or territorial engineering regulator.

The federal government must continue to engage with engineering regulators as they consider better regulation for activities with engineering components performed outside of provincial or territorial jurisdiction but within federal control. The ~~P~~public interest is best served when such engineering matters are regulated to at least the standard to which they are regulated on land.

~~In all legislation impacting the offshore where engineering matters form a significant component, the federal government should include a requirement that engineers be licensed with a provincial or territorial coastal government who has direct interest in off-shore engineering work.~~à

How Engineers Canada will contribute:

Engineers Canada will:

1. Actively identify opportunities to incorporate provincial and territorial regulations within offshore engineering legislation and regulations where such involvement would be in the public interest.
2. Work collaboratively with provincial and territorial regulators to promote the regulation of offshore engineering and make practice guidelines accessible.
3. Identify opportunities to work with the federal government to inform regulation for activities performed outside of provincial or territorial jurisdiction but within federal control.

~~Demand-side legislation~~The Role of Engineers in Protecting and Advancing the Public Interest

The engineering profession's position:

- The public interest demands that engineers take responsibility for any necessary engineering work. Where engineering work is performed, industry and governments must involve engineers who are licensed in the jurisdiction where they work. ~~Where engineering work is being performed, it is in the public interest that a professional engineer be involved.~~
- Legislation that speaks to engineering work, regardless of whether it is a federal or provincial statute, should require the involvement of an ~~professional~~ engineer.
- Where engineering considerations are relevant to public policy, governments must ensure the involvement of engineers.
- Engineers are often called upon to assist the government in addressing societal issues. Governments should ensure that engineers are fully consulted where necessary to the public interest.
- Incorporating ~~professional~~ engineers' accountability into federal and provincial legislation and regulation weaves the engineering regulatory process into the fabric of government and keeps Canadians safe.

The challenge(s)~~issue~~

A wide range of legislation requires the application of engineering principles. In these cases, public safety requires the involvement of engineers. ~~Public safety is at risk when professional engineers are not involved in the development and implementation of a wide range of legislation and regulations that require the application of engineering principles.~~ Although governments often seek the involvement of engineers ~~is often sought~~ in the development of legislation and regulations governing infrastructure, transportation, resource development, and manufacturing, there are other areas where the need for the involvement of engineers is ~~less apparent, but~~ no less critical, such as ~~research, te~~research and development, ~~chnology~~emerging technologies like artificial intelligence, and other changes to policies that impact the built environment.~~and innovation.~~

How Engineers Canada has contributed

Engineers Canada ~~knows~~ recognizes the importance of actively engaging with the federal government regarding public consultations on ~~legislation~~ acts and regulations that impact the work that engineers do, and address activities that could involve engineering work. We have built strong and open working relationships with the federal government, both with parliamentarians and senior federal officials.

Engineers Canada's efforts have raised awareness within the federal government about the importance of engineering licensure as a requirement for engineering work. Routinely, Engineers Canada engages with federal ministers, especially through pre-budget consultations, to ensure that budgetary measures that require engineering work utilize demand-side measures to ensure the professional involvement of engineers. Because of these efforts, Engineers Canada, with our

members, have proposed successful changes to existing legislation, and influenced the trajectory of future legislation.

For example, Engineers Canada and Professional Engineers of Ontario proposed changes to ~~the~~ Section 11 of the *Railway Safety Act*[11] that would continue to protect public safety by requiring a professional engineer to approve all engineering work. As a result, the section was changed and now reads "All Engineering work relating to railway works must be approved by a professional engineer."

The federal government has also introduced several new Investment Tax Credits (ITCs) aimed at accelerating Canada's net-zero goals by catalyzing private investment in clean technologies. These ITCs are targeted at five critical areas of investment: clean technology, carbon capture utilization and storage, clean hydrogen, clean electricity, and clean technology manufacturing.

These tax credits will fund projects that require significant engineering work. While the government has not provided implementation details for all five ITCs, the ITCs for carbon capture utilization and storage as well as for clean hydrogen require front-end engineering design studies conducted by qualified engineers.[12] Similarly, the federal government has also introduced a tax credit for critical minerals exploration, which requires up-front engineering and geoscience assessments conducted by a qualified engineer or geoscientist, thereby ensuring that licensed professionals take personal responsibility for these assessments.[13]

Engineers Canada will continue to build working relationships with key federal departments, both with elected officials and senior public servants, to provide an experienced regulatory perspective on federal legislation and policy.

Recommendations to the federal government

The federal government should:

- Ensure that any legislation or regulations that refer to engineering work require the involvement of an ~~professional~~ engineer, licensed in accordance with provincial and territorial engineering acts.
- Ensure that federal public policy initiatives aimed at accelerating Canada's net-zero transition require firms to utilize the expertise of engineers in the design and implementation of projects.
- Adopt a government wide policy to ensure that engineering work ~~be~~ is performed by individuals who are licensed to do so, including engineers in the federal public service, thereby encouraging compliance with ~~professional~~ engineering regulatory legislation.

[11] Government of Canada (2019). "Railway Safety Act." Retrieved August 12, 2019 from: https://laws-lois.justice.gc.ca/eng/acts/r-4.2/.

[12] Government of Canada. Bil C-69: An Act to implement certain provisions of the budget tabled in Parliament on April 16, 2024. (https://www.parl.ca/DocumentViewer/en/44-1/bill/C-69/first-reading)

[13] Government of Canada. Bill C-32: An Act to implement certain provisions of the fall economic statement tabled in Parliament on November 3, 2022 and certain provisions of the budget tabled in Parliament on April 7, 2022. (https://www.parl.ca/DocumentViewer/en/44-1/bill/C-32/royal-assent)

How Engineers Canada will contribute

Engineers Canada will continue to:

- Actively identify opportunities to provide input from engineers within federal legislation and regulations where such involvement would be in the public interest.
- ~~Request~~ Urge that decision-makers ensure that demand-side legislation retains explicit references to engineers and engineering in the interest of public safety across Canada.
- Monitor the federal government's agenda, legislative initiatives, and proposed regulations, and maintain positive working relationships with federal officials, to bring recommendations on demand-side legislation to the attention of government.

In addition, provincial and territorial regulators will continue to:

- Hold all ~~professional~~ engineers publicly accountable for their work.
- Work collaboratively with provincial and local governments to ensure engineering professionals are appropriately referenced in demand-side legislation.

~~National and International Labour Mobility~~Labour Mobility in Canada

The engineering profession's position

- Global demand for engineering services requires the establishment and regulation of internationally recognized qualification and practice standards. Within Canada, most professional regulation is under provincial and territorial jurisdiction, which includes recognition of foreign credentials or their equivalent and facilitating interprovincial mobility.
- To ensure public safety and welfare, as well as to protect the environment and prevent serious economic damage, international and Canadian engineering graduates must meet the same high standards to practisee in and across Canada. It is through becoming licensed with a provincial or territorial engineering regulatory body that there is assurance that all engineers meet this standard, regardless of the country where they obtained their degree.
- It is also through the provincial and territorial regulatory bodies that international and Canadian engineers can be held accountable for their practice in Canada, thereby addressing the public interest in such matters.
- ~~To protect public safety and welfare, international and Canadian engineering graduates must meet the same high standards to practice in and across Canada. It is through becoming licensed with a provincial or territorial engineering regulatory body that there is assurance that international engineers meet this standard. It is also through the provincial and territorial regulatory bodies that international engineers can be held accountable for their practice in or for Canada, thereby addressing the public interest in such matters.~~
- ~~Engineers Canada considers the national and international mobility of:~~
    - ~~Engineers licensed in Canada to practice across jurisdictions.~~
    - ~~International engineering graduates coming to Canada, by assessing the substantial equivalency of international engineering credentials.~~
    - ~~International engineering professionals coming to Canada, by developing Mutual Recognition Agreements that recognize their qualifications towards engineering licensure in Canada.~~
    - ~~Canadian-based professional engineers practising abroad, by entering into bilateral Mutual Recognition Agreements and multinational agreements that recognize Canadian engineering credentials~~

The challenge(s)

Despite the increasing globalization of markets, it can be hard to move goods and services across provincial and territorial boundaries within Canada, damaging Canada's economic productivity and harming our global competitiveness. For this reason, governments of all stripes have sought to reduce barriers to interprovincial trade in addition to reducing barriers ~~than~~ across international borders. ~~, damaging Canada's domestic markets and its competitive position in the global market.~~

An important aspect of international and interprovincial trade is the mobility of labour. In regulated professions, labour mobility can be especially challenging. Canadian-based engineers must be able to practise in other countries, while meeting the host country's requirements. Engineers in

Canada who are working on international projects are still accountable to their provincial or territorial regulator. Internationally trained engineers who wish to practise in Canada must also meet the provincial and territorial requirements for licensure, which have been established to protect the public. The regulators have identified several areas where harmonization of requirements for licensure is important to address existing challenges related to conflicting requirements for licensure, and have committed to ongoing collaboration to enhance labour mobility. ~~To address the problem of existing barriers to inter-provincial and territorial labour mobility, the federal, provincial, and territorial governments came together in 1994 by calling on regulated professions across Canada to eliminate restrictions on labour mobility by April 2009. Currently, licensed engineers are able to practice with ease across Canada.~~

~~Canada remains one of the world's top exporters of engineering services. Canadian-based engineers must be able to practise in other countries, while meeting the host country's requirements. Engineers in Canada who are working on international projects are still accountable to their provincial or territorial regulator.~~

~~Similarly, internationally trained engineers who wish to practise in Canada must meet the provincial and territorial requirements for licensure, which have been established to ensure that public safety and welfare are protected.~~

~~The continuing expansion of international trade in engineering services may result in changes to public policy that exert pressure on regulatory authorities to simplify standards for engineering licensure, thereby resulting in a possible risk to public safety.~~

How Engineers Canada has contributed

Engineers Canada has developed a public guideline on admission to the practice of engineering in Canada, which outlines current admission requirements throughout the country and fosters harmonization of admission practices.[14] While each regulator is mandated to develop its own admissions practices, Engineers Canada has outlined that applicants for engineering licensure:

1. Must be academically qualified;
2. Have demonstrated acceptable work experience, including an understanding of local practices and conditions;
3. Be able to communicate in the language of their jurisdiction of practice;
4. Be of good character;
5. Understand and apply the laws and ethical principles that affect the practice of engineering both directly and indirectly, and the professional standards to which they are held accountable.

These admission requirements apply generally to all applicants for licensure, whether they were trained in Canada or in another country. Engineers Canada has provided national leadership on

[14] Engineers Canada. 2017. Public guideline on admission to the practice of engineering in Canada. (https://engineerscanada.ca/guidelines-and-papers/public-guideline-on-admission-to-the-practice-of-engineering-in-canada#background)

behalf of the regulators to advance labour mobility in Canada, by providing guidance and coordination for engineers licenseed in Canada who wish to practisee across jurisdictions, by assessing the substantial equivalency of international engineering credentials, by supporting the development of Mutual Recognition Agreements that recognize substantial qualifications toward engineering licensure, and by entering into bilateral and multilateral Mutual Recognition Agreements that recognize Canadian engineering credentials for practice in other countries.

In May 2024, the 12 provincial and territorial engineering regulators signed a historic National Statement of Collaboration which reflects regulators' renewed commitment to proactively work together to address national and international barriers to mobility for engineers and engineering entities, further advancing public safety and increasing regulatory efficiency. This agreement will serve as a basis for collective efforts to improve labour mobility for engineers in Canada.

~~Nationally~~Pan-Canadian Mobility

The Canadian Free Trade Agreement (CFTA) governs certain aspects of labour mobility in Canada, and generally, with some exceptions, requires that workers in regulated professions be able to work anywhere in Canada without undergoing additional training, assessments or evaluations.[15]

Within Canada, t~~T~~he engineering profession has been repeatedly recognized by federal officials as having one of the most advanced internal mobility regimes ~~in Canada~~. In 1999, Engineers Canada and the engineering regulators signed the *Inter-Association Mobility Agreement*. This agreement, which was renewed in 2004, allows engineers who are licensed in one jurisdiction in Canada to register in another province or territory with minimal administrative requirements and processing delays. ~~The final decision for licensing remains at the discretion of the issuing regulator.~~

~~(CFTA) entered into effect on July 1, 2017, replacing the *Agreement on Internal Trade* (AIT). The CFTA incorporates all AIT elements requiring that workers in regulated professions be able to work anywhere in Canada without undergoing additional training, assessments, or examinations. More specifically, Chapter 7 of the CFTA titled "Labour Mobility," seeks to eliminate or reduce measures to restrict or impair mobility, provided that the requirements are similar to those imposed in another jurisdiction or region in Canada. As a result of these initiatives, the vast majority of individuals secure a licence efficiently and with little delay as a result of mobility agreements already in place.~~

~~The provincial and territorial regulatory bodies regularly review those engineers living in other countries who are practicing within provincial or territories jurisdictions to ensure that only those who meet the appropriate standards are assessed through licensure and constitute to do so as licensed professionals. Not only are they assessed for licensure as they come to~~

[15] Canadian Free Trade Agreement (CFTA). Chapter 7: Labour Mobility. (https://www.cfta-alec.ca/labour-mobility/)

~~*practice in Canada, ongoing licensure ensures that they can be held accountable for their ongoing practice.*~~

~~*National recognition: Senate Standing Committee on Banking, Trade, and Commerce*~~

~~*The Senate Standing Committee on Banking, Trade and Commerce released a report in June 2016, entitled, "Tear Down These Walls: Dismantling Canada's Internal Trade Barriers," documenting its study on internal barriers to inter-provincial and inter-territorial labour mobility. Engineers Canada provided verbal testimony during the study regarding inter-provincial and inter-territorial labour mobility for the engineering profession. The Standing Committee's report highlighted the ongoing efforts of the engineering regulators in Canada as a leading example of work being conducted to improve labour mobility across the country.*~~

~~*Internationally*~~ *International Mobility*

~~The provincial and territorial regulatory bodies regularly review those engineers living in other countries who are practicing within provincial or territories jurisdictions to ensure that only those who meet the appropriate standards are assessed through licensure and constitute to do so as licensed professionals. Not only are they assessed for licensure as they come to practice in Canada, ongoing licensure ensures that they can be held accountable for their ongoing practice.~~
Engineers Canada is also the signatory to two international agreements:

- The Asia-Pacific Economic Cooperation Engineers Agreement for the member economies of APEC.
- The International Professional Engineers Agreement (IPEA), which includes the United Kingdom, Ireland, India, and South Africa, as well as many of the Asia-Pacific Economic Co-operation (APEC) Agreement countries.

These two multinational agreements recognize the "substantial equivalence" in professional competence in engineering and are intended to help streamline the review of professional credentials for engineers wishing to ~~practise~~practisee in another member country.

Each signatory maintains a national register listing those engineers who meet the international standard of professional competence. Most national registers are online and can be readily searched. As part of this commitment, Engineers Canada maintains the Engineers Canada Mobility Register. By joining the mobility register, Canadian engineers may use the APEC or IPEA designations to signify that they have met the academic and competence standards and are prepared to conduct engineering practices internationally. The registration process comes at no cost to the engineer and uses a self-assessment process whereby Canadian engineers declare that they meet and will maintain the qualifications to be on the provincial and territorial registers. To maintain their status on the register, members must annually declare that they continue to meet these qualifications.

Educational agreements that improve international mobility by recognizing the substantial equivalency of engineering education programs in each signatory country are also in place.

Engineers Canada is a signatory of the Washington Accord, which facilitates the expeditious review of academic credentials.

The provincial and territorial regulatory bodies routinely review the qualifications of internationally trained engineers~~those engineers living in other countries~~ who are practis~~e~~ing within provincial or territorial~~es~~ jurisdictions to ensure that only those who meet the appropriate standards for licensure are granted registration. ~~se are assessed through licensure and constitute to do so as licensed professionals. Not only are they assessed for licensure as they come to practice in Canada, ongoing licensure ensures that they can be held accountable for their ongoing practice.~~

Recommendations to the federal government

To reduce, and to ultimately eliminate, barriers to labour mobility, the federal government should consult and collaborate with regulated professions to achieve the desired outcomes for professional mobility in Canada and the international community.

The federal government should:

- Consult regulators when making national and international policy and legislative decisions that could affect the regulators' ability to protect the public interest and ensure public safety.
- Work with regulators and provincial and territorial governments to identify ways to strengthen the Canadian Free Trade Agreement.
- Support the maintenance of high standards already in place while enhancing inter-provincial and inter-territorial mobility.
- Facilitate the development of appropriate agreements towards the mobility of qualified engineering professionals between jurisdictions nationally and internationally.
- Ensure that those international engineers who come to Canada to practi se~~e~~ engineering in or for the federal government or in federally regulated industries meet Canadian standards through becoming licensed with a provincial or territorial engineering regulatory authority.
- Consult with Engineers Canada when considering new free trade agreements that impact the mobility of engineers.

How Engineers Canada will contribute

Engineers Canada and the engineering regulators play a leadership role in addressing several challenging mobility issues by actively engaging government officials. We have fully supported agreements that enhance maximum mobility between provinces and territories and with the international community.

Engineers Canada will:

- Work together to ~~to~~ address national and international barriers to mobility for engineers and engineering entities as part of our commitment to national collaboration.
- Continue to work with government officials to monitor the regional and bilateral trade discussions undertaken by the Government of Canada.

- Continue to monitor changes and additions made to national and international free trade agreements.
- Continue to ~~monitor~~ follow the ongoing negotiations for a global agreement on trade in services within the World Trade Organization.
- Be available to provide expertise and to facilitate consultation to ensure that Canada's engineering education, standards of practice, and admission qualifications are maintained.
- Facilitate the development of appropriate agreements towards the mobility of qualified engineering professionals nationally and internationally.

Artificial Intelligence Engineering Technology in Autonomous and Connected Vehicles

The engineering profession's position

- The development of artificial intelligence (AI) engineering technology in autonomous and connected vehicles requires the unbiased, evidence-based advice and professional expertise of engineers in Canada.
- Maximizing the potential benefits of AI engineering technology with respect to autonomous and connected vehicles while minimizing the associated safety and economic risks requires the development of standards and regulatory processes by engineers and the contribution of engineers' knowledge toward the use of AI tools for problem-solving and technical solutions.
- Incorporating engineers' accountability into federal legislation and regulations surrounding AI engineering technology in autonomous and connected vehicles keeps the engineering regulatory process woven into the fabric of government and keeps Canadian consumers safe.

The challenge(s)

AI, autonomous capacities, and connected engineering technology have received extensive attention in recent years. While the accepted definition of AI continues to evolve, one way of understanding AI is that it is a developing engineering technology that uses algorithms and unique software to emulate and, in some cases, improve on human thoughts and performances such as learning, problem-solving, perceiving, and reasoning.[1] The application of AI is widespread throughout Canadian society, and has become a transformative element within many industries, including transportation. For vehicle engineering, AI is the backbone that integrates and enables vehicle connectivity (e.g., vehicle-to-vehicle, vehicle-to-infrastructure, and vehicle-to-everything communication), autonomous driving, and mobility solutions, such as mobility-as-a-service.

Autonomous capacities and semi-autonomous features have been rapidly built into vehicle features, specifically in the form of lane guidance, collision avoidance, assisted-braking capacities, and cruise control. Rapid connectivity has, in the short-term, enabled vehicles to interact with one another and with surrounding public infrastructure. As the technology evolves further and societal expectations for safety and efficiency increase, demand for

[1] Davenport. T., and Ronanki, R. (2018). "Artificial Intelligence for the Real World." Retrieved July 10, 2018 from: https://hbr.org/2018/01/artificial-intelligence-for-the-real-world.

vehicles with autonomous, "self-driving" capabilities will increase in Canada. The development of AI includes the work of multi-disciplinary teams that include various engineering disciplines such as software, electrical, and mechanical, among others.

Although there are several identified benefits to autonomous and connected vehicle engineering technology in Canada, including fewer collisions, improved energy use, and reduced GHG emissions, the technology carries uncertainty and raises concerns for public safety. A significant concern surrounding this engineering technology is the issue of accountability and liability; novel legal, moral, and ethical questions regarding the use of this technology routinely emerge, leading to a need for caution in the adoption and deployment of the technology. Consumers across Canada remain hesitant to use unproven technology on a regular basis and remain concerned about the possible unreliability of autonomous vehicle technology when faced with an emergency. This concern has demonstrated validity given the performance of early autonomous systems in motor vehicles and related accidents.[2] However, expanding the use of AI technology in autonomous and connected vehicles may also help law enforcement efforts to reduce car theft, and could enhance the confidence that drivers have in the safety and security of their vehicles. Engineering expertise will be essential in designing autonomous anti-theft systems. Engineers Canada believes that it is vital for the federal government to be proactive in its approach to upholding public safety, the natural environment, and the economy. With the increasing demand for AI and autonomous vehicle technology in Canada, there has, and will continue to be, a rising demand for engineers working in this industry to ensure that public safety is upheld. The development and implementation of AI within autonomous vehicles in Canada will require the unbiased, strategic, and professional expertise of the engineering profession. This includes ensuring that only engineers who are licensed in the Canadian jurisdiction where their engineering work is taking place are performing engineering work.

For example, aerospace engineers hold significant expertise in the integration of human operators with semi-automated systems. Accidents that occurred during the early implementation of such systems helped to identify problems with the human-machine interface. Similar problems with semi-autonomous vehicles are beginning to appear, and are likely to be even more pronounced as highly and fully automated vehicles become available for purchase in the coming years. The engineering profession is well-placed to make use of this past learning to mitigate risks as the technology is integrated with motor vehicles. Engineers will be especially well-placed to provide solutions for the feasibility of using autonomous, connected and electric vehicles in winter weather conditions. Road conditions vary widely with weather and are more dangerous in Canadian winters than in US jurisdictions where autonomous and connected vehicles have been widely adopted. This challenge is especially

[2] For example, refer to National Transportation Safety Board (2019) investigations: *HWY16FH018, HWY19FH008, HWY18FH011*. Retrieved June 4, 2019 from: https://www.ntsb.gov/investigations/AccidentReports/Pages/HWY19FH008-preliminary-report.aspx

pronounced when discussing the integration of AI technologies into vehicles that were designed and manufactured in another country.

How Engineers Canada has contributed

To uphold public safety, while upholding public confidence and accountability in AI in autonomous vehicles, engineers must be consulted and included in major federal decisions that require engineering work. Further, they must be an integral part of the development and administration of such standards.

Engineers must be involved in the design, building and integration of the necessary parts of autonomous vehicles as well as conceptualizing transportation and public infrastructure to support autonomous and connected vehicle technology

Engineers Canada, in collaboration with the provincial and territorial engineering regulators, developed a white paper to provide information and guidance to the engineering regulators regarding the discipline of software engineering. It is intended to help enforcement and compliance officials identify software engineering practice that should be regulated—where it is reasonable to expect that an engineer is taking professional responsibility for the work. Software associated with AI in autonomous and connected vehicles meets the conditions of an engineering work as there is a reasonable expectation that failure or inappropriate functioning of the system would result in harm to life, health, property, economic interests, the public welfare, or the environment.[3] Engineers Canada also developed a National Position Statement that outlines the conditions under which a piece of software can be considered an engineering work, and how such work should be regulated.[4] AI deployed for autonomous and connected vehicles will often meet these conditions, particularly in the case of fully automated or connected vehicles in the future. .

Engineers Canada will continue to work with key federal departments to ensure that the value and benefit of having engineers involved in the development of AI in autonomous vehicles is recognized by Canadians.

Recommendations to the federal government

While it is positive that the federal government has taken multiple measures to support the expansion of automated and connected vehicle technologies in Canada, its current efforts have been focused on setting the conditions for their testing and use.[5] While these guidelines

[3] Engineers Canada (2023). "Engineers Canada Paper on Professional Practice in Software Engineering." Retrieved February 27, 2024, from: https://engineerscanada.ca/guidelines-and-papers/engineers-canada-paper-on-professional-practice-in-software-engineering

[4] Engineers Canada (2022). "Professional Practice in Software Engineering." Retrieved February 29, 2024 from https://engineerscanada.ca/sites/default/files/public-policy/professional-practice-software-engineering-en.pdf

[5] Government of Canada (2021). "Guidelines for Testing Automated Driving Systems in Canada." Retrieved February 29, 2024 from https://tc.canada.ca/sites/default/files/2021-09/automated_driving_system_report_en.pdf

encourage organizations to engage with municipal governments, they make no reference to the need for the involvement of engineers accountable to a provincial or territorial engineering regulator. In Canada, engineers and regulators should play a bigger, if not pivotal, role in addressing the risks. Their expertise and accountability are vital for unbiased, evidence-based decision-making, ensuring that AI technology for use in autonomous and connected vehicles is developed and utilized in the best interest of the public.

Standards and regulatory processes developed by engineers can contribute to addressing safety concerns and realizing the benefit of this technology. In Canada, engineers should play a pivotal role in addressing the various risks associated with the integration of AI in autonomous and connected vehicles. These risks can be regrouped in a few fields where engineers should be involved, such as:

- Safety and reliability, including validation and testing.
- Cybersecurity vulnerabilities, including AI systems as targets and preventing malicious use.
- Ethical and bias concerns to reduce unfair or unsafe outcomes driven by algorithmic bias.
- Legal and liability issues, including helping to determine responsibilities when complex incidents occur, and clarifying regulatory challenges.
- Human-machine interaction, including transitioning control back to a human driver during emergencies and designing for potential driver complacency.

The federal government must continue to recognize that the Canadian public is best served when the jurisdiction of the provincial and territorial engineering regulators is recognized and respected. The engineering regulators and the profession as a whole are ready and willing to work collaboratively with the federal government.

The federal government should:

- Ensure that federal programs supporting the development of AI for autonomous and connected vehicles require the involvement and consultation of an engineer in accordance with provincial and territorial engineering acts.
- Continue working with industry and regulators to develop standards and frameworks on the development, maintenance, and use of autonomous and connected vehicle technology in Canada.

How Engineers Canada will contribute

Engineers Canada will:

- Work with key federal departments to ensure that the value and benefit of having engineers involved in the development and utilization of AI in autonomous vehicles is recognized by Canadians.

- Work with engineers in the public service to promote the value of appropriate professional involvement in the development and utilization of AI in autonomous vehicles.
- Monitor the government agenda, legislative initiatives, and proposed regulations to bring recommendations on AI in autonomous vehicles to the attention of government.
- Promote the awareness of engineering matters associated with AI technology in general and as it applies to autonomous and connected vehicles as part of engineers fulfilling their annual professional development and competency activities.

Regulation of Coastal, Ocean and Related Subsurface Engineering

The engineering profession's position

- The engineering profession believes that public interest is best served when all engineering work, including in offshore areas, is regulated by the provincial or territorial regulator where the equipment is deployed..
- In instances where engineering facilities are utilized or engineering activities are conducted outside of provincial or territorial jurisdiction but under federal government jurisdiction, it is in the public interest that federal regulations provide the same level of assurance as those that provincial and territorial engineering regulators enforce, including the requirement that engineers working on coastal, ocean and subsurface projects be licensed. Such instances include engineering facilities or activities either on the oceans, in the associated water columns, on the ocean bottom or beneath the ocean bottom.
- There are complex regulatory structures that manage oil and gas operations in Canada's offshore areas; however, these federal regulatory instruments do not regulate engineering practitioners. Requiring these practitioners to be licensed by provincial and territorial engineering regulators would ensure the same level of public protection for offshore engineering as on land.
- There are emerging areas of offshore engineering such as wind generation and mining of the ocean bottom that require proactively establishing professional expectations to ensure public safety.

The challenge(s)

As the climate warms, the practice of offshore engineering work may expand into locations previously inaccessible to such activities, such as the Arctic Ocean, and is likely to increase in the Atlantic and Pacific, off Canada's shores. Offshore activities may also increasingly include offshore wind generation and mining, both on the ocean bottom and underneath the ocean bottom.[6] The United Nations Convention on the Law of the Sea (UNCLOS) establishes guidelines to protect the natural environment, as well as providing guidelines for businesses around the management of marine natural resources. Article 81 of UNCLOS states that the coastal State has exclusive rights to authorize and regulate drilling on the continental shelf for all purposes.[7]

[6] World Resources Institute. What We Know about Deep Sea Mining. Retrieved March 11, 2024 from: https://www.wri.org/insights/deep-sea-mining-explained.
[7] United Nations Convention on the Law of the Sea. Retrieved August 31, 2018, from: http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf.

Federally, Canada has a set of four principal Acts that govern oil and gas activities offshore. In 2019, the Government of Canada established the new Canada Energy Regulator (CER) under Natural Resources Canada, to replace the previous National Energy Board. While the CER is responsible for regulating the interprovincial and international energy sector, including offshore oil and gas activities that are not under provincial or territorial regulation, it does not regulate offshore engineering work specifically.

Even though provincial and territorial engineering Acts provide for the regulation of engineering work conducted on land, there are currently no provincial, territorial or federal provisions for the regulation of engineering work done offshore. Currently, infrastructure to be used offshore that is designed and built outside of Canadian limits is not subject to Canadian engineering regulation. Yet, infrastructure built or designed in Canada is subject to provincial or territorial engineering regulation.

What the provincial and territorial regulators have done

In Canada, engineering is a regulated profession, and individuals who call themselves an engineer, a P.Eng., or use a similar title (suggesting they are qualified to practise engineering) must hold a P.Eng. licence with one of Canada's 12 provincial or territorial engineering regulators. The self-regulation of the engineering profession in Canada ensures that engineers adhere to high professional and ethical standards and practise in the public interest. It is imperative to have strengthened regulatory mechanisms to manage operations in Canada's offshore areas for activities performed outside of Canada's provincial or territorial government's jurisdiction that are within the federal government's control.

The provincial and territorial engineering regulators believe that it is in the public interest that all infrastructure designed, built, or used within Canada—including in its offshore areas—must be regulated in a manner similar to that which the provincial or territorial engineering regulators currently do for engineering work done on land. Regulation minimizes the risks to workers and the environment and ensures that these activities are conducted by engineers who are held to high professional and ethical standards that require them to work in the public interest.

Professional Engineers and Geoscientists Newfoundland & Labrador (PEGNL) published Practice Guidelines for Authenticating Professional Documents in 2021, which included guidance on the authentication of offshore drilling documents. It outlines that professional documents prepared in Canada for use outside of the 12-mile Canadian territorial limit (i.e. in international waters), shall be authenticated by a professional license holder licensed in the Canadian jurisdiction where the engineering or geosciences practice was carried out. If the device is designed outside of the province for use in international waters but is brought to the province for assembly, for incorporation into another assembly, or for testing or commissioning, the documents detailing the assembly, incorporation, testing, or commissioning shall be authenticated by a PEGNL professional licence holder, and permit holder if applicable, using PEGNL stamps.

PEGNL authentication is required when a device intended for use outside of the 12-mile Canadian territorial limit meets any one of the following conditions:

1. Designed in Newfoundland and Labrador
2. Built in Newfoundland and Labrador
3. Integrated into or installed in an assembly in Newfoundland and Labrador
4. Tested or commissioned in Newfoundland and Labrador

If the device intended for use in international waters does not meet any of these conditions, unfortunately no PEGNL authentication is required. There are significant engineering activities that do not meet these criteria and therefore are not subject to engineering regulation.

Additionally, Engineers and Geoscientists BC has developed Professional Practice Guidelines on Developing Climate Change-Resilient Designs for Highway Infrastructure in BC that have been widely referenced and adopted by other authorities having jurisdiction. These Practice Guidelines are applicable to the development of offshore infrastructure such as offshore wind farms and coastal infrastructure such as ports and coastal defense structures.

Recommendations to the federal government

When engineers are not directly involved in the design, review, implementation, and maintenance of projects that require the application of engineering practices, the project places public safety at risk and fails to address environmental, social and economic impacts. Where engineering work is being performed, it is in the public interest that an engineer be involved. Legislation that speaks to engineering work, regardless of whether it is under federal, territorial or provincial jurisdiction, should require the involvement of qualified engineers. These engineers must be licensed through a provincial or territorial engineering regulator.

The federal government must continue to engage with engineering regulators as they consider better regulation for activities with engineering components performed outside of provincial or territorial jurisdiction but within federal control. The public interest is best served when such engineering matters are regulated to at least the standard to which they are regulated on land.

How Engineers Canada will contribute:

Engineers Canada will:

1. Actively identify opportunities to incorporate provincial and territorial regulations within offshore engineering legislation and regulations where such involvement would be in the public interest.
2. Work collaboratively with provincial and territorial regulators to promote the regulation of offshore engineering and make practice guidelines accessible.
3. Identify opportunities to work with the federal government to inform regulation for activities performed outside of provincial or territorial jurisdiction but within federal control.

The Role of Engineers in Protecting and Advancing the Public Interest

The engineering profession's position:

- The public interest demands that engineers take responsibility for any necessary engineering work. Where engineering work is performed, industry and governments must involve engineers who are licensed in the jurisdiction where they work.
- Legislation that speaks to engineering work, regardless of whether it is a federal or provincial statute, should require the involvement of an engineer.
- Where engineering considerations are relevant to public policy, governments must ensure the involvement of engineers.
- Engineers are often called upon to assist the government in addressing societal issues. Governments should ensure that engineers are fully consulted where necessary to the public interest.
- Incorporating engineers' accountability into federal and provincial legislation and regulation weaves the engineering regulatory process into the fabric of government and keeps Canadians safe.

The challenge(s)

A wide range of legislation requires the application of engineering principles. In these cases, public safety requires the involvement of engineers. Although governments often seek the involvement of engineers in the development of legislation and regulations governing infrastructure, transportation, resource development, and manufacturing, there are other areas where the need for the involvement of engineers is no less critical, such as research and development, emerging technologies like artificial intelligence, and other changes to policies that impact the built environment.

How Engineers Canada has contributed

Engineers Canada recognizes the importance of actively engaging with the federal government regarding public consultations on acts and regulations that impact the work that engineers do, and address activities that could involve engineering work. We have built strong and open working relationships with the federal government, both with parliamentarians and senior federal officials.

Engineers Canada's efforts have raised awareness within the federal government about the importance of engineering licensure as a requirement for engineering work. Routinely, Engineers Canada engages with federal ministers, especially through pre-budget consultations, to ensure that budgetary measures that require engineering work utilize demand-side measures to ensure the professional involvement of engineers. Because of these efforts, Engineers Canada, with our members, have proposed successful changes to existing legislation, and influenced the trajectory of future legislation.

For example, Engineers Canada and Professional Engineers of Ontario proposed changes to Section 11 of the *Railway Safety Act*[8] that would continue to protect public safety by requiring a professional engineer to approve all engineering work. As a result, the section was changed and now reads "All Engineering work relating to railway works must be approved by a professional engineer."

The federal government has also introduced several new Investment Tax Credits (ITCs) aimed at accelerating Canada's net-zero goals by catalyzing private investment in clean technologies. These ITCs are targeted at five critical areas of investment: clean technology, carbon capture utilization and storage, clean hydrogen, clean electricity, and clean technology manufacturing.

These tax credits will fund projects that require significant engineering work. While the government has not provided implementation details for all five ITCs, the ITCs for carbon capture utilization and storage as well as for clean hydrogen require front-end engineering design studies conducted by qualified engineers.[9] Similarly, the federal government has also introduced a tax credit for critical minerals exploration, which requires up-front engineering and geoscience assessments conducted by a qualified engineer or geoscientist, thereby ensuring that licensed professionals take personal responsibility for these assessments.[10]

Engineers Canada will continue to build working relationships with key federal departments, both with elected officials and senior public servants, to provide an experienced regulatory perspective on federal legislation and policy.

Recommendations to the federal government

The federal government should:

- Ensure that any legislation or regulations that refer to engineering work require the involvement of an engineer, licensed in accordance with provincial and territorial engineering acts.
- Ensure that federal public policy initiatives aimed at accelerating Canada's net-zero transition require firms to utilize the expertise of engineers in the design and implementation of projects.
- Adopt a government wide policy to ensure that engineering work is performed by individuals who are licensed to do so, including engineers in the federal public service, thereby encouraging compliance with engineering regulatory legislation.

How Engineers Canada will contribute

Engineers Canada will continue to:

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[8] Government of Canada (2019). "Railway Safety Act." Retrieved August 12, 2019 from: https://laws-lois.justice.gc.ca/eng/acts/r-4.2/.

[9] Government of Canada. Bil C-69: An Act to implement certain provisions of the budget tabled in Parliament on April 16, 2024. (https://www.parl.ca/DocumentViewer/en/44-1/bill/C-69/first-reading)

[10] Government of Canada. Bill C-32: An Act to implement certain provisions of the fall economic statement tabled in Parliament on November 3, 2022 and certain provisions of the budget tabled in Parliament on April 7, 2022. (https://www.parl.ca/DocumentViewer/en/44-1/bill/C-32/royal-assent)

- Actively identify opportunities to provide input from engineers within federal legislation and regulations where such involvement would be in the public interest.
- Urge that decision-makers ensure that demand-side legislation retains explicit references to engineers and engineering in the interest of public safety across Canada.
- Monitor the federal government's agenda, legislative initiatives, and proposed regulations, and maintain positive working relationships with federal officials, to bring recommendations on demand-side legislation to the attention of government.

In addition, provincial and territorial regulators will continue to:

- Hold all engineers publicly accountable for their work.
- Work collaboratively with provincial and local governments to ensure engineering professionals are appropriately referenced in demand-side legislation.

Labour Mobility in Canada

The engineering profession's position

- Global demand for engineering services requires the establishment and regulation of internationally recognized qualification and practice standards. Within Canada, most professional regulation is under provincial and territorial jurisdiction, which includes recognition of foreign credentials or their equivalent and facilitating interprovincial mobility.
- To ensure public safety and welfare, as well as to protect the environment and prevent serious economic damage, international and Canadian engineering graduates must meet the same high standards to practise in and across Canada. It is through becoming licensed with a provincial or territorial engineering regulatory body that there is assurance that all engineers meet this standard, regardless of the country where they obtained their degree.
- It is also through the provincial and territorial regulatory bodies that international and Canadian engineers can be held accountable for their practice in Canada, thereby addressing the public interest in such matters.

The challenge(s)

Despite the increasing globalization of markets, it can be hard to move goods and services across provincial and territorial boundaries within Canada, damaging Canada's economic productivity and harming our global competitiveness. For this reason, governments of all stripes have sought to reduce barriers to interprovincial trade in addition to reducing barriers across international borders.

An important aspect of international and interprovincial trade is the mobility of labour. In regulated professions, labour mobility can be especially challenging. Canadian-based engineers must be able to practise in other countries, while meeting the host country's requirements. Engineers in Canada who are working on international projects are still accountable to their provincial or territorial regulator. Internationally trained engineers who wish to practise in Canada must also meet the provincial and territorial requirements for licensure, which have been established to protect the public. The regulators have identified several areas where harmonization of requirements for licensure is important to address existing challenges related to conflicting requirements for licensure, and have committed to ongoing collaboration to enhance labour mobility.

How Engineers Canada has contributed

Engineers Canada has developed a public guideline on admission to the practice of engineering in Canada, which outlines current admission requirements throughout the country

and fosters harmonization of admission practices.[11] While each regulator is mandated to develop its own admissions practices, Engineers Canada has outlined that applicants for engineering licensure:

1. Must be academically qualified;
2. Have demonstrated acceptable work experience, including an understanding of local practices and conditions;
3. Be able to communicate in the language of their jurisdiction of practice;
4. Be of good character;
5. Understand and apply the laws and ethical principles that affect the practice of engineering both directly and indirectly, and the professional standards to which they are held accountable.

These admission requirements apply generally to all applicants for licensure, whether they were trained in Canada or in another country. Engineers Canada has provided national leadership on behalf of the regulators to advance labour mobility in Canada, by providing guidance and coordination for engineers licensed in Canada who wish to practise across jurisdictions, by assessing the substantial equivalency of international engineering credentials, by supporting the development of Mutual Recognition Agreements that recognize substantial qualifications toward engineering licensure, and by entering into bilateral and multilateral Mutual Recognition Agreements that recognize Canadian engineering credentials for practice in other countries.

In May 2024, the 12 provincial and territorial engineering regulators signed a historic National Statement of Collaboration which reflects regulators' renewed commitment to proactively work together to address national and international barriers to mobility for engineers and engineering entities, further advancing public safety and increasing regulatory efficiency. This agreement will serve as a basis for collective efforts to improve labour mobility for engineers in Canada.

Pan-Canadian Mobility

The Canadian Free Trade Agreement (CFTA) governs certain aspects of labour mobility in Canada, and generally, with some exceptions, requires that workers in regulated professions be able to work anywhere in Canada without undergoing additional training, assessments or evaluations.[12]

Within Canada, the engineering profession has been repeatedly recognized by federal officials as having one of the most advanced internal mobility regimes. In 1999, Engineers Canada and

[11] Engineers Canada. 2017. Public guideline on admission to the practice of engineering in Canada. (https://engineerscanada.ca/guidelines-and-papers/public-guideline-on-admission-to-the-practice-of-engineering-in-canada#background)

[12] Canadian Free Trade Agreement (CFTA). Chapter 7: Labour Mobility. (https://www.cfta-alec.ca/labour-mobility/)

the engineering regulators signed the *Inter-Association Mobility Agreement*. This agreement, which was renewed in 2004, allows engineers who are licensed in one jurisdiction in Canada to register in another province or territory with minimal administrative requirements and processing delays.

International Mobility

Engineers Canada is also the signatory to two international agreements:

- The Asia-Pacific Economic Cooperation Engineers Agreement for the member economies of APEC.
- The International Professional Engineers Agreement (IPEA), which includes the United Kingdom, Ireland, India, and South Africa, as well as many of the Asia-Pacific Economic Co-operation (APEC) Agreement countries.

These two multinational agreements recognize the "substantial equivalence" in professional competence in engineering and are intended to help streamline the review of professional credentials for engineers wishing to practise in another member country.

Each signatory maintains a national register listing those engineers who meet the international standard of professional competence. Most national registers are online and can be readily searched. As part of this commitment, Engineers Canada maintains the Engineers Canada Mobility Register. By joining the mobility register, Canadian engineers may use the APEC or IPEA designations to signify that they have met the academic and competence standards and are prepared to conduct engineering practices internationally. The registration process comes at no cost to the engineer and uses a self-assessment process whereby Canadian engineers declare that they meet and will maintain the qualifications to be on the provincial and territorial registers. To maintain their status on the register, members must annually declare that they continue to meet these qualifications.

Educational agreements that improve international mobility by recognizing the substantial equivalency of engineering education programs in each signatory country are also in place. Engineers Canada is a signatory of the Washington Accord, which facilitates the expeditious review of academic credentials.

The provincial and territorial regulatory bodies routinely review the qualifications of internationally trained engineers who are practising within provincial or territorial jurisdictions to ensure that only those who meet the appropriate standards for licensure are granted registration.

Recommendations to the federal government

To reduce, and to ultimately eliminate, barriers to labour mobility, the federal government should consult and collaborate with regulated professions to achieve the desired outcomes for professional mobility in Canada and the international community.

The federal government should:

- Consult regulators when making national and international policy and legislative decisions that could affect the regulators' ability to protect the public interest and ensure public safety.
- Work with regulators and provincial and territorial governments to identify ways to strengthen the Canadian Free Trade Agreement.
- Support the maintenance of high standards already in place while enhancing inter-provincial and inter-territorial mobility.
- Facilitate the development of appropriate agreements towards the mobility of qualified engineering professionals between jurisdictions nationally and internationally.
- Ensure that those international engineers who come to Canada to practise engineering in or for the federal government or in federally regulated industries meet Canadian standards through becoming licensed with a provincial or territorial engineering regulatory authority.
- Consult with Engineers Canada when considering new free trade agreements that impact the mobility of engineers.

How Engineers Canada will contribute

Engineers Canada and the engineering regulators play a leadership role in addressing several challenging mobility issues by actively engaging government officials. We have fully supported agreements that enhance maximum mobility between provinces and territories and with the international community.

Engineers Canada will:

- Work together to address national and international barriers to mobility for engineers and engineering entities as part of our commitment to national collaboration.
- Continue to work with government officials to monitor the regional and bilateral trade discussions undertaken by the Government of Canada.
- Continue to monitor changes and additions made to national and international free trade agreements.
- Continue to follow the ongoing negotiations for a global agreement on trade in services within the World Trade Organization.
- Be available to provide expertise and to facilitate consultation to ensure that Canada's engineering education, standards of practice, and admission qualifications are maintained.
- Facilitate the development of appropriate agreements towards the mobility of qualified engineering professionals nationally and internationally.

BRIEFING NOTE: For information

Legislative compliance certificate	3.5
Purpose:	To report the status of Engineers Canada's legislative and corporate compliance efforts
Link to the Strategic Plan/Purposes:	Board responsibility: Hold itself and its Direct Reports accountable
Link to Corporate Risk Profile:	Corporate Compliance
Prepared by:	Joan Bard Miller, Manager, Governance and Board Services Light Go, Corporate Counsel and Corporate Secretary
Presented by:	Philip Rizcallah, Chief Executive Officer

Background

- Engineers Canada has an obligation to comply with various statutory and common law obligations and requirements.
- The legislative compliance certificate (the "compliance certificate") provides Board members with a line of sight that the organization is complying with its corporate and legislative duties.
- The compliance certificate was first presented to the Board for information at its meeting in September 2022, with the understanding that it would be presented on an annual basis.

Status update

- The compliance certificate is current as of August 7, 2024. It was prepared by senior staff on behalf of the CEO.

Next steps

- The Board will continue to receive the compliance certificate annually.

Appendix

- **Appendix 1:** Legislative compliance certificate 2024.

LEGISLATIVE COMPLIANCE CERTIFICATE

TO: Engineers Canada's Board of Directors

RE: Legislative Compliance Certificate

I, Phillip Rizcallah, in my capacity as Chief Executive Officer of Engineers Canada, certify and confirm that to the best of my knowledge and belief after making all reasonable enquiries, Engineers Canada is in compliance with all conditions, obligations, restrictions and requirements with respect to:

1. Canada Not-for-profit Corporations Act - Canada

Federal law that supersedes the previous legislation for incorporation of not-for-profit corporations in Canada. The *Canada Not-for-profit Corporations Act* provides a comprehensive framework for not-for-profit corporations similar to that provided to for-profit corporations under the *Canada Business Corporations Act*. Engineers Canada ensures compliance with the Act by maintaining its books and records, making corporate filings, and ensuring compliance with statutory duties of directors, among other things.

Verified by: Light Go, General Counsel and Corporate Secretary

2. Canada's Anti-Spam Legislation ("CASL") - Canada

Federal law intended to help protect consumers and businesses from misuse of digital technology, including spam and electronic threats. CASL applies to all commercial electronic messages (an electronic message that is sent to an electronic address and encourages participation in a commercial activity) that organizations may send within, from or to Canada. All Canadian organizations must comply with CASL, including non-profits, charities, and libraries.

Engineers Canada ensures compliance, in part, through adherence to its operational policy, *LEG-4 CASL Policy,* and by providing legal advice and training to staff on CASL requirements. Engineers Canada provided its latest all-staff training session in November 2021 and provides training to new staff as part of the onboarding process.

Verified by: Light Go, General Counsel and Corporate Secretary

3. Personal Information Protection and Electronic Documents Act ("PIPEDA") - Canada

Federal privacy law that governs how organizations collect, use and disclose personal information (information about an identifiable individual) in the course of a commercial activity. Private-sector organizations in Canada who engage in activities that are commercial in nature are required to follow PIPEDA. Organizations in Alberta, British Columbia, and Quebec are generally exempt from PIPEDA as they are subject to substantially similar provincial private-sector privacy laws. Given that Engineers Canada does not engage in commercial activities, the organization is generally exempt from PIPEDA. However, similar to many other organizations who handle personal information, Engineers Canada has elected to follow the ten (10) fair information principles outlined in PIPEDA and has developed two (2) operational policies, *LEG-1 Privacy Policy and LEG-1.0 Employee Privacy Policy* which give effect to these principles. To further ensure compliance with its commitments to maintain privacy, Engineers Canada also conducts an annual privacy audit with all members of staff and provides privacy

training as part of new staff orientations. The most recent privacy audit and all-staff training was completed in the summer of 2022.

Verified by: Light Go, General Counsel and Corporate Secretary

4. Trademarks Act - Canada

Federal law providing for the protection of trademarks and against unfair competition. The Registrar of Trademarks keeps a register of trademarks under the *Trademarks Act,* which protects the trademark from unauthorized use. Engineers Canada complies with the Act by ensuring that its trademarks are registrable and compliant.

Verified by: Light Go, General Counsel and Corporate Secretary

5. Employment Standards Act (the "ESA") - Ontario

Provincial law that sets out minimum standards for employees working in Ontario. These standards include minimum requirements for employment, provisions to assist employees with family responsibilities, flexibility in work arrangements and mechanisms for compliance and enforcement. The ESA applies to most employees and employers in Ontario.

Engineers Canada ensures compliance with the ESA by ensuring that employment contracts are periodically reviewed and updated in accordance with legislation and common law. This includes verifying that the following meet legislative requirements:

- Leave entitlements (*HR-6 Leave Policy* and *HR-7 Short-Term Disability Policy*);
- Pregnancy and parental leave (*HR-15 Pregnancy and Parental Leave Policy and Procedure*);
- Overtime pay (*HR-12 Overtime Policy and Procedure*);
- Compensation (*HR-3 Compensation Policy and Procedure*); and
- Termination notice periods (included in offer letters).

Verified by: Light Go, General Counsel and Corporate Secretary, and Nicole Proulx, Director, Human Resources

6. Human Rights Code (the "HR Code") - Ontario

Provincial code that prohibits actions which discriminate against people based on a protected ground (i.e. age, citizenship, ethnic origin, disability, gender, and sexual orientation) in a protected social area (accommodation, contracts, employment, goods, services and facilities, and membership in unions, trade or professional associations). Under the HR Code, employers must ensure that they are providing all employees with equal treatment.

Engineers Canada ensures compliance with the HR Code through its policies and practices, including, but not limited to:

- Ensuring and promoting equal treatment;
- Providing appropriate workplace accommodations for employees with disabilities (*HR-17 Disability Accommodation Policy*);
- Accommodating employees who need to take sick leave or who cannot work due to a short-term disability (*HR-7 Short-Term Disability*);

- Ensuring that working conditions are fair, dignified, safe, organized, clear, and meet legislative requirements (*Board policy 5.2, Treatment of staff and volunteers*); and,
- Ensuring that the General Counsel and the Director, Human Resources are consulted in every instance of Human Rights matters in the workplace.

Verified by: Light Go, General Counsel and Corporate Secretary and Nicole Proulx, Director, Human Resources

7. Occupational Health and Safety Act (the "OHSA") - Ontario

Provincial legislation that protects workers from health and safety hazards in the workplace. The OHSA sets out duties for employers and rights for employees in addition to establishing procedures for dealing with workplace hazards. The OHSA applies to most employers and workers in Ontario, including Engineers Canada.

Engineers Canada complies with the OHSA by having a Joint Health and Safety Committee who handles health and safety issues, notably by conducting regular workplace inspections. In addition to this, all employees are required to complete mandated Health and Safety training to ensure compliance with safety standards. Operational policies (*HR-1 Occupational Health, Safety and Wellness Policy and Procedure*, *HR-2 Workplace Violence and Harassment Policy, and HR-14 Right to Disconnect Policy*) have also been put into place. Board policy 5.2 *Treatment of staff and volunteers* also ensures that working conditions are fair, dignified, safe, organized, clear and meet legislative requirements.

Verified by: Nicole Proulx, Director, Human Resources

8. Accessibility for Ontarians with Disabilities Act (the "AODA") - Ontario

Provincial law that sets out accessibility standards which seek to promote accessibility for persons with disabilities with respect to goods, services, facilities, accommodation, employment, buildings, structures, and premises. Enacted under the AODA is the *Accessibility Standards for Customer Service, O. Reg. 429/07,* which imposes additional requirements for customer service.

The AODA applies to all private and public sector organizations in Ontario when providing goods and services to the public. Engineers Canada ensures compliance with the AODA, in part, through its adherence to its operational policy, *HR-5 Accessibility for Ontarians with Disabilities Policy and Procedure*, including providing AODA training to all staff, and by filing an accessibility compliance report (a "compliance report") with the Ontario Ministry for Seniors and Accessibility every three (3) years. Engineers Canada last filed a compliance report on or about October 18, 2023.

Verified by: Nicole Proulx, Director, Human Resources

9. Pay Equity Act - Ontario

Provincial law intended to ensure that employers pay women and men equal pay for work of equal value. All employers in Ontario, except for private sector employers with less than ten (10) employees, must comply with the *Pay Equity Act*. Engineers Canada reflects its commitment to pay equity through a standardized pay scale, which is visible to all employees in *HR-3 Compensation Policy and Procedure*.

Verified by: Nicole Proulx, Director, Human Resources

10. Employment Equity Act - Canada

Federal law intended to achieve equity in the workplace so that no person shall be denied employment opportunities or benefits for reasons unrelated to ability. Employers are required to identify and eliminate employment barriers against persons in designated groups. For the purpose of implementing employment equity, Engineers Canada and other employers are required to collect information and analyze their workforce to determine the degree of underrepresentation of persons in designated groups and prepare an employment equity plan that specifies the positive policies and practices that are instituted for the hiring, training, promotion, and retention of persons in designated groups and for the making of reasonable accommodations for those persons.

Engineers Canada complies with the *Employment Equity Act* through various policies and practices, including, but not limited to:

- Ensuring pay equity through a standardized compensation scheme (*HR-3 Compensation Policy and Procedure*) (see also the *Pay Equity Act)*;
- Providing employees with appropriate workplace accommodations (*HR-5 Accessibility for Ontarians with Disabilities Policy, and HR-17 Disability Accommodation Policy*);
- Providing employees with generous pregnancy and parental leave (*HR-15 Pregnancy and Parental Leave Policy and Procedure*); and
- Through a commitment to programs that promote diversity in the engineering profession, such as by facilitating the work of the 30 by 30 Champions network.

Verified by: Nicole Proulx, Director, Human Resources

11. Working for Workers Act – Ontario

Provincial legislation that creates a new requirement under the ESA for employers with 25 or more employees to have a written policy about electronic monitoring and another policy setting out employees' right to disconnect from work. Engineers Canada values privacy and is committed to transparency with regard to the instances where electronic monitoring of its employees may arise through *IT-3 Electronic Monitoring Policy*. Engineers Canada complies with the *Working for Workers Act* by having in place *HR-14 Right to Disconnect Policy*, which establishes that employees may disconnect from engaging in work-related communications, including emails, telephone calls, video calls or the sending or reviewing of other messages, so as to be free from the performance of work when they are off-duty (i.e. on a leave of absence, on vacation, or outside their normal working hours) without fear of reprisal.

Verified by: Light Go, General Counsel and Corporate Secretary and Nicole Proulx, Director, Human Resources

12. Income Tax Act - Canada

Federal income tax act. All organizations, including Engineers Canada, must remit and deduct required amounts due under the Act in respect of all salaries, fees, commissions, and retiring allowances.

Verified by Derek Menard, Director, Finance

13. Canada Pension Plan - Canada

Federal law that established a contributory system of earnings-related old-age, disability, and survivor insurance benefits in Canada. Under the Act, employers and employees must make contributions to the Canada Pension Plan. Engineers Canada complies with the Act by making the required contributions.

Verified by Derek Menard, Director, Finance

14. Excise Tax Act - Canada

Federal fiscal statute that imposes excise taxes in connection with the sale or production for sale of certain goods. All organizations, including Engineers Canada, are required to report, pay, collect and remit the required net goods and services tax.

Verified by Derek Menard, Director, Finance

15. Employer Health Tax Act - Ontario

Provincial statute which created the *Employment Health Tax*, a payroll tax that was conceived to fund the Ontario Health Insurance Program. All employers in Ontario, including Engineers Canada, are required to remit the *Employment Health Tax* to the Ontario Ministry of Finance. Unlike with the Canada Pension Plan and Employment Insurance, there is no employee paid portion. Engineers Canada is in compliance with the *Employer Health Tax Act* by ensuring the appropriate tax is paid.

Verified by Derek Menard, Director, Finance

16. Pension Benefits Act - Ontario

Provincial law that regulates every pension plan that is provided for persons employed in Ontario. Engineers Canada ensures compliance with the *Pension Benefits Act* in the administration of its pension plan, notably including respecting provisions for registration, record-keeping and membership eligibility.

Verified by Derek Menard, Director, Finance

17. Employment Insurance Act - Canada

Federal statute which created the Employment Insurance program, a program which provides temporary income to unemployed individuals to support them while they look for new employment or upgrade their skills in addition to providing benefits to workers who require time off due to certain circumstances. All employers in Canada, including Engineers Canada, are required to deduct and remit employer and employee Employment Insurance contributions.

Verified by Derek Menard, Director, Finance

18. Criminal Code (the "Code") - Canada

Federal code of laws defining the type of conduct that may constitute a criminal offence. The Code also indicates which forms of punishment are suitable for each offence and the procedure that needs to be followed for prosecution. The Code extends to organizations and contains provisions for sentencing and punishing organizations who are found liable of crimes. Engineers Canada complies with the Code by refraining from engaging in any activities which are considered criminal and through adherence to the following operational policies:

- *FI-7 Fraud Policy*, which puts controls into place to prevent, detect and respond to all instances of fraud;
- *HR-2 Workplace Violence, Discrimination and Harassment Policy*, which puts measures into place to prevent the occurrence of workplace violence, discrimination, and harassment; and
- *Board policy 7.10 Whistleblowing* provides a means for staff, volunteer, or Director to raise concerns about unethical, dangerous, or illegal activities.

Verified by: Light Go, General Counsel and Corporate Secretary, Nicole Proulx, Director, Human Resources, and Derek Menard, Director, Finance

19. Competition Act - Canada

Federal law which governs most business conduct in Canada in order to maintain and encourage competition to promote the efficiency and adaptability of the Canadian economy. The *Competition Act* contains criminal and civil provisions to prevent anti-competitive practices in the Canadian marketplace. All organizations who do business in Canada, including Engineers Canada, must comply with the *Competition Act*. Engineers Canada takes care to ensure it does not contravene section 52 of the *Competition Act*, which contemplates false and/or misleading representations, disclosure requirements, and deceptive marketing practices. In particular, Engineers Canada's legal team works with program managers to ensure the development and design of contests conform to the *Competition Act's* requirements and drafts all contest materials so that the number and value of the contest prizes and any available information that materially affects the chances of winning are appropriately disclosed.

Verified by: Light Go, General Counsel and Corporate Secretary

20. Lobbying Act - Canada

Federal law that regulates the activities of lobbyists in Canada. The *Lobbying Act* imposes certain disclosure requirements and provides the Commissioner of Lobbying with the mandate to establish and maintain a Registry of Lobbyists. The *Lobbying Act* also contains certain offence provisions and sanctions for non-compliance. Paid lobbyists, including consultant lobbyists and in-house lobbyists, who communicate with the federal government on behalf of a third-party are required to comply with the *Lobbying Act*.

Engineers Canada falls under the *Lobbying Act's* "in-house organization lobbying" requirements. The Chief Executive Officer is responsible for filing returns by the 15th of every month, which must indicate any oral and arranged communications made between paid employees or volunteers and designated public office holders ("DPOHs"). Engineers Canada has three (3) staff members listed on the Registry, with the CEO named the responsible officer, but not named as a registered lobbyist for the duration of his five-year restriction under the *Act*. The individuals registered as lobbyists state that

communicating with DPOHs is a significant duty for them (established at 20% or more of overall duties). Staff members who are not on the Registry have been notified verbally not to discuss Engineers Canada's views with DPOHs. While individuals who are restricted from lobbying under the Act may not engage in any communication with a DPOH that is oral and arranged, they may participate in internal deliberations regarding strategies and tactics for engagement officials. Additionally, when volunteers participate in in-person advocacy days, they are trained on how to engage with DPOHs.

Verified by: Nathan Durham, Manager, Public Affairs

Dated August 7, 2024

Per:

Phillip Rizcallah P. Eng
Chief Executive Officer

BRIEFING NOTE: For information

Advocacy Report: June 2023 – June 2024	3.6
Purpose:	To provide a summary of Engineer Canada's annual federal advocacy efforts from June 2023 to June 2024
Link to the strategic plan	Core Purpose 5: Advocating to the federal government
Link to Corporate Risk Profile:	Diminished national collaboration (Board risk) Reputation (operational risk)
Prepared by:	Nathan Durham, Manager, Public Affairs Jeanette Southwood, Vice President, Corporate Affairs and Strategic Partnerships
Presented by:	Philip Rizcallah, Chief Executive Officer

Background

- Each year, Engineers Canada provides a summary report on its advocacy efforts with the federal government.
- This report serves as a concise overview for the Regulators and the Board of Engineers Canada on significant efforts and accomplishments from June 2023 to June 2024 in advocating for the engineering regulators and the profession.

Status update

- The report is included for information

Next steps

- Advocacy efforts will continue, as planned.

Appendices

- **Appendix 1:** Advocacy Report: June 2023 – June 2024

Core Purpose 5: Advocating to the federal government

Advocacy Report: June 2023 – June 2024

Engineers Canada's Public Affairs and Government Relations team plays a crucial role in representing the voice of engineering regulators and the profession in engagements with the federal government. Our advocacy efforts revolve around addressing regulatory issues and advocating for the interests of the engineering regulators and the engineering profession. Throughout the 2023-2024 parliamentary sessions, our team focused on cultivating strong relationships with influential Ministers and their staff, opposition critics and their staff, and federal departments connected to our priority policy areas. Here are some notable highlights of our advocacy work during this period.

Submissions to public consultations and resulting outcomes

The Public Affairs and Government Relations team submitted ten written submissions to federal public consultations on issues of concern for the engineering regulators and the engineering profession. These included:

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submissions to government consultations impacting the engineering profession

1. Engineers Canada's submission to the House of Commons Standing Committee on Public Safety and National Security regarding Bill C-26
2. Engineers Canada's comments to Natural Resources Canada regarding proposed amendments to Bill C-49
3. Engineers Canada's submission to the House of Commons Standing Committee on Finance in Advance of the 2024 Budget
4. Engineers Canada's comments on the Conservative Party of Canada's proposed "Blue Seal" National Professional Testing Standard proposal
5. Engineers Canada's comments to Premier Danielle Smith regarding Bill 7
6. Engineers Canada's comments regarding the Insurance Auditing and Assurance Standards Board's Proposed ISSA 5000, General Requirements for Sustainability Assurance Engagements
7. Engineers Canada's Pre-Budget letter to the Minister of Finance in Advance of the 2024 Budget
8. Engineers Canada's comments to the Minister of Housing, Infrastructure and Communities on the Housing Design Catalogue proposal
9. Engineers Canada's Comments on the 2026 CUSMA Review for the Standing Committee on International Trade
10. Engineers Canada's Comments on the General Review of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership

Notably, as a result of these efforts, Engineers Canada's recommendations were incorporated into the Government of Canada's Budget 2024: Fairness for Every Generation. Additionally, Engineers Canada was recognized as a vital contributor in the areas of Equity, Diversity, and Inclusion, Indigenous Peoples, Transition to Net Zero, and Federal Institutions and Public Service, in the final report of the Standing Committee on Finance to Parliament.

National Position Statements

National Position Statements (NPSs) represent the consensus positions of the provincial and territorial engineering regulatory bodies of Engineers Canada on issues that impact the engineering profession and the broader public interest. The following NPSs were reviewed and approved by the regulators and the Board as per the Public Affairs Advisory Committee's 2023-2024 workplan:

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new or updated National Position Statements

New National Position Statements:

- Licensing requirements for engineering positions in the federal public service
- Building a Safer Future: Engineers' Contributions to Developing and Revising Building Codes
- Engineers' Contributions to Inclusive Design: Creating Accessible Environments

Updated National Position Statements:

- Infrastructure
- Infrastructure on Indigenous Reserves and in Remote Indigenous Communities
- Immigration and Foreign Qualifications Recognition and Confirmation of Academic Requirements (merged)
- Indigenous People's Access to Post-Secondary Engineering Education

Engaging and educating parliamentarians and senior federal officials

In 2023-2024, the Public Affairs and Government Relations team actively engaged in nine meetings with political staff to federal ministers, parliamentarians, and senior federal officials. These meetings were instrumental in advocating and discussing matters relevant to engineering regulators and the profession.

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meetings with parliamentarians and officials

- Micah Richardson, Senior Policy Advisor to the Minister of Housing, Infrastructure and Communities
- Matthew Paisley, Senior Policy Advisor to the Minister of Housing, Infrastructure and Communities
    - Topic: Federal housing and infrastructure funding, the housing design catalogue, and resilient infrastructure.
- Jan Gorski, Senior Policy Advisor to the Minister of Energy and Natural Resources
    - Topic: Energy transition policies and programs
- Victor Kandasamy, Senior Policy Advisor to the Minister of Public Services and Procurement
    - Topic: Official Languages Act requirements in the federal procurement process
- Santina Vendra, Associate Director, Policy Modernization and Guidance Directorate, Public Services and Procurement Canada

- Clive Kamichaitis, Chief Engineer, Civil Engineering, Public Services and Procurement Canada
    - Topic: Official Languages Act requirements in the federal procurement process
- David Murray, Director of Policy to the Leader of the Official Opposition
- Mark Emes, Policy Advisor to the Leader of the Official Opposition
    - Topic: Foreign credential recognition and the federal Conservative "blue seal" proposal
- Aaron Fowler, Chief Negotiator for the Canada-Indonesia Comprehensive Economic Partnership Agreement
- Jay Allen, Chief Negotiator, Canada-Indonesia Free Trade Agreement
    - Topic: Recent rounds of bilateral and multilateral trade negotiations impacting cross-border trade in services.
- Doug Forsyth, Chief Negotiator, Canada-Ecuador Free Trade Agreement
    - Topic: Recent rounds of bilateral trade negotiations impacting trade in services.
- Christine Roy, Deputy Director, Cross-border Trade in Services, Global Affairs Canada
    - Topic: Professionals services and regulatory considerations in ongoing international trade negotiations
- Sylvain Brazeau, Director, Mobility, Credential Recognition and Integration, Employment and Social Development Canada
- Jean-Robert Misangumukini, Senior Policy Analyst, Mobility, Credential Recognition and Integration, Employment and Social Development Canada
    - Government-funded partnerships to improve credential recognition in targeted sectors and industries

Involvement in federal councils, delegations, working groups, and committees

Engineers Canada's Public Affairs and Government Relations team actively participates on federal councils, delegations, working groups, and committees providing valuable advice, policy insights, and input to the federal government across various federal and federal/industry working groups. These include being:

- A standing member of Public Service and Procurement Canada's Federal/Industry Real Property Advisory Council (FIRPAC)
- A standing member of Natural Resources Canada's Climate Change Adaptation Skills Working Group
- A standing member of the Government of Canada's Advisory Council for Harmonized Construction Codes
- A standing member of the Circular Built Environment Roadmap Initiative: Strategic Advisory Committee

Media activity

As part of our advocacy efforts in 2024, the Public Affairs and Government Relations team issued a media release announcing the joint letter Engineers Canada and the regulators sent to Alberta Premier Danielle Smith expressing opposition to her government's decision to change the province's Engineering and Geoscience Professions Act to enable technology companies and workers to use the title "software engineer" without holding a professional engineering licence. Our efforts were covered in local and national media outlets.

Engineers Canada also issued a public statement commenting on the importance of recognizing the role of engineers in the building process as the federal government enact measures to streamline housing construction.

In addition to this direct media activity, Gerard McDonald and Jeanette Southwood published an op-ed in *The Hill Times*, which is widely read on Parliament Hill. The op-ed, "It's time to get serious about climate adaptation" urges the federal government to direct more resources toward preparing Canada's infrastructure for extreme weather events driven by climate change.

BRIEFING NOTE: For information

2025 draft budget	4.2
Purpose:	To provide the 2025 draft budget and 2027 PCAF recommendation to the Board for information and discussion
Link to the Strategic Plan/Purposes:	Board responsibility: Provide financial oversight by ensuring that the annual budget is developed to align with the organization's values and guide decision making.
Link to the Corporate Risk Profile:	Financial compliance (operational risk) Long-term financial viability (strategic risk)
Prepared by:	Derek Menard, Chief Financial Officer Joan Bard Miller, Manager, Governance and Board Services
Presented by:	Marlo Rose, Chair of the FAR Committee

Background

- In December, the Board is responsible for:
  - approving Engineers Canada's 2025 budget, and
  - recommending to the Members the amount of the per capita assessment fee (PCAF) that will be in effect as of January 2027 (Bylaw, article 7).
- The budget and PCAF are presented in advance of those decisions for the Board to consider:
  - How the budget aligns with Engineers Canada's priorities and strategic plan,
  - Whether there is anything unclear or of concern in the budget,
  - Whether the Members are likely to approve the proposed PCAF for 2027, and
  - If any revisions should be made to the final budget.
- Staff prepare the budget in keeping with the following:
  - Engineers Canada Strategic Plan 2025-2029
  - Engineers Canada's 10 core purposes
  - Necessary improvements to tools, technology, and infrastructure.
  - The budget envelope assumptions approved by the Finance, Audit, and Risk (FAR) Committee at its meeting on June 17, 2024.
- The draft budget and PCAF proposal are presented with three-year projections for revenues and expenses, and reserve balances. Reserve targets are set out in Board policy 7.12, *Net Assets*.
- Significant projects, including strategic priorities, are funded from unrestricted reserves, which have a target level of no less than $1 million.
- In recent years, the Board approved operating budget deficits, significant funding on projects included in the 2022-2024 strategic plan, and a decrease in the PCAF in 2024 and 2025 to draw down on the unrestricted reserves which had grown far beyond their $1 million minimum target level.
- Growth in the unrestricted reserves was largely due to the acquisition of $2 million per year in the affinity funds that would have gone to Professional Engineers Ontario (PEO) had it joined the

TDI affinity program. 2024 was the first full year in which PEO availed itself of the $2 million in affinity funds, thus materially impacting the future rate at which the unrestricted reserves will grow.

- Beginning with the 2024 budget, efforts were made to reduce operating expenses with the goal of achieving a balanced operating budget in 2026.
- 2025-2029 Strategic Plan project spending is projected to be between $1-$1.5 million per year.

Status update

Draft budget

- The 2025 draft budget includes $11.3 million in revenue and $12.7 million in expenses, resulting in a deficit of $1.3 million. A total of $1.1 million in spending relates to strategic projects, which are to be funded by drawing down unrestricted reserves. With significant projects excluded, the operating budget is in a $215,913 deficit position.
- Revenue is expected to increase by $768 thousand (7 per cent) compared to 2024 mainly due to the increase in TDI national program sponsorship revenue.
- Staff have reduced operational expenses by $100 thousand (net of the one-time $100 thousand CEO recruitment fees in 2024), which aligns with guidance included in the budget envelope assumptions approved by the FAR Committee.
- Based on the projected revenue and expenses and expectations that the operating expenses will increase 3% from 2026 to 2029, it is proposed that the Board recommend to the Members that the 2027 per capita assessment fee be increased to $11.00 per registrant.

FAR Committee review

- The FAR Committee was supportive of the draft budget and scenario #1 for the PCAF which proposes that the 2027 fee be set at $11 per registrant (see table 6).
- The committee noted the:
  - Importance of returning to a balanced operating budget given the change in annual contributions to the unrestricted reserves (see Background section),
  - Need to replenish the reserves to support future strategic initiatives, and
  - Appropriateness of increasing the PCAF, a key source of revenue, by one dollar in 2027.
- In May 2024, the Members approved a $10 PCAF for 2026. This amount is below the $10.21 PCAF that was in place from 2006-2023. The current PCAF would be $15.17 had fee increases from 2007-2024 aligned with Statistics Canada's annual Consumer Price Index.
- In its discussion, the committee also signaled the need for fiscal prudence when considering locations and guest allowances for in-person Board meetings; and suggested that the Board consider its policy around guest allowances for the annual meeting of members and the Board retreat.

Next steps

- Staff will update the 2025 draft budget based on the Board's feedback.
- The FAR Committee will review the final budget prior to its presentation for Board approval.

Appendices

- **Appendix 1:** 2025 draft budget memo
- **Appendix 2:** Revenue and portfolio detail analysis sheets

Engineers Canada budget 2025

This budget has been drafted for discussion by the Engineers Canada Board of Directors on October 10, 2024.

Highlights

a) The 2025 budget includes $11.3 million in revenue and $12.7 million in expenses.
b) Capital expenditures for 2025 are estimated to be $60,000.
c) The projected unrestricted balance at end of 2025 is $5.5 million.
d) The strategic projects to be funded from unrestricted reserves are:

Strategic priorities:
Realizing accreditation and academic assessments
Realizing our role in sustainability
Realizing a stronger federation
Realizing a fuller awareness of engineers
Realizing an inclusive profession

This results in total project-related spending of $1,133,105 in 2025.

e) Based on the projected revenues, expenses and unrestricted reserve balances, it is proposed that the Board recommend to the Members that the 2027 Per Capita Assessment fee be increased to $11.00 per registrant.

2025 Budget summary

The proposed 2025 budget has a deficit of $1,349,017. Note that $1,133,105 of total spending relates to strategic projects, which are to be funded by drawing down on the unrestricted reserves. With strategic projects excluded, the operating budget is in a $215,913 deficit position.

Expenditures have two (2) main components: operating expenses and expenditures related to strategic projects. The 2025 operating expenses are $11.5 million, a decrease of 2% or $200,249 from 2024 where operating expenses were $11.7 million. The FAR committee approved the 2025 budget envelope assumptions which had an operational expense reduction target of $100,000, excluding the $100,000 allocated to the CEO succession plan in the 2024 budget. Additional details for the operating expenses are included in the portfolio detail analysis sheets.

Revenues are to see an increase of $768,019, or 7%, compared to the 2024 budget. The positive variance is principally driven by the increase in TDI national program sponsorship revenue, a detailed breakdown of revenue is included in the portfolio detail analysis sheets.

Budget process

- Engineers Canada's annual budget preparation begins with the determination of the specific initiatives that will be carried out in the upcoming year. These initiatives are developed by the senior leadership team to ensure alignment with strategic and operational priorities.
- Subsequently, the budget assumption envelope is prepared and presented for approval at the Finance, Audit, and Risk (FAR) Committee's first meeting in June.
- Once approved, revenue and cost estimates are prepared and reviewed by the senior leadership team, and a draft budget is then presented for review by the FAR Committee.

Estimates and assumptions

The following estimates and assumptions have been used in the development of the budget:

- Annual dues are calculated based on membership projections provided by Regulators.

- TD Insurance home and auto insurance program revenues are calculated using estimates provided directly by TD Insurance.
- An operational expense reduction target of $100,000, excluding the $100,000 allocated to the CEO succession plan in the 2024 budget.
- The human resources (HR) budget (part of the Corporate Services portfolio) includes:
    - 47 full time equivalents (FTEs), which is the same level of FTEs as 2024.
    - salary adjustments based on a salary band review for some employees, with others receiving a 2.7% cost of living increase. The CPI Increase of 2.7% is in-line the Statistics Canada CPI rate for the 12-month period ending April 2024.
- The capital budget is developed based on a review of the organization's infrastructure needs including physical facilities and IT.

2025 Budget

The 2025 budget has been structured to show the planned allocation of resources to each of Engineers Canada's core purposes (also referred to as "operational imperatives") and strategic priorities, as defined in the Engineers Canada 2025-2029 Strategic Plan. Additional detail on planned spending per portfolio is provided in the appendices.

Table 1 – 2025 Budget

Category	2025 Budget	2024 Budget	2025 Budget vs 2024 Budget $	2025 Budget vs 2024 Budget %	Notes
Revenues:					
Revenue – Annual dues	2,586,883	2,576,985	9,898	0%	
Revenue - Investments	562,587	522,438	40,148	8%	
Revenue - National programs (Affinity)	8,044,292	7,414,819	629,472	8%	1
Revenue – DEI and outreach	118,500	30,000	88,500	295%	2
Total revenues:	**11,312,261**	**10,524,243**	**768,019**	7%	
Operating Expenses:					
Accreditation	447,517	513,529	66,012	13%	3
Fostering working relationships	151,185	123,981	(27,204)	-22%	4
Services and tools	120,150	119,835	(315)	0%	
National programs	884,130	784,782	(99,348)	-13%	5
Advocating to the federal government	63,500	78,000	14,500	19%	
Research and regulatory changes	6,595	21,000	14,405	69%	6
International mobility	98,714	84,738	(13,976)	-16%	
Promotion and outreach	339,650	363,100	23,450	6%	
Diversity and inclusion	94,000	195,550	101,550	52%	7
Protect official marks	166,902	163,650	(3,252)	-2%	
Secretariat services	982,981	1,232,502	249,521	20%	8
Corporate services	8,172,850	8,047,756	(125,094)	-2%	9
Total Operating Expenses	**11,528,174**	**11,728,422**	**200,249**	2%	
Operating Surplus/(Deficit)	**(215,913)**	**(1,184,180)**	**968,277**		
Projects Spending:					
2025-2029 Strategic Plan					
Realizing accreditation and academic assessments	561,938	-	(561,938)	n/a	10
Realizing our role in sustainability	32,000	-	(32,000)	n/a	10
Realizing a stronger federation	70,000	-	(70,000)	n/a	10

Realizing a fuller awareness of engineers	129,148	-	(129,148)	n/a	10
Realizing an inclusive profession	340,018	-	(340,018)	n/a	10
	1,133,105	-	**(1,133,105)**	**n/a**	

2022-2024 Strategic Plan					
Investigate and validate the purpose and scope of accreditation	-	622,637	622,637	n/a	
Strengthen collaboration and harmonization	-	2,731	2,731	n/a	
Accelerate 30 by 30	-	268,622	268,622	n/a	
Reinforce trust and the value of licensure	-	2,706,854	2,706,854	n/a	
	-	**3,600,844**	**3,600,844**	**n/a**	
Total Project Spending	**1,133,105**	**3,600,844**	**2,467,739**	**69%**	
Surplus/(Deficit)	**(1,349,017)**	**(4,785,024)**	**3,436,007**	**72%**	

Notes on 2025 budget vs 2024 budget

1. The $629,472 increase is mainly due to TDI home and auto insurance program; TDI is predicting an 8.1% increase in sponsorships fees compared to 2024. This is due to a combination of increased customer policies and an increase in insurance premiums.
2. This increase of $88,500 for a total of $118,500 is due to the successful sponsorship campaign for the 30 by 30 Conference in 2024, which generated $118,000 in revenue. These funds are utilized to reduce the costs associated with providing these services.
3. The decrease in budget of $66,012 is due to an enhanced evaluation of all costs related to travel based on actual travel expenditures in 2023 and 2024, offset by increased operational support costs associated with the Tandem system.
4. The increase of $27,204 is mainly due to go forward operational costs of the previous strategic initiative of collaboration and harmonization, coupled with an increase in meeting costs for the CEO group.
5. The $99,348 increase is due the 2024 budget assumption that Engineers Canada would be successful in negotiating with TDI the reimbursement of actuarial services. The 2025 budget is in-line with the 2024 forecasted expenditures.
6. The decrease of $14,405 is due to a purposeful decision to move resources from core purpose work to strategic work.
7. This decrease is due to moving $101,550 to the Human Resources budget contained in Corporate Services to cover a position in the Belonging and Engagement team. This position was originally tied to Strategic priority (SP2.1) under the 2022-2024 Strategic Plan.
8. The decrease of $249,521 is based on an enhanced evaluation of actual Board and Committee meeting costs in 2023 and 2024, and the elimination of the one-time budget allocation of $100,000 for the CEO succession plan included in 2024.
9. The $125,094 increase is mainly due to salary increases driven by a mix of salary bands reviews or CPI increases of 2.7%. This increase was offset by savings in our Journey to Excellence as no verification costs are included in 2025, and savings in IT costs.
10. These items are the strategic directions under the 2025-2029 Strategic Plan. The costs are in-line with the budget envelope assumptions presented to the FAR Committee, and the budget for these items comes from the unrestricted reserves. See the portfolio detail analysis sheets for more information

2025 Budget – Total expenses by operational imperative, including staff costs

The following table is provided for analysis purposes. It shows proposed 2025 spending by core purpose including projects and staff salary and benefit cost (HR component), as represented in the corporate services budget.

Table 2 – 2025 Budget with staff allocations

Category	Expenses	HR component	Total	Allocation	Notes
CP 1 - Accreditation	1,009,456	861,710	1,871,166	16%	1
CP 2 - Fostering working relationships	151,185	152,891	304,076	3%	
CP 3 - Services & Tools	120,150	189,051	309,201	3%	
CP 4 - National Programs	174,130	452,098	626,228	5%	2
CP 5 - Advocating to the Fed. Gov't.	63,500	189,051	253,446	2%	
CP 6 - Research	6,595	26,248	32,843	0%	
CP 7 - Int'l Mobility	98,714	467,442	566,156	5%	
CP 8 - Promoting the profession	468,798	341,282	810,080	7%	
CP 9 - Diversity & Inclusion	315,518	544,135	859,653	7%	3
CP 10 - Protect official marks	166,902	26,252	193,154	2%	
Secretariat services	1,084,981	1,152,404	2,236,385	19%	
Corp Services	1,692,903	2,077,488	3,770,391	32%	
Total:	**5,352,832**	**6,479,946**	**11,832,778**	**100%**	

Notes

1. Includes accreditation business and Strategic Direction-realizing accreditation and academic assessments.
2. Net expense with adjustment for related revenues of $710,000.
3. Net expense with adjustment for related sponsorship revenues of $118,500.

2025 Capital budget

Table 3 – Capital budget

Asset Type	2025 Budget	2024 Budget
Office furniture and equipment	$10,000	$10,000
Computer hardware	$40,000	$57,000
Leasehold Improvements	$10,000	$10,000
Total:	**$60,000**	**$77,000**

In 2025, $40,000 of the capital budget will be used to replenish computer hardware, based on our 4-year evergreen cycle. In addition, office furniture and equipment costs of $10,000 will be used to general furniture replacement, and leasehold improvement costs of $10,000 will be invested in general facilities.

Status of reserves

Board policy 7.12, *Net Assets* provides the ability of Engineers Canada to maintain adequate net asset levels and is considered an indication of safety, stability and a prudent resistance to adverse business and economic conditions. The Board's net asset target levels for the restricted reserves are $1.5M for legal, $2M for strategic priorities, and $2.5M for contingency. The unrestricted reserve target level is no less than $1 million.

Table 4 – Reserves

Year	Net Assets	Legal contingency reserve	Strategic priorities reserve	Contingency reserve	Invested in tangible capital and intangible assets	Unrestricted reserve	Total	Notes
2024	2024 Opening balance	1,500,000	2,000,000	2,500,000	385,667	10,831,606	17,217,273	1
	Additions to capital assets				77,000	(77,000)		
	Amortization of capital assets				(200,174)	200,174		
	Amortization of leasehold inducements				42,684	(42,684)		
	Projected 2024 surplus/(deficit)					(4,167,642)		
	Projected 2024 closing balance	**1,500,000**	**2,000,000**	**2,500,000**	**305,177**	**6,744,454**	**13,049,631**	
2025	Additions to capital assets				60,000	(60,000)		
	Amortization of capital assets				(206,100)	206,100		
	Amortization of leasehold inducements				42,684	(42,684)		
	Projected 2025 surplus/(deficit)					(1,349,017)		
	Projected 2025 closing balance	**1,500,000**	**2,000,000**	**2,500,000**	**201,761**	**5,498,853**	**11,700,614**	
2026	Additions to capital assets				500,000	(500,000)		
	Amortization of capital assets				(200,000)	200,000		
	Amortization of leasehold inducements				42,684	(42,684)		
	Projected 2026 surplus/(deficit)					(1,016,570)		
	Projected 2026 closing balance	**1,500,000**	**2,000,000**	**2,500,000**	**544,445**	**4,139,599**	**10,684,044**	
2027	Additions to capital assets				100,000	(100,000)		
	Amortization of capital assets				(200,000)	200,000		
	Amortization of leasehold inducements				42,684	(42,684)		
	Projected 2027 surplus/(deficit)					(877,643)		
	Projected 2027 closing balance	**1,500,000**	**2,000,000**	**2,500,000**	**87,129**	**3,319,271**	**9,806,400**	2
	Note 1 - Agreed to 2023 audited financial statements							
	Note 2 - See paragraph below for additional information							

The current 2027 projected deficit of $877,643 assumes a Per Capita Assessment fee of $11 in 2027.

Three-year projection: 2025 -2027

The following table shows projections on future revenues and expenditures for the years 2025-2027.

Table 5 – Three-year projection (in 000's)

Category	2025	2026	2027	Notes
Revenues:				
Revenue-Annual dues	2,587	3,223	3,557	1
Revenue-Investments	563	459	464	
Revenue - National programs	8,044	8,292	8,539	2
Revenue - DEI and outreach	119	121	123	
Total revenues:	**11,312**	**12,095**	**12,684**	
Operating Expenses:				
Accreditation	448	448	448	
Fostering working relationships	151	151	151	
Service and tools	120	120	120	
National programs	884	884	884	
Advocating to the federal government	64	64	64	
Research and regulatory changes	7	7	7	
International mobility	99	99	99	
Promotion and outreach	340	340	340	
Diversity and inclusion	94	94	94	
Protect official marks	167	167	167	
Secretariat services	983	983	983	
Corporate services	8,173	8,173	8,173	
Increase in operating expenses vs 2025	-	350	700	
Total Operating Expenses	**11,528**	**11,878**	**12,228**	
% Increase in operating expenses		***3%***	***3%***	
Operating Surplus/(Deficit)	**(216)**	**217**	**455**	
Projects Spending:				
2025-2029 Strategic Plan				
Realizing accreditation and academic assessments	562	-	-	3
Realizing our role in sustainability	32	-	-	3
Realizing a stronger federation	70	-	-	3
Realizing a fuller awareness of engineers	129			3
Realizing an inclusive profession	340	-	-	3
	1,133	**1,233**	**1,333**	
Total Project Spending	**1,133**	**1,233**	**1,333**	
Surplus/(Deficit)	**(1,349)**	**(1,017)**	**(878)**	

Notes on projections

1. Annual dues revenue assumes a PCAF of $8 in 2025, $10 in 2026 and increases to $11 in 2027. The total number of members is predicted to decrease by 0.3% in 2026 and increase by 0.3% in 2027.

2. TD affinity revenues are based on the 5-year projections provided by TD, which call for a 4% and 4.1% increase in 2026 and 2027, respectively, for Engineers Canada's portion.

3. These budgets are based on the current planning for the strategic priorities (2025-2029) and will be adjusted as the projects progress. The $1,233,000 and $1,333,000 included for 2026 and 2027 respectively are a placeholder for financial modelling purposes and will be revised as project plans progress.

Assumptions

These projections assume Engineers Canada maintaining a similar scope of work and strategic direction from 2025 through 2027.

In preparing the projection for operating expenses an increase of 3% was assumed in 2026 and 2027.

Proposed 2027 Per Capita Assessment Fee

As per section 7 of the Engineers Canada Bylaw, the Board must provide a proposal for the 2027 Per Capita Assessment Fee (PCAF). Projections for the 2028 and 2029 unrestricted reserve balance are also provided, as per Regulators' request. The proposed PCAF has been established with due consideration of expenses (operating, and strategic) and revenue. The following assumptions were made in the calculation of the proposed PCAF:

1. The revenue received from the PCAF is based on the member estimates provided from Regulators up until 2027 and is increased 2% year-over-year for 2028 and 2029.
2. The revenue received from affinity programs is based on projections from the program providers.
3. Operating expenses will increase 3% from 2026 to 2029.
4. Spending from 2026 to 2029 on the new strategic directions will increase $0.1M per year over 2025.

Table 6 – Projected Unrestricted Reserve Balances

The following tables show the projected summarized statement of operations and unrestricted reserve balances by year based on the above assumptions.

Scenario 1: Assumes a $11.00 PCAF in 2027, $12.00 in 2028, and $12 in 2029.

Statement of Operations (in 000's)

PCAF=	*$11*	*$12*	*$12*

Category	2025 Budget	2026 Projections	2027 Projections	2028 Projections	2029 Projections
Total Revenues	**11,312**	**12,095**	**12,684**	**13,370**	**13,786**
Total Operating Expenses	**11,528**	**11,878**	**12,228**	**12,578**	**12,928**
% Increase/(decrease) in operating expenses		***3%***	***3%***	***3%***	***3%***
Operating Surplus/(Deficit)	**(216)**	**217**	**455**	**791**	**857**
Total Project Spending	**1,133**	**1,233**	**1,333**	**1,433**	**1,533**
Surplus/(Deficit)	**(1,349)**	**(1,017)**	**(878)**	**(642)**	**(676)**

Unrestricted Reserve Projections (in 000's)

	2025 Budget	2026 Projections	2027 Projections	2028 Projections	2029 Projections
Opening balance	**6,744**	**5,499**	**4,140**	**3,319**	**2,735**
Additions to capital assets	(60)	(500)	(100)	(100)	(100)
Amortization of capital assets	206	200	200	200	200
Amortization of leasehold inducements	(43)	(43)	(43)	(43)	(43)
Projected surplus/(deficit)	**(1,349)**	**(1,017)**	**(878)**	**(642)**	**(676)**
Projected closing balance	**5,499**	**4,140**	**3,319**	**2,735**	**2,116**

Scenario 2: Assumes a $10.00 PCAF in 2027, $11.00 in 2028, and $12 in 2029.

Statement of Operations (in 000's)

PCAF=	$10	$11	$12

Category	2025 Budget	2026 Projections	2027 Projections	2028 Projections	2029 Projections
Total Revenues	**11,312**	**12,095**	**12,360**	**13,040**	**13,786**
Total Operating Expenses	**11,528**	**11,878**	**12,228**	**12,578**	**12,928**
% Increase/(decrease) in operating expenses		*3%*	*3%*	*3%*	*3%*
Operating Surplus/(Deficit)	**(216)**	**217**	**132**	**462**	**857**
Total Project Spending	**1,133**	**1,233**	**1,333**	**1,433**	**1,533**
Surplus/(Deficit)	**(1,349)**	**(1,017)**	**(1,201)**	**(972)**	**(676)**

Unrestricted Reserve Projections (in 000's)

	2025 Budget	2026 Projections	2027 Projections	2028 Projections	2029 Projections
Opening balance	**6,744**	**5,499**	**4,140**	**2,996**	**2,082**
Additions to capital assets	(60)	(500)	(100)	(100)	(100)
Amortization of capital assets	206	200	200	200	200
Amortization of leasehold inducements	(43)	(43)	(43)	(43)	(43)
Projected surplus/(deficit)	**(1,349)**	**(1,017)**	**(1,201)**	**(972)**	**(676)**
Projected closing balance	**5,499**	**4,140**	**2,996**	**2,082**	**1,463**

Recommendation for the 2027 Per Capita Assessment Fee (PCAF):

Based on the above, it is recommended that the PCAF increase by $1.00 to $11.00 for 2027 (scenario 1). The increase will result in an increase in revenues of $323K in 2027 in comparison to the 2026. Under this scenario and coupled with the projected operating cost increase in of 3% in 2027, we are projecting to achieve a surplus operating budget of $243K. With strategic project spending of $1.3 million in 2027, we are projecting an overall deficit of $878K. This would result in an unrestricted reserve balance of $3.3 million at the end of 2027, above the Board-mandated minimum of $1.0 million.

Value per Member

The value per member table below is provided for information purposes, it illustrates the total dollar value each member receives based on the currently proposed 2025 budgeted expenses.

2025 Budgeted Operating Expenses	$11,528,174
2025 Budgeted Project Expenses	$1,133,105
	$12,661,278
Projected number of Members in 2025	323,360
Value Per Member in 2025	**$39**

Revenue

Detail analysis

Description: Engineers Canada revenues are made up of two (2) main components: affinity program sponsorships and the annual dues received from Regulators. These two (2) components are expected to make up 86% of the 2025 revenues. The remaining portion contains revenues that are for specific endeavours which have related expenses such as the Secondary Professional Liability Insurance Program (SPLIP), the sponsorships of the awards gala, spring meeting, outreach programs, and Engineering Deans Canada (EDC) revenues. These five (5) components make up 9% of total revenues. The final 5% of revenues are made up of income and appreciation of investments, rent revenue, and interest earned on bank balances.

Budget details

Number	Description	2025 Budget	% of Total	2024 Budget	Change
1	Affinity and Insurance Programs Revenue	7,146,792	63.2%	6,517,319	629,472
2	Provincial Annual Dues Revenue	2,586,883	22.9%	2,576,985	9,898
3	SPLIP Revenue	710,000	6.3%	710,000	-
4	Changes in the Fair Value of Investments	200,000	1.8%	250,000	(50,000)
4	Investment Income	300,000	2.7%	212,000	88,000
5	Awards Sponsorship Revenue	175,000	1.5%	175,000	-
6	DEI and Outreach Sponsorship Revenue	118,500	1.0%	30,000	88,500
7	EDC Revenue	45,787	0.4%	44,298	1,488
8	Rent Revenue	12,000	0.1%	11,340	660
9	AGM Sponsorship Revenue	12,500	0.1%	12,500	-
10	Interest Bank Accts (CND) Revenue	4,800	0.0%	4,800	-
	Total Revenue	**11,312,261**	**100%**	**10,544,243**	**768,018**

Rationale for 2025 budget:

1. The affinity program revenues for 2025 are determined by the agreements signed, the largest of which is the TDI home and auto insurance program. 2018 was the first year of a 12-year agreement with TD Insurance for the program. The 2025 TD Insurance revenues are calculated based upon the total written premium value for 2024. This figure will not be known with certainty until early in 2025. The 2025 estimate is based upon total written premium projections ($420M) provided by TD Insurance.
2. The annual dues from Regulators are calculated based on the annual membership level estimates received from each Regulator. Based on the 2025 membership projections received (323,360 members vs the 2024 budget of 322,123), Engineers Canada is predicting an increase of $10K in annual dues in 2025. The PCAF for 2025 and 2024 is $8.00.
3. SPLIP program revenues are based on estimates for 2025 participation levels. This is a flow-through revenue which is offset by an equivalent expenditure.
4. The investment income has increased by $38K mainly due to increase the anticipated return to 4% from 3.5% in 2024. The historical rate of return of the portfolio is 5.98%.

5. Awards sponsorships are the same as in 2024. This is a flow-through revenue which is offset by an equivalent expenditure.
6. Diversity, Equity, and Inclusion (DEI) and outreach sponsorships are for the annual 30 by 30 Conference and the National Engineering Month (NEM). These funds are utilized to reduce the costs associated with providing these services. The anticipated increase of $88.5K in 2025 is due to the successful sponsorship campaign for the 30 by 30 Conference in 2024, which generated $118K in revenue.
7. The Engineering Deans Canada (EDC) revenue is a flow-through revenue that is offset by an equivalent expenditure.
8. These revenues are from renting out space at the Engineers Canada office.
9. No change in 2025. This is a flow-through revenue which is offset by an equivalent expenditure.
10. These revenues represent excess short-term cash from operations that are kept in an interest-bearing savings account.

Accreditation
2025 Portfolio detail analysis

Portfolio: Accreditation business and improvements to the accreditation processes and systems.

Description: This portfolio contains all the work in Core Purpose 1 (the regular business of the Canadian Engineering Accreditation Board [CEAB]) and Strategic Direction (SD) Realizing accreditation and academic assessments, with pillars of Full Spectrum Competency Profile, Accreditation system improvements and National intake and academic assessment services business case.

Budget details:

Cost element	2025
1. Accreditation business	$447,517
2. SD-Realizing accreditation and academic assessments	$561,938
Totals	**$1,009,455**

Rationale for 2025 budget:

1. This includes the costs for program visits, the costs for training of CEAB members, visitors and staff for the higher education institutions (HEIs), and the cost associated with ongoing relationship management with educators, EDC, and the Canadian Engineering Education Association (CEEA), and the cost to produce the Accountability in Accreditation annual report. Travel costs account for 62% of this cost element.
2. This project will continue on work put forth in the Path Forward Report in 2024. Specific recommendations related to the assessment of non-CEAB applications (TBD in Fall 2024) will be implemented by regulators, HEIs, CEAB, Engineers Canada staff, and other interest holders. Engineers Canada systems will be transitioned as required. Costs are related to travel and a psychometrician.
3. This project will continue on work put forth in the Path Forward Report in 2024. Specific recommendations related to building the improved accreditation system (TBD in Fall 2024) will be implemented by regulators, HEIs, CEAB, Engineers Canada staff, and other interest holders. Engineers Canada systems will be transitioned as required. Costs are related to consulting fees, a systems change consultant, travel, and a resource to support an environmental scan/writing. There will also be an FTE backfill to support this project.

Considerations for the Board:

- The CEAB's total 2025 operating budget is $634,712 versus $758,158 in 2024. This is the total of cost element 1 above plus costs to host CEAB meetings included in the secretariat services portfolio detail analysis.

Fostering relationships among the Regulators
2025 Portfolio detail analysis

Portfolio: Fostering relationships between the Regulators' staff and volunteers.

Description: This portfolio contains all the work under Core Purpose 2, including supporting the Officials Groups, the CEO Group, the Presidents Group, as well as ongoing operational costs for Strengthen collaboration and harmonization.

Budget details:

Cost element	2025
1. Officials Groups	$95,800
2. CEO Group	$40,385
3. Strengthen collaboration and harmonization	$15,000
Totals	**$151,185**

Rationale for 2025 budget:

1. This includes the costs to host one (1) face-to-face meeting for the National Practice Officials Group, the National Discipline & Enforcement Officials Group, and the National Admissions Officials Group.
2. This includes the costs for hosting three (3) face-to-face CEO Group meetings, as well as support for airfare and accommodation costs for Regulators with less than 2,500 registrants (Engineers PEI, NAPEG, and Engineers Yukon) to attend the July meeting, and the airfare costs for Regulators with between 2,500 and 10,000 registrants to attend the July meeting.
3. The previous Strategic Priority 1.2, *Strengthen collaboration and harmonization,* concluded in 2024 with the signature of a Statement of Collaboration at the May Annual Meeting of Members (AMM). The activities for the next strategic plan will be absorbed and completed under operational expenses.

Considerations for the Board:

- These meetings are a valuable service in the eyes of the Regulators and a key opportunity for Engineers Canada staff to collaborate with Regulator staff.

Providing services and tools for regulation and professional practice
2025 Portfolio detail analysis

Portfolio: Providing services and tools that enable assessment, facilitate national mobility, and foster excellence in engineering practice and regulation. These services are provided by both the Canadian Engineering Qualifications Board (CEQB) (through examination syllabi, guidelines, and papers) and by Engineers Canada staff.

Description: This portfolio contains all the work in Core Purpose 3, including the work plan of the CEQB, and the National Membership Database (NMDB).

Budget details:

Cost element	2025
1. CEQB work plan items (as currently proposed)	$56,150
2. National Membership Database- maintenance	$64,000
Totals	**$120,150**

Rationale for the 2025 budget:

1. This includes budget for the delivery of the proposed CEQB 2025 work plan, as follows:

Write up on paper on groundbreaking technologies	Carried forward	$12,000
Development of a guideline on regulatory engineering		$17,000
Guideline on the use of new technologies in engineering		in-house
Review of 2018 Regulators guideline on academic assessment of non-CEAB applicants		in-house
Various outreach activities		$27,150
TOTAL		**$56,150**

2. This is the annual hosting and maintenance cost for the national membership database (NMDB).

Considerations for the Board:

- The CEQB's total 2025 budget is $173,381, versus $172,500 in 2024. This is the cost to deliver on their work plan, as presented here, plus the costs to host CEQB meetings included in the secretariat services portfolio detail analysis.
- The CEQB uses consultants to support the delivery of some work plan items.
- The majority of work undertaken by the CEQB is multi-year and items will carry forward to 2025.
- The NMDB is a tool used by Regulators to facilitate the licensure of individuals who are already licensed by another Canadian jurisdiction. Eleven (11) Regulators access the NMDB to check the licensure status of such applicants, and five (5) Regulators upload data about their own applicants (with three (3) others working to join this group).

Offering national programs
2025 Portfolio detail analysis

Portfolio: Offering national programs

Description: This portfolio contains the items from Core Purpose 4, which relate to the costs for the affinity programs.

Budget details:

Cost element	2025
1. Affinity programs	$169,130
2. Secondary Professional Liability Insurance Program (SPLIP)	$715,000
Totals	**$884,130**

Rationale for 2024 budget:

1. This includes actuarial consulting fees, marketing and promotional materials, and travel and meeting costs.
2. This is a flow-through cost (i.e., this expense is balanced by an equal amount of revenue). The Secondary Professional Liability Insurance Program (SPLIP) protects members who are in good standing. Ten (10) of the twelve (12) Regulators participate in the program; PEO and OIQ do not participate. The SPLIP ensures that the member, the public, and the reputation of the engineering profession stay protected in numerous cases involving professional services. Engineers Canada manages the SPLIP on behalf of the participating Regulators.

Considerations for the Board:

- No additional considerations.

Advocating to the federal government
2025 Portfolio detail analysis

Portfolio: Advocating to the federal government

Description: This portfolio contains all the items under Core Purpose 5 (CP5), including ongoing work of the advocacy sub-strategy.

Budget details:

Cost element	2025
1. Legislative monitoring	$37,600
2. External Public Affairs consultant	$20,500
3. Public policy initiatives	$2,400
4. Federal government panels	$3,000
Totals	**$63,500**

Rationale for 2025 budget:
This includes budget for all advocacy activities including ongoing activities and activities recommended in the CP5 sub-strategy:

1. Legislative monitoring: retention of a public affairs firm to ensure good monitoring of federal legislation affecting the regulation of engineering and the engineering profession.
2. For 2025, there will be no Hill Day. Hill Day funds will be reallocated to hire an external Public Affairs consultant for targeted government relations work.
3. Public policy initiatives and translation services: the costs of public policy initiatives (travel cost for meetings with parliamentarians, registration to events, etc.) and translation services.
4. Federal government panels: the costs associated with travelling to participate and represent Engineers Canada in meetings of federal committees and consultation panels outside Ottawa where travel costs are not covered by the federal government. This includes, for example, meetings of the Natural Resources Canada Adaptation Panel Plenary held in the spring and fall.

Considerations for the Board:

- Engineers Canada will prioritize ongoing program work and dedicated advocacy efforts to maintain positive relations with the federal government, ensuring our continued role as a trusted advisor on engineering regulation and profession-related matters.
- Allocating sufficient resources to sustain advocacy initiatives and fostering strong relationships with federal policymakers is essential to maintain our influence in shaping policies and regulations.

Monitoring, researching, and advising on engineering and regulation
2025 Portfolio detail analysis

Portfolio: Research into the engineering profession and professional regulation in general.

Description: This portfolio contains all the work in Core Purpose 6, monitoring, researching, and advising on changes and advances that impact the Canadian regulatory environment and the engineering profession.

Budget details:

Cost element	2025
1. Research – Conferences	$6,595
Totals	**$6,595**

Rationale for 2025 budget:

1. This includes travel costs for a conference and potential presentation on a related topic.

Considerations for the Board:

- The Regulators are consulted in the selection of the topics for the emerging areas paper and the research paper and participate on advisory groups for the development of those papers.

International mobility of engineering work and practitioners
2025 Portfolio detail analysis

Portfolio: International mobility of engineering work and practitioners.

Description: This portfolio contains the items under Core Purpose 7, including: memberships in, and attendance at, international organizations and their conferences; maintenance and development of mobility agreements at both the academic and full professional level; and maintenance and improvements to our foreign credential recognition tools (EngineerHere.ca website, International Institutions and Degrees Database (IIDD), and customer support to Regulators and the public).

Budget details:

Cost element	2025
1. International organizations (IEA)	$49,625
2. US-based organizations (NCEES)	$4,200
3. Foreign credential recognition tools	$32,689
4. Mobility register maintenance	$12,200
Totals	**$98,714**

Rationale for 2025 budget:

1. This includes the costs for five (5) people to attend the annual meeting of the International Engineering Alliance (IEA) in Mexico, as well as the annual membership fees.
2. This includes the costs for two (2) people to attend the annual meeting of the National Council of Examiners for Engineering and Surveying (NCEES) in the US.
3. This includes the cost to host and maintain the International Institutions and Degrees Database (IIDD), as well as the cost of upkeeping the EngineerHere.ca website and implementing Regulator-requested updates.
4. This represents the annual operating costs for the new mobility register. Maintaining a register is a condition of membership in the IEA's International Professional Engineers' and APEC Engineers' agreements (IPEA and APEC-EA).

Considerations for the Board:

- The IIDD is a tool used by Regulators to evaluate the academic formation of international engineering graduates. The tool includes information from 250 countries with detailed information on more than 4,000 institutions, and over 15,000 engineering programs.

Promoting recognition of the value of engineering and sparking interest in the next generation
2025 Portfolio detail analysis

Portfolio: Promotion and outreach

Description: This portfolio contains all the work under the Strategic Direction (SD): Realizing a fuller awareness of engineers and Core Purpose 8, to foster recognition of the profession (promotion) and to spark interest in the next generation of engineers (outreach), including: implementation of a new sub-strategy for the portfolio; ongoing work; and operation of the awards, scholarships, and fellowships programs.

Budget details:

Cost element	2025
1. Promotion and outreach	$134,000
2. Awards, scholarships, and fellowships	$205,650
3. SD-Realizing a fuller awareness of engineers	$129,148
Totals	**$468,798**

Rationale for 2025 budget:

1. This budget includes: K-12 Development (Girl Guides Canada, Scouts Canada, Future City), Engineering Student Development (Canadian Federation of Engineering Students (CFES), EngiQueers), National Collaborative Outreach Initiatives (National Engineering Month, Community of Practice for Regulator Outreach Staff, Engineering Graduates and EIT/MIT Programming) and Joint Thought Leadership (Sustainability in Practice MOOC, Explore Engineering website, Collective Impact Project).
2. This budget includes operation of the awards program, the scholarship program, and the fellowship program. The majority of the awards and scholarship expenditures are offset by contributions through sponsorship of the spring meetings.
3. Through the Strategic Direction: Realizing a fuller awareness of engineers we will review the Building Tomorrows campaign and convene the Board and regulators to determine if and how Engineers Canada would pursue and fund a national marketing campaign. We will also continue to promote the Pathway to Engineering website and activities to support licensure of engineering graduates and advance the public interest and safety value that engineers bring to boards and senior leadership of corporations and public bodies.

Considerations for the Board:

- No additional considerations.

Promoting diversity and inclusion in the profession
2025 Portfolio detail analysis

Portfolio: Diversity and inclusion

Description: This portfolio contains all the work under the Strategic Direction (SD): Realizing an inclusive profession and Core Purpose 9, to promote diversity and inclusivity in the profession, including ongoing work and the implementation of the SP2.1 sub-strategy.

Budget details:

Cost element	2025
1. SD-Realizing an inclusive profession	$340,018
2. Ongoing equity, diversity and inclusion (EDI) work	$94,000
Totals	**$434,018**

Rationale for 2025 budget:

1. Through the Strategic Direction: Realizing an inclusive profession we will develop and implement a national strategy for recruitment and retention. We will reposition the 30 by 30 initiative and organize a national conference. We will start to implement the Indigenous Advisory Committee-led envisioning exercise and lead consultations with the regulators on the proposed scope for our work towards truth and reconciliation. We will continue to revise the champion program from a group of allies raising awareness to a national program designed to enable and support system change with a focus on three interest groups: Engineering Employers, HEIs and Regulators.

2. This budget includes ongoing EDI work under Core Purpose 9, including:
    - engaging and supporting the Indigenous Advisory Committee,
    - support for the Decolonization and Indigenization in Engineering Education Network (DIEEN), and
    - Production of 1-2 national reports, including the National Membership Report

Considerations for the Board:

- No additional considerations.

Protecting official marks
2025 Portfolio detail analysis

Portfolio: Oversee management, registration, and enforcement of Engineers Canada's trademarks and official marks and administer the federal incorporation process.

Description: This portfolio contains all the work in Core Purpose 10, including the management and enforcement of Engineers Canada's official marks and trademarks and the administration of the federal incorporation process.

Budget details:

Cost element	2025
1. Trademark enforcement	$159,120
2. Texts and subscriptions	$7,782
Totals	**$166,902**

Rationale for the 2024 budget:

1. On behalf of all twelve regulators, Engineers Canada actively opposes the misuses of 'engineer' title and its trademarks in Canada. It is difficult to predict the accurate number of potential trademark oppositions in 2025, however, it is noted that the number of active oppositions has been steadily growing in the past three years; and the budget of $159,120 is based on the same and on an estimate for external law firm fees and filing fees with the government. In the event the opposition matters advance to court proceedings, evidence, arguments, and hearings attract larger fees as they require significant amount of time to prepare and present before the court. Currently, there are about 45 active proceedings and four (4) potential hearings that have been identified.
2. This includes the costs to maintain subscriptions to online legal research databases for one (1) user.

Considerations for the Board:

- No additional considerations.

Secretariat services
2025 Portfolio detail analysis

Portfolio: Secretariat services

Description: This portfolio contains all the Board Responsibilities, and the expenses related to supporting the Board, its committees, EDC, and the Strategic Directions (SD); Realizing role our in sustainability, and realizing a stronger federation.

Budget details:

Cost element	2025
1. Board and committee meetings	$620,340
2. CEAB meetings	$187,195
3. CEQB meetings	$117,231
4. President's travel	$12,615
5. Engineering Deans Canada (EDC)	$45,601
6. SD-Realizing our role in sustainability	$32,000
7. SD-Realizing a stronger federation	$70,000
Totals	**$1,084,981**

Rationale for 2025 budget:

1. This includes costs for: the Board's February, April, May, October, and December meetings, the May Annual Meeting of Members (AMM), the June Board strategic workshop. It also includes all meetings of Board committees and task forces.
2. This includes the costs for two (2) face-to-face CEAB meetings, as well as costs for face-to-face meetings of the CEAB's Policies & Procedures Committee.
3. This includes the costs for two (2) face-to-face CEQB meetings.
4. This includes the costs for the Engineers Canada President (and their guest, if attending a Regulator annual meeting) to travel within Canada. Costs for travel to specific events (e.g. the International Engineering Alliance) are included in each items' budget.
5. This includes costs for the CEO (or their designate) to attend two (2) EDC meetings and maintain a relationship with the group. It also includes the costs for a contractor to provide secretariat services to the EDC. The EDC pays Engineers Canada for this service, therefore, $45,601 of this cost is a flow-through.
6. This includes the cost of an external consultant to complete an environmental scan to lay the foundation for scoping Engineers Canada's national role in sustainability.
7. This is an initial cost for hiring an external consultant who will conduct interviews with the twelve (12) regulators to identify issues, benchmark against other governance systems, and present options to the Board.

Considerations for the Board:

- The CEAB's total 2025 budget is $634,712 versus $758,158 in 2024. Costs for delivery of ongoing accreditation work items are included in the accreditation portfolio detail analysis.
- The CEQB's total 2025 budget is $173,381 versus $172,500 in 2024. Costs for delivery of work plan items are included in the services and tools portfolio detail analysis.

- The costs for the individual Board meetings are:
    - $ 103,210 February (winter) meeting
    - $ 2,424 April (early spring) meeting (virtual meeting)
    - $ 237,154 May (spring) meeting and AMM
    - $ 96,673 June Board workshop (AB location)
    - $ 81,237 October (fall) meeting
    - $ 6,349 December (late fall) meeting (virtual meeting)

Corporate services: other
2025 Portfolio detail analysis

Portfolio: Corporate services

Description: This portfolio contains work included under Engineers Canada's Internal Enablers, including miscellaneous corporate services such as salaries, information technology, communications, internal legal services, facilities, corporate memberships, discretionary executive budgets, and CEO travel.

Budget details:

Cost element	2025
1. Administration and finance	$531,637
2. Executive expenses including corporate memberships and CEO travel	$83,312
3. Communications	$92,594
4. Facilities and office expenses	$683,740
5. Human resources	$6,608,707
6. Information technology	$131,700
7. Organizational excellence	$41,160
Totals	**$8,172,850**

Rationale for the 2025 budget:

1. This includes expenses such as corporate insurances, audit fees, investment advisor fees, bank service fees, the accounting software subscription, and amortization of $206,100.
2. This includes expenses related to general and miscellaneous travel expenses for the CEO (i.e. travel not related to a specific meeting, such as a CEO Group meeting or a Board meeting), Executive Team consulting and miscellaneous expenses, and corporate memberships (e.g. Excellence Canada, World Federation of Engineering Organizations, Chamber of Commerce, Canadian Network of Agencies for Regulation, etc.).
3. This includes corporate communications strategy, corporate communication services, development, maintenance, and hosting of public websites and periodicals such as Engineering Matters and the Daily Media Report.
4. This includes rent of $609,781, spending on office services and supplies, telephone costs, and facilities repairs and maintenance.
5. This includes all salaries and benefit costs, as well as human resources related costs such as recruitment, parental leave top-ups, staff training, consultant fees, and memberships.
6. This includes licence subscription fees for Office 365 and Amazon WEB Services (cloud-based data storage), Security Operations Center (SOC) services, ISP costs, and non-capital expenses for monitors, keyboards, etc.
7. This includes expenses related to collaboration software, event management software (Pheedloop), planning software (Envisio), evolving our volunteer management program, and upholding Engineers Canada's ongoing commitment to excellence.

Considerations for the Board:

- No additional considerations.

BRIEFING NOTE: For decision

Governance Review Task Force terms of reference	4.4
Purpose:	To approve the Governance Review Task Force terms of reference
Link to the Strategic Plan / Purposes:	Strategic direction: Realizing a stronger federation
Link to Corporate Risk Profile:	Decreased confidence in the governance functions (Board risk)
Motion to consider:	*THAT the Board, on recommendation of the Governance Committee, approve Board policy 6.16, Governance Review Task Force terms of reference.*
Vote required to pass:	Two-thirds majority
Transparency:	Open session
Prepared by:	Joan Bard Miller, Manager, Governance and Board Services
Presented by:	Sophie Larivière-Mantha, Chair, Governance Committee

Problem/issue definition

- The Engineers Canada Board and Members included a governance review in the 2025-2029 Strategic Plan, as part of Engineers Canada's ongoing commitment to good governance.
- Through the strategic planning process, it was suggested that it would be beneficial for the Board to form a task force that would oversee the governance review.
- Once approved by the Board, the terms of reference (TOR) will guide:
    - recruitment of task force members by the HR Committee, and
    - the work of the task force beginning in early 2025.

Proposed action/recommendation

- That the Board approve the attached TOR for the Governance Review Task Force.
- TOR, sometimes called a charter, establishes the task force and specifies key information about its work and membership.
- The task force will strive for a consensus-based outcome by fostering an environment where all parties are heard and maintaining a neutral role.
- Once approved, elements of the TOR – responsibilities, member term lengths and competencies – would guide a call for nominees and selection by the HR Committee for Board approval.

Other options considered:

- The proposed TOR incorporates two rounds of feedback provided by the Governance Committee.
- Particular attention was paid to ensuring continuity in the task force's membership throughout the duration of the governance review.

- Thorough consideration was also given to including a representative of the President's Group and it was agreed that feedback from the Presidents Group would be most effectively gathered at their meetings.

Risks

- That roles and responsibilities captured in the TOR are unclear and lead to a lack of accountability, scope creep, and ineffective decision making.
- That the required task force composition and competencies do not match the project's needs.

Financial implications

- Included in Engineers Canada's 2025 budget for Board approval in December 2024 is $70K for the governance review, most of which will be used to facilitate national consensus and provide expertise with oversight by the GR Task Force.
- Task force meetings and consultations will be held virtually or in person according to the needs of the task force. Efforts will be made to minimize expenses. For example, meetings may be held in conjunction with a Board meeting.

Benefits

- A task force will be able to conduct a deep dive into the issues under consideration in the governance review on behalf of the Board and support the Board in its decision making. In so doing, the Board will effectively manage the review while still allowing time on its agenda to address its other fiduciary duties.

Consultation

- The HR Committee was consulted regarding the composition section of the TOR.

Next steps (if motion approved)

- A call for expressions of interest to serve on the task force will be issued by the HR Committee Chair and remain open for two weeks.
- The HR Committee will review the expressions of interest and recommend the task force membership for approval at the December 9, 2024, Board meeting.
- The inaugural meeting of the Governance Review Task Force will be scheduled for January 2025.

Appendices

- **Appendix 1:** Draft Governance Review Task Force terms of reference

Terms of reference

6.16 Governance Review Task Force

Date of adoption: Pending approval by the Board	*Review period: Triennial*
Date of latest amendment: N/A	*Date last reviewed: N/A*

1. Role

The Governance Review Task Force (GR Task Force) reports to the Engineers Canada Board of Directors and is charged with overseeing the governance review as set out in Engineers Canada's 2025-2029 strategic plan. The review will focus on the Board's composition and competencies; roles, operation and reporting of standing committees and direct reports; and voting procedures and observers' rights at the Board and Members' meetings.

Throughout the governance review, the task force will play a critical role in building consensus among interest holders by identifying key priorities, facilitating open dialogue, and developing recommendations, while maintaining a stance of neutrality to ensure fair representation of diverse viewpoints.

2. Responsibilities

The following describe the responsibilities of the GR Task Force:

A. Initiate the review

(1) Engage an experienced consultant to conduct the review.

(2) Work with the consultant to prepare for and communicate an inclusive and transparent review process and anticipate and mitigate associated risk.

B. Conduct consultations & benchmark analysis

(3) Review and approve the development of a consultation plan, which should include objectives, a list of interest holders, tactics and timelines, in accordance with Board policy 7.11, *Consultation*.

(4) Review and circulate to the Board and/or any other applicable interest holders the findings report prepared by the consultant.

C. Identify solutions

(5) Report any findings and potential options to address the findings to the Board.

(6) Provide guidelines to the consultant on the Board's direction.

D. Consult on potential solutions and build consensus

(7) Confirm tactics for the next phase of the governance review, including a plan to consult on the potential solutions. Seek input from Board committees and task forces, as needed.

(8) Review with the consultant the results of the consultations on potential solutions.

(9) Review the consultant's recommendations report that will outline:

a) any suggested changes to the bylaw for Member approval, and policies for Board approval; and

b) considerations for managing changes to the governance system.

(10) Propose revisions to the Bylaw to the Board for recommended approval by the Members, as required.

(11) Propose revisions to select policies to the Board for approval, as required.

E. Implement changes

(12) Review and approve a plan from the consultant to implement all recommendations supported by the Board, including those that require Member approval.

(13) Based on the findings throughout the review, the Board may ask the task force to perform duties in addition to those listed above.

(14) Upon approval of recommended changes by the Members, transition oversight of the implementation plan to the Governance Committee.

3. Authority

(1) As noted above, the Committee has the authority to engage, recruit, or contract internal and/or external resources to assist its work.

4. Composition

(1) Membership of the task force will be recommended by the HR Committee and appointed by the Engineers Canada Board. Reasonable effort will be made to achieve a diverse membership, as per Board policies 1.2, *Guiding principles*, and 6.1, *Board committees and task forces*.

(2) The task force will be chaired by a member selected by the group, on recommendation of the HR Committee, and composed of a maximum of six (6) members from different jurisdictions, small and large, through a combination of:

a) a minimum of three (3) and no more than four (4) Directors,

b) either or both the President-Elect or/and President, and

c) a representative from the CEO Group.

5. Competencies

(1) Collectively, the task force should have the following knowledge and expertise in:

a) Not-for-profit governance
b) The evolution of Engineers Canada's governance system, especially the elements identified as part of the governance review
c) Interest holder engagement (consultation, communication, negotiation, compromise and relationship building)
d) Consensus building
e) Change management

6. Term

(1) The governance review is expected to take up to two years. To maintain consistency throughout the governance review, it is essential for the task force to remain intact until all responsibilities outlined are completed.

(2) Members and the Chair will be appointed for an initial two-year term that may be renewed on an annual basis, if needed.

(3) Should a member resign, terminate or otherwise leave from the task force, the Board may find a replacement member in accordance with this policy. Each member shall comply with the Board's policies, as amended from time to time.

(4) The task force will be stood down either after:

a) Completion of the responsibilities listed herein, or

b) Upon the discretion of the Board.

7. Modus operandi

(1) Quorum for any task force meeting is 50 percent of the members plus one.

(2) The task force will be supported by the Manager, Governance and Board Services.

BRIEFING NOTE: For decision

Board policy updates	4.5
Purpose:	To approve revisions to existing Board policies
Link to the Strategic Plan/ Purposes:	Board responsibility: Formulates and periodically reviews Board policies that align with the organization's values and guide decision making.
Link to the Corporate Risk Profile:	Decreased confidence in the governance functions (Board risk)
Motion(s) to consider:	*THAT the Board, on recommendation of the Governance Committee:* *a) approve revised Board policy 7.7, Investments* *b) rescind the following Board policies* *i. 6.14, Collaboration Task Force terms of reference* *ii. 6.15, Strategic Planning Task Force terms of reference*
Vote required to pass:	Two-thirds majority
Transparency:	Open session
Prepared by:	Joan Bard Miller, Manager, Governance and Board Services
Presented by:	Sophie Larivière-Mantha, Chair of the Governance Committee

Problem/issue definition

- The Governance Committee (GC) reviewed five (5) Board policies at its June 17 meeting. The committee identified revisions to one (1) policy and recommended that two (2) others be rescinded.

Proposed action/recommendation

- That the Board review and approve the proposed revisions to Board policy 7.7, *Investments*, presented in Appendix 1. The revisions aim to illustrate Engineers Canada's commitment to responsible investing through Environmental, Social and Governance (ESG) funds, while still allowing an appropriate degree of flexibility for investment managers.
- That the Board rescind the terms of reference for the two task forces that were stood down at the June 17, 2024, Board meeting (Motions 2024-06-3D and 2024-06-4D):
  - Board policy 6.14, *Collaboration Task Force terms of reference*
  - Board policy 6.15, *Strategic Planning Task Force terms of reference*

Other options considered

- Members of the GC were assigned one policy to review in detail, with proposed revisions by staff, in advance of its June 17, 2024, meeting. GC members then had the opportunity to propose further revisions to the committee for discussion.
- Through its review, the Governance Committee determined that no revisions are required to the following policies that were considered as part of their regular review period:
  - *1.1, History*

- *5.1, Relationships with the engineering regulators*

Risks

- Operating without clear and up-to-date policies puts Directors and the organization at risk in terms of compliance and the transfer of corporate knowledge. This risk is mitigated, in part, through regular and ongoing policy reviews.

Financial implications

- None of the proposed policy revisions have budgetary implications.

Benefits

- The proposed revisions aim to enhance the existing policies so that the Board and its key stakeholders have access to clear policies that govern Engineers Canada.

Consultation

- In addition to a preliminary review conducted by Engineers Canada's governance staff, Board policy 7.7, *Investments,* was reviewed by the FAR Committee at its meetings on February 26 and May 9, 2024.

Next steps

- Pending Board approval, the policy manual will be updated to include the revised policies.

Appendix

- **Appendix 1**: Marked-up (track change) versions of the policies.

7 Board policies

7.7 Investments

Date of adoption: February 24, 2021 (Motion 2021-02-7D) *Review period: Biennial*
Date of latest amendment: September 29, 2022 (Motion 2022-09-4D) *Date last reviewed: September 29, 2022*

7.7.1 Investment objectives

(1) Engineers Canada has a goal of establishing a well-diversified investment portfolio with a focus on responsible investing, which will be managed to ensure preservation of capital while seeking moderate growth. Any funds which are not required to carry out the short-term operations of Engineers Canada, for the purposes outlined in its Bylaws, articles, mission statement and Strategic Plan, shall be invested in accordance with this policy. Funds required for short-term operations will be held separately in highly liquid investments.

(2) Further, without limiting the scope of the above statement, the following considerations shall be taken into account:

a) The time horizon this portfolio will remain invested is long, at least ten (10) years;
b) The investment portfolio will provide medium-term capital preservation to meet cash flow requirements over the next 3 years. Engineers Canada will provide the investment advisor a report with medium-term cashflow requirements at a minimum, on a quarterly basis;
c) Most investments in this portfolio will remain liquid and quickly convertible to cash. However, a small portion of the portfolio will be invested in illiquid investments;
d) While Engineers Canada is concerned with preserving the value of the portfolio, it is understood that some short-term volatility could be encountered in order to achieve long-term performance objectives. As a result, a decrease in portfolio value of ~~fifteen percent (15%) to~~ twenty percent (20%) can be tolerated provided that these decreases are reflective of general market conditions;
e) Engineers Canada is committed to meaningful investments ~~investing~~ in environmental, social and governance (ESG)-focused funds, when and to the extent it makes sense to do so;
f) Engineers Canada is tax-exempt as defined under the *Income Tax Act*; and,
g) There are no legal constraints or preferences unique to Engineers Canada that will impact the investment management of this portfolio.

Commented [JB1]: Wording proposed based on the FAR Committee's discussion on February 26, 2024, to complement enhanced wording at 7.7.1(1)(e).

Commented [JB2]: Recommended by the Governance Committee that the maximum amount not be reflected in a range.

Commented [JB3]: Revision proposed by the FAR Committee on February 26, 2024, to illustrate Engineers Canada's commitment to responsible investing while allowing an appropriate degree of flexibility for investment managers.

7.7.2 Asset mix guidelines

The following asset mix guidelines shall be followed in order to achieve moderate, consistent returns. Should market conditions and/or cash withdrawals cause the portfolio to be outside the following ranges, the investment manager will undertake steps to realign the portfolio within a reasonable period of time.

Asset Class	Minimum Allocation (%)	Neutral Allocation (%)	Maximum Allocation (%)
Cash	10	20	25
Fixed Income	25	35	45
Equity	30	40	60
Canadian Equity	5	10	15
U.S. Equity	5	10	15
International Equity	5	10	15
Global Equity	5	10	15
Alternative	0	5	10

7.7.3 Monitoring performance and reporting

The following Benchmarks shall be used in assessing the overall performance of the portfolio:

Asset Class	Asset Weight (%)	Benchmark
Cash	20	FTSE Canada 30 Day T-Bill
Canadian Fixed Income	35	FTSE Canada Universe Bond Index
Canadian Equity	10	S&P/TSX Capped Composite TR
U.S. Equity	10	S&P 500 Index TR
International Equity	10	MSCI EAFE
Global Equity	10	MSCI World (Net)
Alternative	5	Alternative Equity

7.7.4 Servicing and reporting

The investment manager will meet with the CEO, the ~~Director, Finance~~Chief Financial Officer, and the chair of the FAR Committee at least annually (or more frequently, if requested) to discuss the portfolio returns and to reconfirm investment objectives. The investment manager will also provide consolidated reporting reflecting the combined assets of the portfolio on a quarterly basis.

6 Engineers Canada Board committees and task forces

6.14 Collaboration Task Force terms of reference

Commented [JBM1]: Given that the task force has completed its mandate and the Board will be asked to stand it down on June 17, 2024, it is recommended that this policy be rescinded.

Date of adoption: February 25, 2022 (Motion 2022-02-6D) *Review period: Triennial*
Date of latest amendment: February 25, 2022 (Motion 2022-02-6D) *Date last reviewed: February 25, 2022*

6.14.1 Purpose and responsibilities

(1) The Regulators have asked Engineers Canada to undertake a strategic priority to *Strengthen collaboration and harmonization* (on page 6 of this pdf). This strategic priority will seek to increase harmonization of regulatory practices across Canada by defining Engineers Canada's specific mandate in terms of harmonization and identifying areas for future harmonization.

(2) A task force of the Engineers Canada Board is required to provide advice and feedback to staff regarding key external-facing documents, messaging, and interactions with Regulators.

(3) The Collaboration Task Force will be struck to provide advice and feedback to Engineers Canada staff on:
   a) A position paper on collaboration and harmonization;
   b) Consultations with Regulators on the position paper;
   c) The decision of whether or not to pursue a signed collaboration statement (based on the results of the Consultation); and,
   d) The content of the collaboration statement

(4) The goal of the strategic priority is that Engineers Canada has a clear mandate and key focus areas for harmonization. The task force will contribute by overseeing the investigation into Engineers Canada's mandate for harmonization from the Regulators including:
   a) the extent of harmonization that is desired;
   b) the areas of regulation that can be harmonized; and
   c) the role of Engineers Canada in harmonization efforts.

6.14.2 Authority

(1) The task force will exercise its authority as set out in these terms of reference and will do so with the support of the Board and staff.

6.14.3 Composition and term

(1) The task force will be chaired by a member selected by the group and will be composed of no more than six (6) Directors, each from a different Regulator. The Directors shall represent a diversity of Regulators by size.

(2) The members shall be either in their first term on the Board (with a reasonable probability of reappointment), or in their second term, as long as that term extends to at least 2024. This is to ensure that all task force members will be Directors for the full life of the task force's mandate.

(3) The task force will be stood down either after:
   a) a collaboration statement is signed by all Regulators (expected to be in June 2024), or
   b) when Consultations on the position paper reveal that no such statement is achievable (completion of all Consultations is expected in October 2023).

6.14.4 Modus operandi

(1) Correspondence between task force members shall be done by email, copied to all members.

(2) The task force will meet via virtual meetings and hold up to four (4) face-to-face meetings during the term of the task force.

6.14.5 Resources

(1) The task force will be supported by the Manager, Regulatory Liaison. A consultant will also be employed to advise on the development of a collaborative process for Consultations.

6 Engineers Canada Board committees and task forces

6.15 2025-2027 Strategic Planning Task Force terms of reference

Commented [JBM1]: Given that the task force has completed its mandate and the Board will be asked to stand it down on June 17, 2024, it is recommended that this policy be rescinded.

Date of adoption: February 25, 2022 (Motion 2022-02-5D) *Review period: Triennial*

Date of latest amendment: February 25, 2022 (Motion 2022-02-5D) *Date last reviewed: February 25, 2022*

6.15.1 Purpose and responsibilities

(1) The rationale for the Strategic Plan is articulated in Board policy 1.4, *Strategic Plan*, as follows:

> *"This Strategic Plan is the basis for monitoring the performance of the CEO and the chairs of the Accreditation and Qualifications Boards.*
>
> *The purpose of strategic planning is to document the Board's direction and the outcomes that it wants the organization to achieve. The Strategic Plan must consider the current and future environment, the relationship that the organization wants to have with Key Stakeholders, risks and the organization's risk tolerance, and how the organization intends to address important stakeholder needs. In the end, the Strategic Plan must identify the programs through which the outcomes are to be achieved.*
>
> *A Strategic Plan will create clarity and commitment, provide consistent and firm direction, and assist in prioritization decisions."*

(2) The 2025-2027 Strategic Planning Task Force will be struck to:

a) Provide guidance and general advice to the CEO on the development of the 2025-2027 Strategic Plan;

b) Review and approve (with revisions if necessary) the plan for the development of the 2025-2027 Strategic Plan;

c) Facilitate the achievement of key milestones by reviewing documents and recommendations between Board meetings, in preparation for final review by the Board as a whole;

d) Review and approve the key deliverables in each phase of the project; and,

e) Ensure the Board is kept up-to-date on the status of the strategic planning process, at a minimum as a standing agenda item at every Board meeting.

6.15.2 Authority

(1) The task force will exercise its authority as set out in these terms of reference and will do so with the support of the Board and staff.

6.15.3 Composition and term

(1) The 2025-2027 Strategic Planning Task Force will be comprised of:

a) The individuals holding offices as President-Elect, President, and Past President over each year of the task force's mandate; and,
b) Three (3) other Directors, meeting the following criteria:
   i. Either in their first term on the Board (with a reasonable probability of reappointment), or in their second term, as long as that term extends to at least 2025.
   ii. Each member is from a different jurisdiction.

(2) The Director elected President-Elect in 2022 shall chair the task force.

(3) The 2025-2027 Strategic Planning Task Force will be stood down following Members' approval of the 2025-2027 Strategic Plan. This is expected to occur at the 2024 Annual Meeting of Members, resulting in the task force being stood down in June 2024.

6.15.4 Modus operandi

(1) The task force will meet approximately eight (8) times over the term of the task force.

(2) Meetings will take place virtually and face-to-face if schedules align with in-person Board meetings.

6.15.5 Resources

The task force will be supported by the CEO and the Manager, Strategic and Operational Planning.

BRIEFING NOTE: For information

Canadian Engineering Accreditation Board (CEAB) draft work plan	4.7a
Purpose:	To inform the Board of the planning activities of the CEAB in 2025, for final approval in December 2024
Link to the Strategic Plan/Purposes:	Core purpose 1: Accrediting undergraduate engineering education programs Core purpose 7: International mobility
Link to the Corporate Risk Profile:	Decreased confidence in the governance functions (Board risk)
Prepared by:	Mya Warken, Manager, Accreditation, and Secretary, CEAB
Presented by:	Jeff Pieper, Chair, CEAB

Background

- The Canadian Engineering Accreditation Board (CEAB) accredits undergraduate engineering programs and is accountable for parts of the work to manage risks and opportunities associated with mobility of work and practitioners internationally.
- The CEAB Executive Committee drafts its workplan over the summer months and brings a proposal to the September CEAB meeting. A draft workplan is presented to the Engineers Canada Board at its October meeting for discussion and December meeting for approval.
- All major CEAB policy work has been paused while Strategic Priority 1.1 to *Investigate and Validate the Scope and Purpose of Accreditation* is underway. The priority's Path Forward Report is expected to be delivered to the Engineers Canada Board in December 2024.
- At its June meeting, the Board was presented with urgent policy work that must be undertaken to maintain the current accreditation system noting that the longer policy work is paused, the longer errors, flaws, and major inefficiencies in the accreditation system persist and go unaddressed. The CEAB was asked to present their proposed 2025 workplan at the next meeting of the Engineers Canada Board.

Status update

- The annual workplan is informed by:
    - Ongoing operational work (accreditation visits)
    - Feedback from EDC, CFES, and other interest holders
    - Results from the annual Accountability in Accreditation report
    - Changes to the engineering educational and/or accreditation environment
    - Direction from the Engineers Canada Board and the Strategic Plan
- Major CEAB policy work continues to be paused while the Strategic Priority to *Investigate and Validate the Scope and Purpose of Accreditation* is underway. While not formally defined, one can infer that 'Major policy work' is that which impacts accreditation criteria. No changes to criteria are being contemplated in the proposed workplan.

- Work focussing on improving documentation and quality within CEAB continues, with a focus on training.

Next steps

- The CEAB will discuss the draft at their September 13-14, 2024 meeting. The CEAB Chair will provide the Board with a verbal update on the outcomes of this discussion.
- The final 2025 CEAB work plan will be presented to the Board, for approval, at its December meeting.

Appendix

- **Appendix 1**: Draft 2025 CEAB work plan

CEAB work plan 2025

Item		
Accreditation decisions	**Visit date**	**Decision date (2025)**
Royal Military College (1 program)	October 27-29, 2024	June
Université du Québec à Rimouski (3 programs)	October 27-29, 2024	June
Concordia University (8 programs)	November 3-5, 2024	June
University of British Columbia (9 programs)	November 3-5, 2024	June
University of Ottawa (7 programs)	November 10-12, 2024	June
Université de Sherbrooke (2 programs)	November 10-12, 2024	June
Toronto Metropolitan University (8 programs)	November 10-12, 2024	June
Western University (4 programs)	November 17-19, 2024	June
York University (5 programs)	November 18-19, 2024	June
University of Calgary (6 programs)	November 24-26, 2024	June
McMaster University (8 programs)	November 24-26, 2024	June
University of Windsor (5 programs)	January 19-21, 2025	June
University of Guelph (7 programs)	January 26-28, 2025	June
Laurentian University (3 programs)	February 9-11, 2025	June
Queen's University (11 programs, including one new program)	February 9-11, 2025	June
Université du Québec à Trois-Rivières (1 program)	February 16-18, 2025	June
Conestoga College (1 program)	February 19-21, 2025	June
Université du Québec en Abitibi-Témiscamingue (3 programs)	February 23-25, 2025	June
University of Ontario Institute of Technology (3 programs)	March 2-4, 2025	June
Algonquin College (1 new program)	June 8-10, 2025	September
Seneca College (1 new program)	June 11-13, 2025	September
International monitoring	**Participant(s)**	**Date**
Provision of advice to the delegation to the Washington Accord meetings	CEAB members	June 8-13 Merida, Mexico
Criteria, policies, and procedures	**Responsible**	**Due date**
Implement Tandem for accreditation (Engineers Canada's new web-based data management system) for the 2024/2025 visit cycle.	Policies and Procedures Committee CEAB members	Ongoing
Accountability in Accreditation (AinA) • Study and prioritize the findings from the 2024 report • Collect data for the 2025 report	AinA Committee P&P Committee CEAB	Ongoing
Consider final recommendations to close gaps in the *Interpretive statement on curriculum content for options and dual discipline programs*.	P&P Committee	February *(continued from 2024)*
Approved revised matrix for decision making: Risk based trajectory decision and associated policies, procedures, and templates.	P&P Committee CEAB	June *(continued from 2024)*
Study trends in Graduate Attribute and Continual Improvement criteria compliance and findings to identify where the CEAB should take action.	CEAB	December *(continued from 2024)*
Consider adding a new clause to "Appendix 1" of the CEAB Accreditation Criteria and Procedures book, "Regulations for granting transfer credits," to stipulate that up to 112 Accreditation Units (AUs) can be allocated without a validation procedure for complementary studies at 3-year technical CEGEP programs.	P&P Committee CEAB	June
Action recommendations from the CEAB thought paper: *Reconsideration of Specific AUs in the assessment of engineering programs*.	P&P Committee CEAB	December

	Engineers Canada Board	
Reconcile the Questionnaire, GA/CI rubrics, and accreditation criteria regarding the necessity for programs to classify the instructional level of content relating to one or more graduate attribute in each course across progression categories introductory (I), intermediate development (D), and advanced application (A).	P&P Committee CEAB	December
Develop more robust policies and procedures related to 'focused visits.'	P&P Committee CEAB	December
2025-2029 Strategic plan	**Responsible**	**Due date**
Monitor and contribute to the *Realizing accreditation and academic assessments* strategic direction when/how requested.	CEAB members	Ongoing

BRIEFING NOTE: For discussion

Accreditation system interventions in support of 30 by 30	4.7b
Purpose:	To seek the Board's direction on next steps regarding the CEAB's recommendations on how the accreditation process can incorporate the goals of the 30 by 30 initiative.
Link to the Strategic Plan / Purposes:	Core purpose 1: Accrediting undergraduate engineering education program Strategic priority 3: Recruitment, retention, and professional development of women in the engineering profession. Core purpose 9: Promoting equity, diversity, and inclusion in the profession that reflects Canadian society. Strategic Priority 1.1: Investigate and validate the purpose and scope of accreditation
Link to Corporate Risk Profile:	Decline in the value of accreditation (Board risk) Engineering is unwelcoming and exclusionary to under-represented people in engineering (Board risk)
Transparency:	Open session
Prepared by:	Roselyne Lampron, Accreditation program advisor Mya Warken, Manager, Accreditation and CEAB Secretary
Presented by:	Jeff Pieper, Chair, CEAB

Background

- At its Fall 2019 meeting, the Engineers Canada Board directed the CEAB to develop appropriate ways within the accreditation process to incorporate the goals of the 30 by 30 initiative (motion 5780).
- A CEAB working group was struck, including members from the CEAB, Engineers Canada staff, and two members nominated by Engineering Deans Canada (EDC). The Working Group produced draft recommendations in June 2021 and held a national consultation in 2022.
- At their February 2024 meeting, the CEAB endorsed the Working Group's consultation report which includes 19 recommendations for the accreditation process to incorporate the goals of the 30 by 30 initiative.

Problem/issue definition

- The CEAB is seeking the Board's direction for next steps given:
  - EDC has expressed significant objection, as noted under the Consultation section below.
  - Major CEAB policy work is currently paused until the outcomes of the *Futures of Engineering Accreditation* (FEA) project are known (Strategic Priority 1.1).
  - The International Engineering Alliance (IEA) Graduate Attributes and Professional Competencies Framework (GAPC Framework) was revised in 2021 to emphasize graduate knowledge and awareness of ethics, diversity, and inclusion (EDI). To remain a signatory to the Washington Accord, Engineers Canada's accreditation system must demonstrate ongoing

substantial equivalence to the GAPC Framework. Two recommendations related to revisions to the Graduate Attributes could close gaps between the CEAB Graduate Attributes and the IEA benchmark.

Proposed action/recommendation

- The CEAB's 19 recommendations on appropriate ways to incorporate the goals of the 30 by 30 initiative within the accreditation process span accreditation criteria, policies, and processes and include:
  - Revisions to criteria related program leadership, experience and competence of faculty members, and hiring and recruitment practices (Recommendations 1 and 2);
  - Revisions to CEAB Graduate Attributes by changing the focus of "Professionalism" to "Professionalism and ethics" and changes the focus of "Ethics and Equity" to "Equity, Diversity, and Inclusion" (Recommendations 3 and 4);
  - Updates to various interpretive statements on Graduate Attributes, Accreditation Unit categories, and continual improvement to incorporate a focus on equity, diversity, and inclusion (Recommendations 5, 7, and 8).
  - Updates to the example interview questions for accreditation visits (Recommendation 9, 10, 11, 12, 13, and 14).
  - Creation of a position statement on issues related to recruitment and retention (Recommendation 15).
  - Updates to policies and procedures related to the composition and training of volunteer visiting team members (Recommendations 16 and 17).
  - Creation of Engineers Canada definitions on 'equity', 'diversity', and 'inclusion' and a critical review of Engineers Canada's Board Policy 4.3 - Code of Conduct (Recommendations 6 and 18).
  - Establishment of a library of resources on EDI best practices that that institutions could consult (Recommendation 19).
- The recommendations can be found in Appendix 1 on pages 14-20.

Other options considered

- The Engineers Canada Board could consider implementing all or some of the recommendations as presented.
- The Engineers Canada Board could consider not implementing any of the recommendations.

Risks

- Implementing the recommendations with strong opposition from EDC could negatively impact the relationship with key accreditation system interest holders.
- Not implementing the recommendations dismisses findings from the Working Group's environmental scan and learnings with identified accreditation systems as potential drivers of equity, diversity, and inclusion.
- Not implementing the recommendations jeopardizes the standing of Engineers Canada's accreditation system as a whole regarding its views on EDI relative to students, regulators, and the

public. That is, the CEAB will become considered as behind in its approach to modern thinking on these issues.

- Not implementing the recommendations introduces risk to Engineers Canada's Washington Accord signatory status if gaps are not closed between the current CEAB Graduate Attributes and the IEA benchmark emphasizing graduate knowledge and awareness of ethics, diversity, and inclusion (EDI).

Financial implications

- None. Any action would be undertaken by existing resources.

Consultation

- A national consultation was conducted in 2022 leading to revisions to the Working Group's initial recommendations. The attached consultation report includes the final recommendations.
- External parties were consulted on the Working Group's recommendations. Verbatim feedback collected through the consultations is publicly available on pages 32-86 of the Working Group's consultation report.
- EDC's feedback can be summarized as follows:
  - Concerns were expressed about recommendations that are seen as an inappropriate incursion into matters outside the scope of accreditation.
  - EDC's position is that fundamental flaws were identified in the process followed by the Working Group in its formation, composition, and approach to creating the report.
  - EDC claims that there is a misalignment between the Working Group process and its recommendations with the 30 by 30 goals of achieving an inclusive engineering profession.
  - Given the points above, strong opposition was expressed against moving forward with any of the recommendations proposed by the Working Group.
  - A formal request was made to the Engineers Canada Board to suspend the national consultation process. The Board elected not to do so but requested that EDC's perspectives on the final Working Group recommendations be sought before they were presented to the CEAB and then to the Engineers Canada Board. In response to this request, the EDC provided the following feedback:

    "The Working Group has accurately summarized EDC concerns [...]. The revised recommendations appear to be predominately editorial in nature and do not reflect any meaningful reflection or changes based on the feedback received from EDC. HEIs are committed to action to improve equity, diversity and inclusion with respect to underrepresented groups in the engineering profession, including women, indigenous peoples and other equity-deserving groups."

Next steps

- The CEAB has completed their assigned task and have endorsed the consultation report which contains 19 recommendations on how the accreditation process can incorporate the goals of the 30 by 30 initiative.
- The CEAB is seeking the Board's direction on next steps.

Appendix

- **Appendix 1:** Key portions of the Report on the 2022 consultation on the CEAB 30 by 30 Working Group Report

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Report on the 2022 consultation on the CEAB 30 by 30 Working Group Report

(March 2024)

Contents

Suggested citation (APA 7th edition):

Canadian Engineering Accreditation Board 30 by 30 Working Group. (2024). *The CEAB 30 by 30 Working Group Report*. Engineers Canada, Canadian Engineering Accreditation Board.

1. Introduction

1.1. Description of the issue requiring consultation

Engineers Canada is working to increase the representation of women within engineering through its 30 by 30 initiative. This initiative has a goal of raising the percentage of newly licensed engineers who are women to 30 per cent by the year 2030. Thirty per cent is universally held as the tipping point for sustainable change—reaching 30 by 30 will help drive the shift in the overall membership of the engineering profession as more and more women continue to enter the profession.

As such, Engineers Canada's Strategic Priority 3: Recruitment, retention, and professional development of women in the engineering profession highlights the need to drive cultural change in the engineering profession in order to attain the goal of "30 by 30".

1.2. The CEAB 30 by 30 Working Group

At their Fall 2019 meeting, the Engineers Canada Board approved the Strategic Priority's sub-strategy, which included direction to the CEAB to develop appropriate ways within the accreditation process to incorporate the goals of the 30 by 30 initiative. In response, the CEAB struck the CEAB Working Group to Respond to the Engineers Canada "30 by 30" Initiative (Working Group). As the Working Group moved through the task assigned to it by the CEAB, it became apparent that the goal of the 30 by 30 initiative is one component of a larger, global movement towards the adoption of the principles of equity, diversity and inclusion (EDI). As such, many of the initial recommendations put forward by this group speak explicitly to EDI with the implicit understanding that the increased representation of women in the engineering profession is related to the larger principles of EDI. The recommendations were intended to be one part of a larger, on-going initiative to change the culture of the engineering profession to make it more inclusive for women and other marginalized groups.

As part of the Working Group mandate, possible areas of intervention were identified as position statements, accreditation criteria, interpretive statements, volunteer training, and CEAB practices or processes. Upon further review, the members of the Working Group identified their ability to make recommendations in the following areas:

1) The CEAB Criteria and Procedures
2) Supporting documentation for the CEAB Criteria and Procedures
3) The interpretive statements
4) Encouraging recruitment and retention to the engineering profession
5) Volunteer management
6) General recommendations

The Working Group was also asked to assess how other professional education accreditation bodies (both engineering and not, and both domestic and international) are addressing similar calls to action. The purpose of this exercise was to identify good practices in this area by accreditors in order to make recommendations that are in line with industry standards.

The CEAB 30 by 30 Working Group Report provided:

a) A summary of the issue at hand from the perspective of HEIs, visiting teams, CEAB members, regulators and other interest holders in the accreditation system;
b) A summary of accreditation practices around diversity and inclusion;
c) Recommendations on how Engineers Canada's accreditation system can support the 30 by 30 initiative;
d) Suggestions of metrics that will allow for assessment of the success of proposed recommendations; and
e) An implementation plan to support any recommended changes.

The Working Group was composed of the following members.

Members

- Emily Cheung, CEAB Member representing industry
- Mina Hoorfar, nominated by Engineering Deans Canada (from Sept. 2020 to Sept. 2022)
- Jeff Pieper, CEAB Member, Chair
- Amy Hsiao, nominated by Engineering Deans Canada
- Tim Joseph, Engineers Canada Director appointee
- Anne-Marie Laroche, CEAB Member, member-at-large to the Working Group
- Jeanette Southwood, Engineers Canada Senior Leadership Team representative (assisted by Cassandra Polyzou, Engineers Canada Manager, Diversity, Equity and Inclusion)
- Ramesh Subramanian, CEAB Member representing academia

Secretariat support

- Elise Guest
- Roselyne Lampron

The Working Group members met once every two weeks between September 2nd and December 8th, 2020 to undertake their work. In addition, members of the Working Group self-identified specific areas of interest and split into sub-groups to develop suggestions that were then presented to the entire Group for consideration, adoption or adaptation; these suggestions form the basis of the recommendations the Working Group is making to the CEAB.

2. 2022 Consultation scope and methodology

2.1. Consultation objectives

The primary objective of the consultation on the CEAB 30 by 30 Working Group Report was to:

1. Inform interest holders of the CEAB's efforts to contribute to Engineers Canada's 30 by 30 initiative.
2. Investigate stakeholder reaction to the report recommendations.
3. Identify recommendations that should be implemented and those that should not move forward for implementation, and make improvements to suggested changes/metrics before implementations.
4. Identify barriers to change to any of the report recommendations.
5. Develop a reasonable implementation plan that reflects the diverse viewpoints of interest holders.
6. Collect feedback on the overlap between 30 by 30 initiatives and wider equity, diversity and inclusion efforts.

The consultation process had four guiding principles:

1. Be inclusive of all relevant stakeholder groups.
2. Be transparent.
3. Be procedurally fair.
4. Encourage feedback (both positive and constructive).

2.2. Consultation approach

At their June 5-6, 2021 meeting, the Accreditation Board directed the CEAB 30 by 30 Working Group to consult interest holders on the recommendations of their report (Appendix 1) regarding possible interventions in the accreditation system to support the goal of the 30 by 30 initiative. In keeping with Engineers Canada's consultation process (Appendix 2), the consultation team used a virtual focus group methodology accompanied by a general call for comments. Focus groups allowed the consultation team to focus on the specific questions of interest with targeted interest holders of accreditation.

The consultation planning team included:

- Elise Guest, Accreditation Program Advisor
- Anne-Marie Laroche, CEAB 30 by 30 Working Group Member
- Jeff Pieper, Chair, CEAB 30 by 30 Working Group Chair
- Mya Warken, Accreditation Manager

To standardize the consultation meetings as much as possible, the consultation planning team developed in both languages, French and English:

- An invitation to participate (Appendix 3) which described the process by which stakeholder feedback would be collected, how it would be used, and that feedback would be summarized and fed back to interest holders.
- A standard-issued presentation slide deck (Appendix 4) which was used at every consultation.
- A notification of consultation that was included in the Engineers Canada bi-weekly newsletter *Engineering Matters* and the monthly newsletter *Accreditation Matters*.
- Engineers Canada dedicated web page to inform readers about the consultation process and outcomes.
- The "CEAB 30 by 30 Working Group Report" was also used to provide an overview of the recommendations to those participating in the consultation.

The consultation period opened on May 2, 2022 and closed on August 31, 2022. All interest holders were invited to participate in the consultation process via webinars, pre-scheduled drop-in sessions and a general call for comments.

1) Introduction to the consultation process - Webinar

The webinars, English and French, provided an overview of the report development process, highlighted the recommendations contained within the report, and defined the ways by which each stakeholder group would be consulted. The webinars were recorded and shared on the Engineers Canada website.

The English introduction webinar was held on May 12th. The French introduction webinar was held on May 19th.

2) Drop-in sessions

Interest holders were invited to attend one of three drop-in sessions on Zoom to provide their feedback on the recommendations to the members of the Working Group. Breakout rooms were utilized to ensure effective and fulsome conversations. Each session supported both French and English participants. The drop-in sessions were held on June 23rd, July 25th, and August 31st.

3) Webinar meeting with organization officials

Interest holders were invited to reach out to the Secretariat if they wished to organize a web meeting to discuss the CEAB 30 by 30 Working Group Report.

4) General call for comments

Interest holders were invited to submit written feedback.

2.3. Website statistics

Page/Item	Unique page views	Average time spent	Number of downloads
CEAB 30 by 30 Working Group Consultation webpage	385	4:06	N/A
Consultation sur le Rapport du Groupe de travail 30 en 30 du BCAPG (site Internet)	106	4 :07	N/A
CEAB 30 by 30 Working Group Report	N/A	N/A	102
Rapport du Groupe de travail 30 en 30 du BCAPG	N/A	N/A	28

2.4. Interest holders

The following interest holders were invited to participate in the consultation:

- CEAB members
- CEQB members
- Canadian Federation of Engineering Students (CFES)
- Engineering Deans Canada (specific focus on DLC)
- Engineering Deans Canada (via the DLC), with a request for Deans to share with faculty
- A subgroup of Engineering Deans Canada that consisted of female-identifying Deans
- Engineering regulators (via the CEO and National Admissions Officials Groups)
- Higher Education Institutions (HEIs)
- National Admissions Officials Group (NAOG)
- The Graduate Attribute & Continuous Improvement Professionals Network
- Engineers Canada 30 by 30 Champions Network

2.5. Key questions asked of each interest holder

Each stakeholder was asked to respond to the following questions:

1. Are the recommendations made by the 30 by 30 Working Group appropriate interventions in the accreditation system?
2. Are the metrics identified for each recommendation appropriate?
3. Are there any ways that accreditation could support the goals of the 30 by 30 initiative that have not been included in the Working Group's recommendations?
4. What are the ramifications on your program/for you of the 30 by 30 Working Group's recommendations should they be implemented?
5. What risks exist in implementing any/all of the 30 by 30 Working Group's recommendations? How can these risks be mitigated?

3. Findings

3.1 List of interest holders that provided feedback

The table below lists the interest holders that provided feedback, the method by which feedback was provided, and the date it was received.

List of interest holders that provided feedback

Interest holders	Feedback method	Date received
30 by 30 Champions Post-Secondary Working Group, January 17, 2022		
Jeanie Wills 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Marcie Cochrane 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Mohamed El Daly 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Dena McMartin 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Phyllis Chong 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Heidi Pleog 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Alison Barrett 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Nika Zolfaghari 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Denise Stilling 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Karyn Hemsworth 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Margot Allain Belanger 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Nathalie Tufenkji 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Karen Cain 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Heather Moynihan 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Ana Jaramillo 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Catherine Niu 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Kathryn Atamanchuk 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022

Interest holders	Feedback method	Date received
Maria-Gracia Girardi 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Sandro Perruzza 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Jana Levison 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Svetlana Yanushkevich 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Daniela Constantinescu 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Kim Jones 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Mary Wells 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Jacqueline Stagner 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Shanleigh McKeown 30 by 30 Champion, Post-Secondary Working Group	Focus group	January 17, 2022
Canadian Engineering Accreditation Board Members (CEAB)		
Tara Zrymiak Canadian Engineering Accreditation Board	Letter	August 23, 2022
Paula Klink Canadian Engineering Accreditation Board	Letter	August 31, 2022
Canadian Federation of Engineering Students (CFES)	Letter	September 7, 2022
Drop-in session, June 23, 2022		
Jim Nicell Engineering Deans Canada, McGill University	Focus group	June 23, 2022
Zaineb Al-Faesly University of Ottawa	Focus group	June 23, 2022
Margaret Anne Hodges Canadian Engineering Qualifications Board	Focus group	June 23, 2022
Anja Lanz *Haakon Industries Ltd*	Focus group	June 23, 2022
Roni Khazaka National Research Council	Focus group	June 23, 2022
Drop-in session, July 25, 2022		
Jana Levison University of Guelph	Focus group	July 25, 2022
Damineh Akhavan De Havilland Aircraft of Canada Limited	Focus group	July 25, 2022
Anja Lanz Haakon Industries Ltd	Focus group	July 25, 2022
Catherine Tatarniuk Thompson Rivers University	Focus group	July 25, 2022

Drop-in session, August 31, 2022		
Mikhail Burke University of Toronto	Focus group	August 31, 2022
Pemberton Cyrus Canadian Engineering Accreditation Board	Focus group	August 31, 2022
Zoey Zhang Canadian Federation of Engineering Students	Focus group	August 31, 2022
Manu Gill British Columbia Institute of Technology	Focus group	August 31, 2022
Griffin Murdoch Canadian Federation of Engineering Students	Focus group	August 31, 2022
D'Andre Wilson-Ihejirka Brain Stem Alliance	Focus group	August 31, 2022
Mohamed El Daly Association of Professional Engineers and Geoscientists Alberta	Focus group	August 31, 2022
Pal Mann Engineers Nova Scotia	Focus group	August 31, 2022
Engineering Deans Canada (EDC)	Letter	August 29, 2022
Higher Education Institutions		
Conestoga College Submitted by Tony Thoma	Letter	September 25, 2022
McGill University Submitted by Jim Nicell	Letter	August 31, 2022
Université de Sherbrooke Submitted by Nathalie Roy	Letter	August 31, 2022
University of Manitoba Submitted by Marcia Friesen	Letter	August 12, 2022
University of British Columbia Submitted by James Olson	Letter	August 30, 2022
University of Saskatchewan Submitted by Suzanne Kresta	Letter	August 30, 2022
University of Ottawa Submitted by Jacques Beauvais	Letter	August 31, 2022
McGill University Submitted by Jim Nicell	Letter	August 31, 2022
Queen's University Submitted by Kevin Deluzio	Letter	August 31, 2022
University of Waterloo Submitted by Mary Wells	Letter	August 19, 2022
Individuals		
Ryan Huckle Conestoga College	Annotated report	September 1, 2022
Jason Grove	Letter	August 16, 2022

University of Waterloo		
Regulators		
Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS)	Annotated report	September 9, 2022
Engineers Nova Scotia Board of Examiners	Email	August 25, 2022
Women Deans of Engineering, July 15, 2022		
Debbie Roberts Engineering Deans Canada, University of Northern British Columbia	Focus group	July 15, 2022
Marcia Friesen Engineering Deans Canada, University of Manitoba	Focus group	July 15, 2022
Heather Sheardown Engineering Deans Canada, McMaster University	Focus group	July 15, 2022
Jane Goodyer Engineering Deans Canada, York University	Focus group	July 15, 2022
Marie-José Nollet Engineering Deans Canada, École de technologie supérieure	Focus group	July 15, 2022
Mary Wells Engineering Deans Canada, University of Waterloo	Focus group	July 15, 2022

Input was received from 67 individuals, HEIs, organizations and regulatory bodies. In total, approximately 366 lines of feedback were generated via the consultation process.

3.2 Summary of consultation feedback

Each line of feedback was analyzed by the members of the Working Group. Feedback was grouped by source and by recommendations of the Working Group report to which it applied. Appendix 5 includes all feedback items received, organized by recommendation(s) to which they apply. A summary of statistics of this data grouping is presented below.

Proportion of feedback received from different sources of interest holders:

- 33% (122) of the feedback lines were from general sources as seen in the open webinar and drop-in sessions. These include professional engineers from industry, some students and EITs, some regulators and some faculty members from academia.
- 20% (74) the feedback lines were from HEIs as collated through specific written feedback directly from the HEI source. These include faculty delivering curriculum to students and administrative faculty such as Associate Deans and similar positions.
- 16% (60) of the feedback lines were from EDC members through direct written feedback.
- 13% (48) of the feedback lines were from EDI/30x30 champions primarily through regulator appointments.
- 9% (33) of the feedback lines were from regulator staff and representatives.
- 5% (18) of the feedback lines were from CEAB members through written communication.
- 3% (11) of the feedback lines were from students primarily through the CFES.

Proportion of feedback items received grouped by recommendations of the Working Group report to which it applied:

- 43% (197) of feedback items were general comments about the Working Group report.
    - This large category comprises comments that were not clearly related to any particular section of the Working Group report nor any specific recommendation.
    - This data can be further subdivided as:
        - 152 overarching comments.
            - Of these, essentially half were of a positive tone in support of the Working Group efforts, while the remaining half were of the opposite view.
        - 27 comments were related to aspects of EDI and how they interact with the report content.
        - 4 comments were on the concept that advancing 30 by 30 initiatives may place an undue burden on certain female-identifying individuals already within the systems. For example, women may be called on to participate in more committee work than comparable male counterparts.
        - 4 comments related to a need for training of CEAB members in EDI and 30 by 30.
        - 3 comments specifically noted the inappropriate scope reach of the recommendations in the report relative to the goals of accreditation.
        - 2 comments noted that there was a lack of specificity in the recommendations.
        - 2 comments pointed out that the risks of implementing 30 by 30 initiatives such as suggested in the report were not analyzed with respect to the risks involved.
        - There were 1 comment each on the topics of indigenous peoples, sharing of best practices and industry/HEI connections.
- 7% (34) of feedback items were about recommendation 4 - Change Graduate Attribute 10 from “Ethics and Equity” to “Equity, Diversity and Inclusion”.
- 6% (25) feedback items were about recommendation 6 - Engineers Canada to publish definitions of Equity, Diversity and Inclusion.
- 4% (19) feedback items were about recommendation 2 - Updates to experience and competence of faculty members to include EDI (Criterion 3.5.4).
- The remaining recommendations received 3% (15) and fewer of the feedback items.

Finally, Engineering Deans Canada offered their feedback during the national consultation process and on multiple instances during CEAB meetings and related accreditation gatherings. In their feedback on the role of the accreditation system in incorporating the goals of the 30 by 30 initiative, Engineering Deans Canada has expressed concern that this work will inappropriately increase the scope of accreditation and will be a use of accreditation as a policy tool to fulfill a broader mandate of Engineers Canada. While the EDC members collectively and individually support gender parity in the profession, they expressed that the recommendations run contrary to its intended goals. Also, they noted, accreditation is an incorrect avenue to achieving progress in this area. EDC comments note that movement within the accreditation system may be a response to recent trends in higher

education and will set a precedence for future trends which will create instability in the criteria and will jeopardize the ability to meet the criteria for their programs.

The feedback received from the Engineering Deans Canada regarding the CEAB 30 by 30 Working Group report and its recommendations can be summarized as follows:

- Fundamental flaws were identified in the process followed by the Working Group in its formation, composition, and approach to creating the report.
- A misalignment was noted between the Working Group process and its recommendations with the 30 by 30 goals of achieving an inclusive engineering profession.
- Concerns were expressed about recommendations that are seen as an inappropriate incursion into matters outside the scope of accreditation.
- Strong opposition was expressed against moving forward with any of the recommendations proposed by the Working Group.
- A formal request was made to the Engineers Canada Board to suspend the national consultation process.

The Engineers Canada Board chose not to suspend the national consultation process. The Working Group followed an Engineers Canada Board directive to ensure full consideration of the Engineering Deans Canada perspective, and, accordingly, the Working Group invited the EDC to review their revised report and resulting recommendations in light of the national consultation results before finalizing their recommendations for presentation to the CEAB.

Engineering Deans Canada's feedback on the Working Group revised recommendations

The report on the 2022 national consultation on the CEAB 30 by 30 Working Group Report was sent to the EDC chair in January 2024. In response, the EDC provided the following feedback:

- "The Working Group has accurately summarized EDC concerns included in section 3.2 of this report.
- The revised recommendations appear to be predominately editorial in nature and do not reflect any meaningful reflection or changes based on the feedback received from EDC.
- HEIs are committed to action to improve equity, diversity and inclusion with respect to underrepresented groups in the engineering profession, including women, indigenous peoples and other equity-deserving groups."

Lastly, EDC's position remains unchanged, and they reiterate the feedback summarized in section 3.2 of this report.

3.3 Revised recommendations

In light of the consultation findings, the Working Group members have revised the recommendations, which are presented in this section of the report. The revisions are made visible using track changes.

Recommendation 1: Updates to criterion 3.5.3 Leadership

It is recommended that the following addition be made to criterion 3.5.3 on leadership:

> The dean of engineering (or equivalent officer) and the head of an engineering program (or equivalent officer with overall responsibility for each engineering program) are expected to provide effective leadership in engineering education, **including the continual commitment to the promotion of equity, diversity and inclusion,** and to have high standing in the engineering community. They are expected to be engineers licensed to practice in Canada.

Metric: Improved satisfaction with awareness of EDI issues ~~in Engineers in training (EIT) candidates on their experiences while in programs from a survey done by regulators of which one portion could address 30 by 30, EDI and other culture of engineering programs issues.~~ in faculty, students and EITs where appropriate that would qualitatively reflect the promotion from the leadership as seen by internal groups within HEIs.

Recommendation 2: Updates to criterion 3.5.4 Experience and competence of faculty members

It is recommended that the following addition be made to criterion 3.5.4 on the experience and competence of faculty members:

> Faculty delivering the engineering curriculum within a program are expected to have a high level of expertise and competence, **demonstrate an understanding of~~, and~~ continual commitment to ~~, EDI, and to be dedicated to~~** the aims of engineering education and of the self-regulating engineering profession, which will be ~~judged~~ examined by the following factors:
>
> a. The level of academic education of its members.
>
> b. The diversity of their backgrounds, including the nature and scope of their non-academic experience.
>
> c. Their ability to communicate effectively.
>
> d. Their experience and accomplishments in teaching, research and/or engineering practice.
>
> e. Their degree of participation in professional, scientific, engineering, and learned societies.
>
> f. Their appreciation of the role and importance of the self-regulating engineering profession, and of positive attitudes towards professional licensure and involvement in professional affairs.
>
> **g. EDI as an aspect of recruitment and hiring practices of new faculty and instructors within a program.**

Metric: Improved satisfaction with EDI issues in EIT candidates on their experiences while in programs from a survey done by regulators of which one portion could address 30 by 30, EDI and other culture of engineering programs issues. This should show progression over a series of surveys to demonstrate increased awareness.

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[1] Where proposed changes to language are made, the change is identified using ~~Deleted~~ / **Added** text font colours and formatting.

Recommendation 3: Change Graduate Attribute 8 from "Professionalism" to "Professionalism and Ethics"

It is recommended that Graduate Attribute 8 be changed from "Professionalism" to "Professionalism and Ethics." The following is the proposed new wording:

> 8. Professionalism **and Ethics.** An understanding of the roles and responsibilities of the professional engineer in society, especially the primary role of protection of the public **demonstrating an ability to recognize and act ethically and apply professional ethics.**

It is further recommended that Appendix 8, the *Interpretive statement on graduate attributes* be updated to include the following definitions of the concepts of professionalism and ethics:

> ***Professionalism***
> **An understanding of the roles and responsibilities of the professional engineer in society, especially the primary role of protection of the public resulting in readiness for the professional environment.**
>
> ***Ethics***
> **An ability to understand, recognize, and apply professional concepts ~~that include~~ ~~but~~in~~but~~ in an inclusive and safe environment that may include but not be limited to duty, fairness, respect, risk of harm, honesty, diligence, trustworthiness, confidentiality, and transparency.**

Metric: Information gathered from a survey of stakeholders that this revised Graduate Attribute and associated definitions and interpretations are helpful and useful in creating strong programs. ~~-~~This survey can be done in conjunction with or as an addition to normal feedback gathered from HEI ~~programss~~programs after their visit.

Recommendation 4: Change Graduate Attribute 10 from "Ethics and Equity" to "Equity, Diversity and Inclusion"

It is recommended that Graduate Attribute 10 be changed from "~~"~~Ethics and Equity" to "Equity, Diversity and Inclusion." The following is the proposed new wording:

> 10. **Equity, Diversity, and Inclusion. Demonstrate an understanding of equity as well as diversity at individual, interpersonal, organizational, educational, professional, and societal levels, with an ability to create and work in inclusive people groups and environments and consider accessibility as a factor in creating inclusion, diversity and equity.**

It is further recommended that Appendix 8, the *Interpretive statement on graduate attributes* be updated to include a definition of equity, diversity and inclusion (see recommendation 6). Example to this interpretive statement could include UN SDG #5 Gender Equality.

Metric: Information gathered from a survey of stakeholders including industry that this revised GA and associated definitions and interpretations are helpful and useful in creating strong programs. This survey ~~can be done in conjunction or as~~is in ~~an~~ addition to normal feedback gathered from HEIs for each program after their visit. Feedback from this process should be part of a continual improvement process for CEAB and EC together.

Recommendation 5: Update to the Interpretive ~~s~~Statement on Graduate Attributes

It is recommended that Appendix 8 the *Interpretive statement on graduate attributes*, specifically the section related to criterion 3.1.4 (assessment tools) be updated to provide clarity around the definitions and expectations for the categories introductory, developed and advanced application (I/D/A) that better prepares students for licensure and the practice of engineering~~.~~.

Metric: The adoption of an updated interpretive statement by the CEAB that aligns with the Washington Accord IEA changes to ~~in~~ Graduate Attributes.

Recommendation 6: Engineers ~~Canada~~ Canada's definition of Equity, Diversity and Inclusion
It is recommended that the Engineers Canada Board develop definitions for "equity," "diversity" and "inclusion" that are consistent with federal standards and applicable to all aspects of the work that Engineers Canada undertakes, including accreditation in tandem with considering aspects of a Professional Engineering careers in all sectors.

It is further recommended that Appendix 8, the *Interpretive statement on graduate attributes* be updated to include the definitions of equity, diversity and inclusion in relation to the proposed Graduate Attribute 10 Equity, Diversity and Inclusion.

Metric: Information gathered from a survey of stakeholders including industry that this definition and associated interpretive statement are helpful and useful in creating strong programs that will benefit the practice of engineering. This survey ~~can be done in conjunction or as an~~is in addition to normal feedback gathered from HEIs after their visit for each program. Feedback from this process should be part of a continual improvement process for CEAB and EC together.

Recommendation 7: Update to the Interpretive s~~S~~tatement on a~~A~~ccreditation u~~U~~nit (AU) ~~C~~categories
To provide HEIs with examples of how EDI can be incorporated into operations, it is recommended that Appendix 7 *Interpretive statement on accreditation unit (AU) categories* be updated to include the following language:

> The remaining 305 AUs (out of 1850 minimum) may be assigned to any combination of mathematics, natural sciences, engineering science, engineering design and complementary studies, such as courses or elements of courses that incorporate EDI concepts, as well as a distinct category "other" if considered desirable. The latter is intended to cover learning activities that may not otherwise be categorized but complement the technical content of the curriculum, is consistent with the program objectives and is assigned academic credit by the institution. **HEIs are encouraged to consider EDI or 30 by 30 EDI training or seminar series (for example) within this allocation of AUs.**

Metric: That 50% of ~~HEIs~~ programs adopt EDI or 30 by 30 ~~training or seminars~~ initiatives that include~~as optional~~ learning activities contributing to the AU total in programs as indicated on documentation provided by the HEIs as part of their questionnaire as prepared for the visiting team.

Recommendation 8: Update to the Interpretive ~~S~~statement on continual~~Continuous~~ iImprovement
To provide HEIs with examples of how EDI can be incorporated into operations, it is recommended that Appendix 9 *Interpretive ~~statement~~ Statement on continuous improvement* be updated to include the following language in relation to criteria 3.2.1 (improvement process), 3.2.2 (stakeholder engagement) and 3.2.3 (improvement actions):

> **Example~~s~~: The implementation and expansion of EDI and 30 by 30 EDI initiatives that are incorporated into the overall educational experience. These may include for example seminars, specific training, workshops, or other educational learning activities.**
> **Example: The program demonstrates a ~~year-over-year~~year-over-year improvement action in Criteria 3.2.3 for EDI and/or 30 by ~~x~~30 initiatives.**

Metric: Information gathered from a survey of stakeholders including industry that this revision of the interpretive statement is helpful and useful in creating strong programs that will benefit the practice of engineering. This survey ~~can be done in conjunction or as~~is in ~~an~~ addition to normal feedback gathered from HEIs after their visit for each program. Feedback from this process should be part of a continual improvement process for CEAB and EC together.

Recommendation 9: Addition to Suggested interview questions for (onsite) visits regarding criterion 3.3.3 Academic Advising

It is recommended that suggested~~s~~ questions be added to the interview guide to facilitate the visiting team member's data collection on the processes that are in place to address EDI issues in relation to faculty-, staff- and peer-advising without bias. The suggested questions are included as an appendix to this report, and are also presented broken down by topic area in subsequent recommendations.

Metric: Feedback from visiting teams that the question list was ~~helpfu~~helpful through~~l~~ a visit evaluation survey.

Recommendation 10: Addition to Suggested interview questions for (onsite) visits regarding ~~criterion~~ Criterion 3.5.1.1 Quality of the educational experience

It is recommended that suggested questions be added to the interview guide to facilitate the visiting team member's data collection on a) the program's demonstrated commitment to EDI, b) the program's provision of EDI training to faculty and staff, and c) the program's policies and procedures to support students through counselling services. The suggested questions are as follows:

- Who is providing counselling?
- What is the nature of the counselling (i.e., psychological, morale, program advising)?
- What is the level of availability (i.e., first come first served, or are special considerations made to allow certain demographic groups [like women, LGBTQ2+] to access the services first?)

Metric: Feedback from visiting teams that the question list was helpful.

Recommendation 11: Addition to Suggested interview questions for (onsite) visits regarding criterion 3.5.3 Leadership

It is recommended that suggested questions be added to the interview guide to facilitate the visiting team member's data collection on leadership's commitment to EDI:

- What is the Office of the Dean doing within the faculty to provide leadership~~be a leader~~ on EDI issues?
- Does the Office of the Dean support (and have a program in place to support) EDI? If so, how is it being rolled out and how is it being sustained?

Metric: Feedback from the visiting teams that the question list was helpful.

Recommendation 12: Addition to Suggested interview questions for (onsite) visits regarding criterion 3.5.4 Experience and competence of faculty members

It is recommended that suggested questions be added to the interview guide to facilitate the visiting team member's data collection on the experiences of female faculty members:

- Are female and ~~minority~~ marginalized group faculty members being encouraged and supported for sustained growth?
- What ongoing/sustainable training opportunities exist for women and ~~minority~~ marginalized groups?
- How are female and ~~minority~~ marginalized group faculty encouraged/supported in their early career to gain industry partnership/mentorship/etc.?
- What EDI principles are endorsed by the Office of the Dean and faculty as it relates to the faculty and staff hiring processes?

Metric: Feedback from the visiting teams that the question list was helpful.

Recommendation 13: Addition to Suggested interview questions for (onsite) visits regarding criterion 3.5.7 Authority and responsibility for the engineering program

It is recommended that a question be added to the interview guide to facilitate the visiting team member's data collection to understand if the Engineering Faculty Council (or equivalent) is aware of EDI issues. The suggested question is as follows:

- How are EDI issues addressed by this ~~body~~organization?

Metric: Feedback from the visiting teams that the question list was helpful.

Recommendation 14: Addition to Suggested interview questions for (onsite) visits regarding general EDI issues

It is recommended that suggested~~the following~~ questions be added to the interview guide to facilitate the visiting team member's data collection on general EDI issues:

Strength of Infrastructure

- Does the HEI have an EDI statement?
- What is the general state of awareness and training on EDI for faculty, staff, graduate and undergraduate students?
- Are the specific faculty or staff dedicated or focused on 30by30 or EDI issues?
- What champion groups, or other entities, support EDI within the HEI?
- What is the general level of effectiveness of EDI-related interventions?

Qualitative: Student Experience of EDI

- Interviews: undergraduate, graduate, staff, technologists
  - Have you experienced harassment while in your chosen program?
  - Have you~~r~~ been discouraged from~~while~~ participating in your chosen~~the~~ program?
  - Do you know how to report any harassment issues?
  - Would you choose this major again?
  - What happened when issues were brought forth? Were they addressed? By whom?

Quantitative: Knowledge and attitude of leadership

- How many women students? Major?
- How many women faculty?
- How are women students being supported?
- How are women faculty being supported?
- What actions are occurring with ~~regards~~ regard to EDI for recruitment and retention?
- What are the outreach activities success rates?
- ~~Would~~ How would you characterize the EDI efforts of the HEI as ad-hoc, top-down, collective effort?

Metric: Feedback from the visiting teams that the question list was helpful.

Recommendation 15: Position statement on issues related to recruitment and retention
It is recommended that ~~the CEAB~~ the CEAB or Engineers Canada issue a position statement related to EDI and issues of recruitment and retention ~~which~~ that touches on the following points:

- Programs are encouraged to seek out non-engineering disciplines to be involved with program development and delivery in order to be dynamic and inclusive especially with respect to EDI issues. An effective way to engage non-engineering disciplines is through engineering design capstone projects.
- Disciplines with historically low diversity enrollment rates are encouraged to seek out ways to increase diversity and representation in their programs. It should be noted that gender balance in enrollment would be an effective way to measure the impact of a program's commitment to the 30 by 30 initiative.
- Programs are encouraged to engage their industry partners to help identify EDI issues within a program that may be impacting the local practice environment as a means to improve the program culture.

Metric: The position statement is published and made available on the Engineers Canada website, and is accessed by external stakeholders (which is possible to determine via web analytics).

Recommendation 16: Composition and training of visiting teams
It is recommended that the CEAB update CEAB policy 4.2 (selection of visiting team) to reflect the following language:

> The CEAB strives to create visiting teams that are composed of at least 30 ~~per cent~~percent women. A long-term goal would be a female/male split representative of the Canadian population.

It is further recommended that the Engineers Canada Board review the Diversity and Inclusion policy to determine if it is appropriate to limit both the target and time goals associated with the 30 by 30 initiative.

Metric: That CEAB Policy 4.2, Selection of visiting team, is updated and approved by the Engineers Canada Board to indicate CEAB "strives to create visiting teams that are composed of at least 30 *per cent* women; a long-term goal would be a female/male split representative of the Canadian population."

Recommendation 17: Volunteer pool
It is recommended that efforts be made to increase outreach and recruitment activities in order to grow the pool of visit volunteers to be more reflective of the Canadian population including diversity of language, gender and marginalized groups.

Metric: That advertising for volunteers via the Engineers Canada website and social media platforms include the following language: "Engineers Canada believes that having a pool of volunteers that is reflective of the Canadian population is a source of our strength. As such, we encourage all qualified individuals to apply, including women and members of ~~minority~~ marginalized groups." Further that female-centric engineering organizations, regulators and the EDC partner with the CEAB in the dissemination of the call for volunteers.

Recommendation 18: Code of conduct
It is recommended that Engineers Canada critically review the current code of conduct enshrined in the Board Policy Manual, 4.3 – Code of Conduct to ensure the organization is inclusive and respectful of all groups, and that the Code is applicable to all of the organization's operations.

Metric: The Engineers Canada Board undertakes a review of the current Code of Conduct policy.

It is further recommended that all visiting team members be provided with a written copy of the current Code of Conduct and any future iterations as they become available.

Metric: That the CEAB Secretariat provides all visiting team members with a copy of the Code of Conduct for each visit in which they participate.

It is further recommended that the visiting team chair's orientation presentation be updated to include information on the Code of Conduct (current and future iterations) and the principles of equity, diversity and inclusion.

Metric: That the visiting team chair's orientation presentation template is updated to include information on the Code of Conduct and the principles of equity, diversity and inclusion.

Recommendation 19: Library of resources on EDI
It is recommended that the CEAB, in connection with staff assigned to support the Engineers Canada 30 by 30 initiative, maintain a library of resources that HEIs could consult on best-practice and industry standards when planning and implementing EDI work for their faculty/department and program(s).

Metric: Information gathered from a survey of stakeholders that this library provides a helpful and useful resource. This survey can be done in conjunction or as an addition to normal feedback gathered from HEIs after their visit.

4. Recommendations to CEAB

The CEAB 30 by 30 Working Group has concluded a national consultation process that was comprised of requesting feedback on its report from interested holders including the EDC, CEQB, regulator groups, practicing engineers and academia. This consultation resulted in almost 400 individual points of feedback. Each point was evaluated by the Working Group for its impact and potential revision to the initial recommendations. Statistics on the feedback are included in the consultation report. The recommendations were thoroughly revised to incorporate all constructive feedback. Then the revised recommendations, along with a comprehensive version of the consultation report were forwarded to the EDC for additional feedback as per the request of the Engineers Canada Board. The response of EDC is also included in this final consultation report.

At this time, in pursuit of a more inclusive profession for women and other marginalized groups, the Working Group presents the revised recommendations and the final consultation report to the CEAB along with the following motion:

That the CEAB endorse the report on the 2022 consultation on the CEAB 30 by 30 Working Group Report for its subsequent submission to the Engineers Canada Board for consideration.

5. Definitions

CEAB, AB: The Canadian Engineering Accreditation Board, or simply the Accreditation Board. Though referred to as a 'Board' the CEAB is technically a committee of the Board of Directors of Engineers Canada.

Engineers Canada Board: The Board of Directors of Engineers Canada.

Higher education institution, HEI: A post-secondary institution, which would refer to an institution offering educational programming after high school.

Regulators: The provincial and territorial associations established under law to regulate the practice of professional engineering within their respective jurisdictions, and who are the Members of Engineers Canada, as defined in the Articles of Continuance.

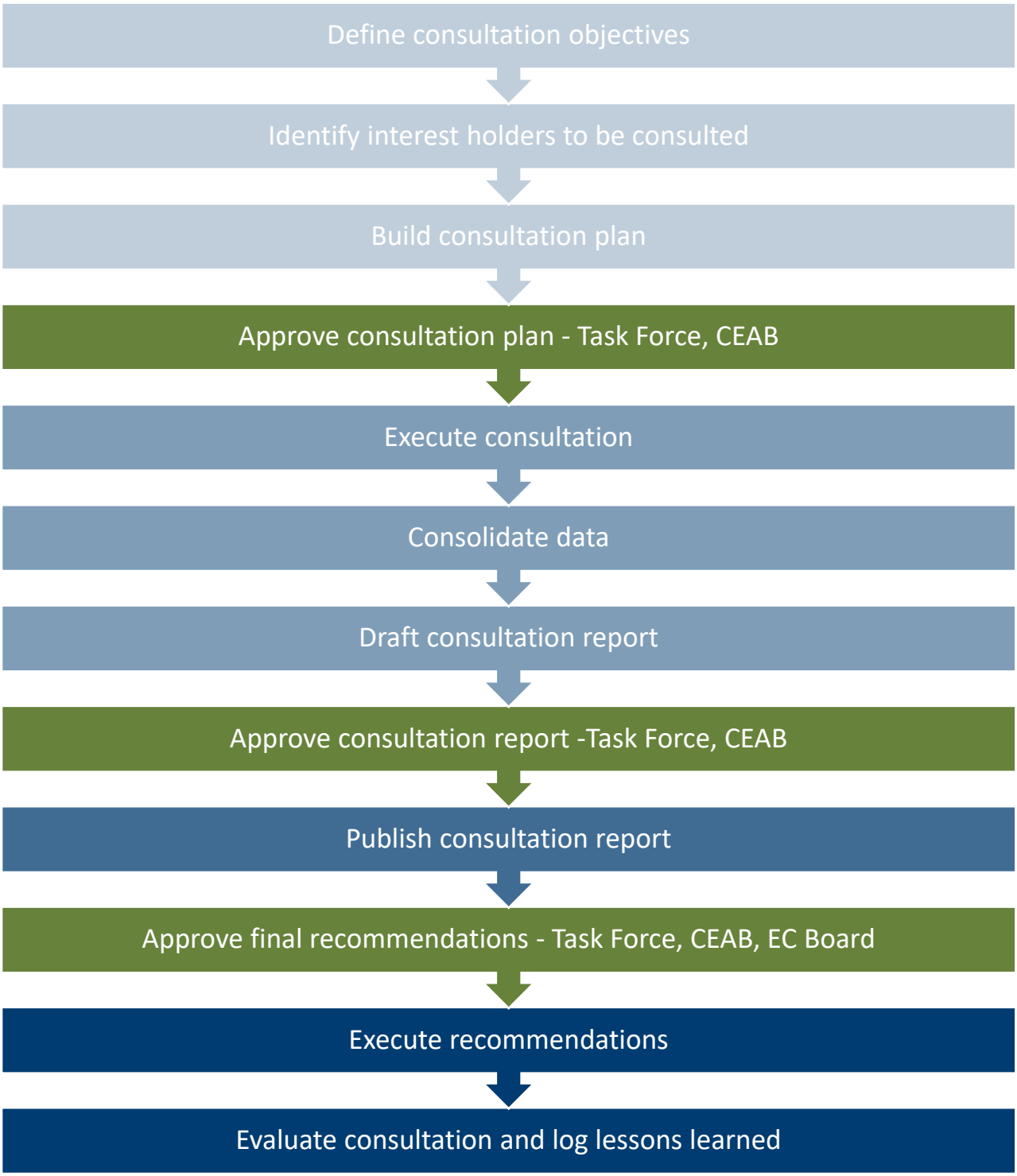
Task force: For the purposes of this report, a task force is a subcommittee operating for a defined period with a specific task. Task forces may include members who are not members of the committee or Board that created the task force.

6. Appendices

Appendix 1: CEAB 30 by 30 Working Group Report

The CEAB 30 by 30 Working Group report can be viewed on the Engineers Canada website here.

Appendix 2: Engineers Canada's Consultation Process



Appendix 3: Consultation Invitation Email

[send via email from: accredtiation@engineerscanada.ca

(*le français suit*)

RE: Consultation on the CEAB 30 by 30 Working Group Report

Dear colleagues,
(Distribution: Board, CEO Group, NAOG)

At their June 5-6, 2021 meeting, the Accreditation Board directed the CEAB 30 by 30 Working Group to consult interest holders on the recommendations of their report regarding possible interventions in the accreditation system to support the goal of the 30 by 30 initiative. **All regulators are invited to provide comments on the recommendations contained within the report.** The consultation period will be between May 2 and August 31, 2022.

Who should participate

The CEAB 30 by 30 Working Group has identified engineering regulators' councils, boards of examiners, and/or academic review committees as potential participants in this process. However, there may be other individuals within your organization who should be made aware of this consultation and who may be interested in participating.

How to participate

1. Introduction to the consultation process - webinar

Any individual within your organization who may be interested is invited to attend one of our scheduled introduction webinars. By clicking their preferred option below, participants will be provided within instructions on how to register:

- Thursday, May 12th at 2pm – 3pm EDT (English)
- Thursday, May 19th 2:30 – 3:30 EDT (French)

The introduction webinar will provide an overview of the report development process, highlight the recommendations contained within the report, and define the ways by which we will consult each stakeholder group. Any individual who is not able to participate in the live webinar will be able to access the webinar recording on the Engineers Canada website.

2. Drop-in sessions

Interest holders are invited to attend one of three drop-in sessions to provide their feedback on the recommendations to the members of the Working Group. Breakout rooms will be utilized to ensure conversations are effective and fulsome. To register for one of these sessions, please use the following links:

Date	Registration link
June 23, 1:00 am ET	https://us06web.zoom.us/meeting/register/tZcldeGhqjksH9BKG85a-bqhchilNnuISPZh

July 25, 1:00 pm ET	https://us06web.zoom.us/meeting/register/tZIsf-6sqzgjE9bwfh9g2ekmtYQ2iGZqlB8p
August 31, 12:00 pm ET	https://us06web.zoom.us/meeting/register/tZAlfuqhqz8uEtf4FlJjEgvgpAzzULs8mxoY

Please note, each session will support both French and English participants.

3. Webinar meeting with organization officials

Should you or your colleagues wish to organize a web meeting to discuss the CEAB 30 by 30 Working Group recommendations, please email accreditation@engineerscanada.ca to schedule the meeting.

4. Submit written feedback

You are invited to participate in the consultation through any of the means listed above. Additionally, you are invited to submit a formal written response. Written responses should be directed to accreditation@engineerscanada.ca or by mail to:

CEAB 30 by 30 Working Group
c/o Elise Guest
Engineers Canada
300-55 Metcalfe St.
Ottawa, ON K1P 6L5

Written responses must be received by **August 31, 2022.**

How your feedback will be used

Following each meeting, we will synthesize the feedback you have given and provide it for validation to our primary contact at your organization. All feedback from all interest holders will be collected and presented to the CEAB 30 by 30 Working Group, the CEAB, and the Engineers Canada Board of Directors. A summary of all feedback received will be circulated to interest holders and posted on the Engineers Canada website.

Background

Engineers Canada is working to increase the representation of women within engineering through its 30 by 30 initiative. This initiative has a goal of raising the percentage of newly licensed engineers who are women to 30 per cent by the year 2030. As such, the 2019-2021 Engineers Canada's Strategic Priority 3*: Recruitment, retention, and professional development of women in the engineering profession* highlights the need to drive cultural change in the engineering profession in order to attain the goal of "30 by 30". At their Fall 2019 meeting, the Engineers Canada Board approved the Strategic Priority's sub-strategy, which included direction to the CEAB to develop appropriate ways within the accreditation process to incorporate the goals of the 30 by 30 initiative.

In response, the CEAB struck the CEAB Working Group to Respond to the Engineers Canada 30 by 30 initiative. The Working Group developed 19 recommendations on possible interventions that can be made in the accreditation system in support of the goal of increasing the number of women involved in the engineering profession. The recommendations fall into the following categories:

- The CEAB Criteria and Procedures

- Supporting documentation for the CEAB Criteria and Procedures
- The interpretive statements
- Encouraging recruitment and retention to the engineering profession
- Volunteer management
- General recommendations

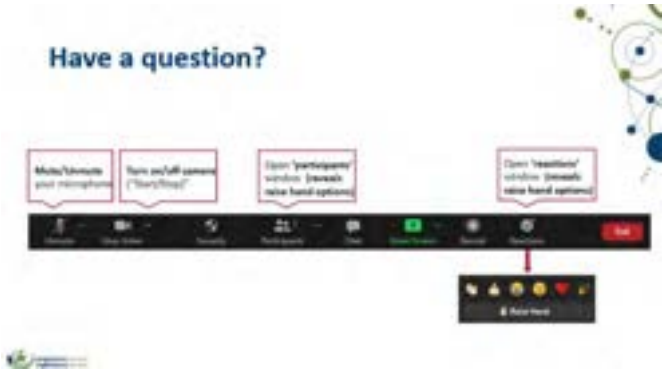
At their June 2021 meeting, the CEAB directed the Working Group to consult with the various interest holders that will be affected by the report's recommendations in a national consultation.

On behalf of the CEAB 30 by 30 Working Group, the Accreditation Board, and Engineers Canada, thank you for considering this invitation. Should you have any questions, please do not hesitate to contact me (mya.warken@engineerscanada.ca or at 1-877-408-9273 extension 206) or Elise Guest (elise.guest@engineerscanada.ca or at 1-877-408-9273 extension 260).

Best regards,

Mya Warken
Manager, Accreditation
Gestionnaire, Agrément

Appendix 4: Consultation Presentation Slide Deck



Members

- Jeff Pieper, CEAB Member, Chair
- Emily Cheung, CEAB Member
- Mina Hoorfar, nominated by Engineering Deans Canada
- Amy Hsiao, nominated by Engineering Deans Canada
- Tim Joseph, Engineers Canada Director appointee to the CEAB
- Anne-Marie Laroche, CEAB Member
- Jeanette Southwood, Engineers Canada Senior Leadership Team representative (assisted by Cassandra Polyzou, Engineers Canada Manager, Diversity, Equity and Inclusion)
- Ramesh Subramanian, CEAB Member

Timeline

Methodology

- The Working Group took into account the presumed perspectives of the following stakeholders in their work:
  - Regulators
  - Engineers Canada
  - Higher Education Institutions
  - Visiting Teams
  - The 30 by 30 Champion Network
  - CEAB Members
- The Working Group underwent training in EDI and individual learning to bring a knowledgeable perspective forward.

Why is this appropriate for accreditation?

- Principles of the 30 by 30 initiative and work-to-date
- Role of education in the profession
- Findings of the environmental scan/literature reviews
- Lived experiences

Working Group Report

19 recommendations related to:

- The CEAB Criteria and Procedures
- The interpretive statements
- Supporting documentation for the CEAB Criteria and Procedures
- Encouraging recruitment and retention to the engineering profession
- Volunteer management

Recommendations

Recommendations: Criteria

- Recommendation 1: Updates to criterion 3.5.3 Leadership
- Recommendation 2: Updates to criterion 3.5.4 Experience and competence of faculty members
- Recommendation 3: Change Graduate Attribute 8 from "Professionalism" to "Professionalism and Ethics"
- Recommendation 4: Change Graduate Attribute 10 from "Ethics and Equity" to "Equity, Diversity and Inclusion"

Recommendations: Interpretive Statements

- Recommendation 5: Update to the Interpretive Statement on Graduate Attributes
- Recommendation 6: Engineers Canada definition of Equity, Diversity and Inclusion
- Recommendation 7: Update to the Interpretive Statement on Accreditation Unit (AU) Categories
- Recommendation 8: Update to the Interpretive Statement on Continuous Improvement

Recommendations: Supporting Documentation for the CEAB Criteria and Procedures

- Additions to *Suggested interview questions [for] onsite visits* questions:
  - Recommendation 9: regarding criterion 3.3.3 Academic Advising
  - Recommendation 10: regarding criterion 3.5.1.1 Quality of the educational experience
  - Recommendation 11: regarding criterion 3.5.3 Leadership
  - Recommendation 12: regarding criterion 3.5.4 Experience and competence of faculty members
  - Recommendation 13: regarding criterion 3.5.7 Authority and responsibility for the engineering program
  - Recommendation 14: regarding general EDI issues

Recommendation: Encouraging recruitment and retention to the engineering profession

- Recommendation 15: Position statement on issues related to recruitment and retention

Recommendation: Volunteer management

- Recommendation 16: Composition of visiting teams
- Recommendation 17: Volunteer pool

General recommendations

- Recommendation 18: Code of conduct
- Recommendation 19: Library of resources on EDI

Next Steps

National consultation

May 2 – August 31, 2022

National consultation: Objectives

1. Inform stakeholders of the CEAB's efforts to contribute to Engineers Canada's 30 by 30 initiative.
2. Investigate stakeholder reaction to the report recommendations.
3. Identify recommendations that should be implemented and those that should not move forward for implementation, and make improvements to suggested changes/metrics before implementations.
4. Identify barriers to change to any of the report recommendations.
5. Develop a reasonable implementation plan that reflects the diverse viewpoints of stakeholders.
6. Collect feedback on the overlap between 30 by 30 initiatives and wider equity, diversity and inclusion efforts.

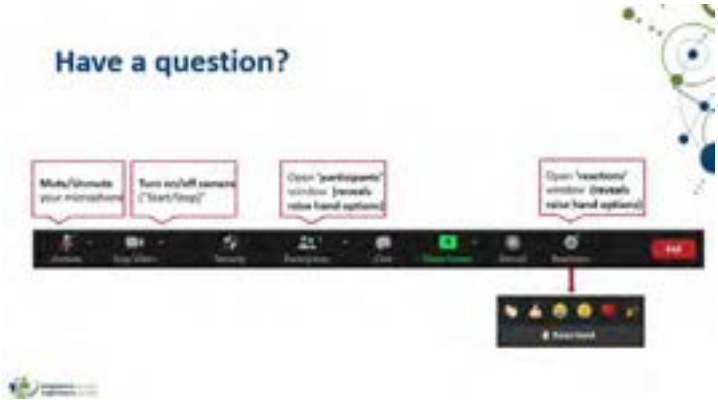
National consultation: Questions

1. Are the recommendations made by the 30 by 30 Working Group appropriate interventions in the accreditation system?
2. Are the metrics identified for each recommendation appropriate?
3. Are there any ways that accreditation could support the goals of the 30 by 30 initiative that have not been included in the Working Group's recommendations?
4. What are the ramifications on your program/for you of the 30 by 30 Working Group's recommendations should they be implemented?
5. What risks exist in implementing any/all of the 30 by 30 Working Group's recommendations? How can these risks be mitigated?

Stakeholder groups being consulted

- CEAB and CEQB
- Canadian Federation of Engineering Students (CFES)
- Engineering Deans Canada (specific focus on DLC)
- Engineering Deans Canada (via the DLC), with a request for Deans to share with faculty
- Engineering regulators (via the CEO and National Admissions Officials Groups)
- Higher Education Institutions (HEIs)
- National Admissions Officials Group (NAOG)
- The Graduate Attribute & Continuous Improvement Professionals Network
- Engineers Canada 30 by 30 Champions Network


Next steps
Dedicated web page
Kick-off webinars
May 12 (English) and May 19 (French)
Stakeholder meetings by request
Virtual drop-in sessions
June 23, July 25, August 25
Written submissions
Written responses can be submitted to:
accreditation@engineerscanada.ca
or by mail to:
c/o Mya Warken
Engineers Canada
300-55 Metcalfe St.
Ottawa, ON K1P 6L5
Submission deadline: August 31, 2022


Have a question?


Thank you
For more information:
accreditation@engineerscanada.ca | 613.232.2474
engineerscanada.ca/accreditation

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BRIEFING NOTE: For information

Canadian Engineering Qualifications Board (CEQB) draft work plan	4.8
Purpose:	To inform the Board of the planning activities of the CEQB in 2025, for final approval in December 2024
Link to the Strategic Plan/Purposes:	Core purpose 3: Providing services and tools that: enable the assessment of engineering qualifications, foster excellence in engineering practice and regulation, and facilitate mobility of practitioners within Canada
Link to the Corporate Risk Profile:	Governance functions
Prepared by:	Ryan Melsom, Manager, Qualifications, and Secretary, CEQB
Presented by:	Frank Collins, Chair, CEQB

Problem/issue definition

- As mandated by Engineers Canada's purposes, the Canadian Engineering Qualifications Board (CEQB) develops and maintains national guidelines, papers, and examinations syllabi that enable the assessment of engineering qualifications, foster excellence in engineering practice and regulation, and facilitate mobility of practitioners within Canada.
- The purpose of this briefing note is to inform the Engineers Canada Board of the results of the consultation process and proposed 2025 CEQB work plan.

Proposed action/recommendation

- That the work plan be approved at the December meeting.

Other options considered:

- No other options were considered, as the work plan reflects feedback received directly from the Regulators.

Risks

- Without having reviewed the work plan, the Engineers Canada Board is unable to monitor the work of the CEQB, resulting in diminished Regulator confidence.

Financial implications

- All work plan items have been considered in the 2024 proposed budget.

Benefits

- The CEQB will provide services and tools that enable the assessment of engineering qualifications, foster excellence in engineering practice and regulation, and facilitate mobility of practitioners within Canada, and which are timely and serve the needs of the Regulators.

Consultation

- The results of the consultations are available in Appendix 1.

  - On April 17, 2024, an email was sent to the Admissions, Practice, and Discipline & Enforcement Officials Groups to consult on proposed work plan priorities. The officials' groups discussed the package and provided their feedback by survey and during virtual meetings that took place between April and June.
- Notably, CEQB members declined to propose any new items for consideration in 2025, instead choosing to focus resources on existing document reviews. A list of pressing topics in engineering that was discussed at the April CEQB meeting was shared with the officials groups, and their perspectives on pressing issues were also discussed. This resulted in a project proposal by NPOG, which was added to the proposed work plan.
- Several Regulators expressed interest in the creation of short-form resources to improve validator awareness and to provide guidance in the use of generative AI. Regulators had also, previously, expressed a desire for short form, publicly accessible resources on fitness to practice, duty to report, and Indigenous consultation and engagement; each of these requests has been accounted for within the proposed work plan.
- Following NAOG, NPOG, and NDEOG consultation, the CEQB Executive reviewed their summarized feedback and recommended the proposed work plan for the CEO Group's (CEOG) consideration. CEOG was supportive of the proposed plan and noted their particular interest in the continuing work on the Regulators Guideline on the Academic Assessment of Non-CEAB Applicants.

Next steps

- Feedback from the Board is welcome and will be considered by the CEQB Executive at an upcoming meeting.
- The final work plan will be presented to the Board for approval at their December meeting.

Appendices

- **Appendix 1:** Draft 2025 CEQB work plan

Draft CEQB work plan 2025

As mandated by the purposes of Engineers Canada, the Canadian Engineering Qualifications Board (CEQB) develops and maintains national guidelines, papers, and examination syllabi that enable the assessment of engineering qualifications, foster excellence in engineering practice and regulation, and facilitate mobility of practitioners within Canada. The purpose of this document is to highlight current 2024 priorities that will be carried forward in 2025 and propose 2025 priorities based on received feedback from officials' groups.

A. Priorities carried forward from previous years

Item	Requested by	Work plan	Anticipated completion
Creating a new Engineers Canada paper on emerging disciplines	NAOG, NPOG	2023	May 2025
Creating a new Engineers Canada paper on the ethical use of groundbreaking technologies	NPOG	2024	October 2025
Review of the 2012 Public guideline on the practice of engineering in Canada	NPOG	2024	May 2025
Review of 2018 Regulators guideline on academic assessment of non-CEAB applicants	NAOG	2024	May 2025

B. Additional 2025 priorities

Item	Requested by	Date of request	Anticipated completion
Review of the 2018 Public guideline on qualified persons in demand-side legislation	NPOG	2024	October 2026
New Guideline on regulatory engineers and public accountability (contingent on previous item)	NPOG	2024	May 2027
CEQB also plans to take on substantial outreach activities based on 2024-5 work, including the development of short-format resources, conference presentations, and interest holder engagement.	CEQB, NAOG, NDEOG	2024	December 2025

C. Ongoing review of examinations syllabi and associated textbooks

Item	Anticipated completion
2016 Naval Architectural engineering syllabus	January 2025
2018 Mining and mineral processing engineering syllabus	January 2025
2017 Computer engineering syllabus	July 2025

D. New review of examinations syllabi and associated textbooks

Item	Anticipated completion
2018 Environmental engineering syllabus	January 2026
2018 Geological engineering syllabus	January 2026
2018 Geomatics engineering syllabus	January 2026

BRIEFING NOTE: For decision

Revised Guideline on assuming responsibility for the work of engineers-in-training	4.9a
Purpose:	To approve the revised Guideline on assuming responsibility for the work of engineers-in-training for publication on the Engineers Canada website
Link to the Strategic Plan / Purposes:	Core purpose 3: Providing services and tools that enable the assessment of engineering qualifications, foster excellence in engineering practice and regulation, and facilitate mobility of practitioners within Canada.
Link to Corporate Risk Profile:	Diminished scope and value of engineering regulation (Board risk) Diminished national collaboration (Board risk) Client satisfaction (Operational risk)
Motion(s) to consider:	*THAT the Board, on recommendation of the CEQB, approve the revised Guideline on assuming responsibility for the work of engineers-in-training*
Vote required to pass:	Simple majority
Transparency:	Open session
Prepared by:	Ryan Melsom, Manager, Qualifications and CEQB Secretary
Presented by:	Frank Collins, CEQB Chair

Problem/issue definition

- This guideline was developed to provide guidance to engineers responsible for the work of engineers-in-training. It was first introduced/last updated in 2018.
- While each jurisdiction maintains its own practices around engineers-in-training and associated designations, a national guideline on assuming responsibility for the work of engineers-in-training provides a consensus-based, nationally supported document for regulators considering issues around the topic.
- In 2022, the Engineers Canada Board requested that a review of the Guideline on assuming responsibility for the work of engineers-in-training be prioritized. Admissions, practice, and discipline & enforcement officials all expressed that such a review would be valuable, as the guideline can help with the issue of finding qualified supervisors for engineers-in-training. They also noted that the review had synergy with the forthcoming Engineers Canada paper on emerging disciplines, and that the review may be able to assist with the issue of licensing entrepreneurs.

Proposed action/recommendation

- That the Board, on the recommendation of the CEQB, approve the Revised Guideline on assuming responsibility for the work of engineers-in-training.

Risks

- Differences exist across jurisdictions regarding current engineer-in-training practices and designations, so a public guideline has the potential to cause uneven expectations among supervisors, registrants, and the public.

- Revisions to the guideline were undertaken with careful attention to this issue and were designed to provide general guidance that applies regardless of specific jurisdictional practices.
- Three regulators were part of the CEQB EIT Committee and offered insights on how to avoid any potential issues.

Financial implications

- N/A

Benefits

- Revisions have updated the guideline to better align with the Pan-Canadian competency framework, which was implemented since the previous iteration of the guideline.
- The revised guideline also now considers issues of equity and fairness as an important part of effective supervision.
- The guideline can help strengthen public trust in the engineering profession by highlighting the profession's commitment to accountability, impartiality, transparency, and ethical practice.
- The guideline can be useful to regulators in their admissions, practice-related, and discipline and enforcement activities.

Consultation

- The guideline was reviewed and revised by Engineers Canada staff and the EIT Committee in summer-fall 2023. The committee included four regulator members, representing PEGNL, EGM, APEGS, and EGBC.
- The revised guideline was sent for regulator consultation in February-March 2024. The committee received 55 feedback items from six regulators (ENS, EGBC, PEO, OIQ, APEGA, APEGS). Each item was addressed in the final document approved by the CEQB in April 2024.

Next steps (if motion approved)

- The final revised Guideline on assuming responsibility for the work of engineers-in-training will be published on the Engineers Canada website.

Appendices

- **Appendix 1:** Revised Guideline on assuming responsibility for the work of engineers-in-training – track change versions and clean copies

Public guideline on supervising and assuming professional responsibility for the work of engineers-in-training

October 2024

Questions concerning the content of this guideline should be directed to:
Canadian Engineering Qualifications Board
Engineers Canada
ceqb@engineerscanada.ca

Notice

Disclaimer
Engineers Canada's national guidelines and Engineers Canada papers were developed by engineers in collaboration with the provincial and territorial engineering regulators. They are intended to promote consistent practices across the country. They are not regulations or rules; they seek to define or explain discrete topics related to the practice and regulation of engineering in Canada.

The national guidelines and Engineers Canada papers do not establish a legal standard of care or conduct, and they do not include or constitute legal or professional advice
In Canada, engineering is regulated under provincial and territorial law by the engineering regulators. The recommendations contained in the national guidelines and Engineers Canada papers may be adopted by the engineering regulators in whole, in part, or not at all. The ultimate authority regarding the propriety of any specific practice or course of conduct lies with the engineering regulator in the province or territory where the engineer works, or intends to work.

About this Engineers Canada paper
This national Engineers Canada paper was prepared by the Canadian Engineering Qualifications Board (CEQB) and provides guidance to regulators in consultation with them. Readers are encouraged to consult their regulators' related engineering acts, regulations, and bylaws in conjunction with this Engineers Canada paper.

About Engineers Canada
Engineers Canada is the national organization of the provincial and territorial associations that regulate the practice of engineering in Canada and license the country's ~~295~~,000 members of the engineering profession.

About the Canadian Engineering Qualifications Board
CEQB is a committee of the Engineers Canada Board and is a volunteer-based organization that provides national leadership and recommendations to regulators on the practice of engineering in Canada. CEQB develops guidelines and Engineers Canada papers for regulators and the public that enable the assessment of engineering qualifications, facilitate the mobility of engineers, and foster excellence in engineering practice and regulation.

About Equity, Diversity, and Inclusion
By its nature, engineering is a collaborative profession. Engineers collaborate with individuals from diverse backgrounds to fulfil their duties, tasks, and professional responsibilities. Although we collectively hold the responsibility of culture change, engineers are not expected to tackle these issues independently. Engineers can, and are encouraged to, seek out the expertise of Equity, Diversity, and Inclusion (EDI) professionals, as well as individuals who have expertise in culture change and justice.

1. Introduction

Provincial and territorial legislation requires that ~~all persons practicing~~any person practising engineering be licensed to in the jurisdiction where they ~~work~~practise. Legislation ~~usually~~often* includes an exemption which allows unlicensed individuals, including engineers-in-training to assist in the practice of engineering, provided that a ~~licensed~~professional engineer assumes full responsibility for the work. In some jurisdictions, elements of supervision may be governed by other provincial laws. However, this guideline was developed to ~~provide guidance to~~guide professional engineers ~~responsible~~assuming responsibility for the work of engineers-in-training.

For the purposes of this paper, unless otherwise specified, the term "engineer-in-training" may refer to someone who is enrolled in a formal program (i.e. EIT, MIT, CEP, Engineering Intern), or to an individual who is undertaking supervised engineering practice with the intention of becoming an engineer in a jurisdiction without an official EIT program.

Engineers Canada provides the following related documents:

- ~~»Public~~Regulator guideline for the Engineer-in-Training ~~Programs~~program
- ~~»~~Public guideline: Direct supervision
- ~~»~~Public guideline on the code of ethics
- ~~»~~Public guideline on good character

~~»Public guideline on the professional practice examination~~

~~»Report on Core Engineers Competencies~~

Please note that a glossary of terms follows the main body of the text.

2. Commitments

2.1 The regulator

~~The regulator should be committed to:~~

~~»~~While jurisdictional contexts differ, several good practices will ensure better protection of the public, and increased success of EITs who are applying for licensure:

- Encouraging employers to support the professional development of engineers-in-training~~.~~

* As of 2024, this is not the case in Ontario, except when the person holds an official EIT designation. See PEO's Assuming Responsibility and Supervising Engineering Work Guideline (Accessed March 15, 2024) for jurisdiction-specific information.

- »Providing guidance to employers to develop a programthe requirements that will allow for the growth of engineers-in-training into highly trained, ethical professionals.
- »Reviewing the overall strategies and performances of Identifying continuing education opportunities to engineers-in-training
- Establishing requirements for engineer-in-training programs., including practices for supervision of individual engineers-in-training
- »Making recommendations for continual improvement. of the process required for professional licensure

2.2 The employer

In Canada, all engineering work must be approved by an engineer; although an engineer-in-training may perform engineering work the engineer-in-training cannot approve it. Therefore,, only a professional engineer licensed in the jurisdiction can take professional responsibility for it. Organizations employing engineers-in-training to do engineering work should be aware that an engineer has to assume responsibility for the engineering work. Furthermore, an engineer-in-training will be licenced when he or she has acquired relevant experience under the supervision of must therefore ensure that their work is properly supervised by one or more engineers licensed to practiceworking in the appropriate field. An engineer-in-training province of registration and in the field relevant to that of the engineer-in-trainingmay be licensed as a professional engineer only when they have met their jurisdiction's experience requirements in addition to any other licensure requirements of their jurisdiction.

When the employer does not have ana professional engineer to supervise and take responsibility for the engineer-in-training's engineering work, the employer must make arrangements with an outsideexternal engineer to take on the responsibilityaccountability of that supervision and responsibility for the engineering work. This can be particularly challenging in situations when the engineer-in-training is working in an emerging field for which there is not yet a pool of qualified supervisors, or in situations when the engineer-in-training is working in an entrepreneurial environment where supervisors and the time for supervised practice are in limited supply. It is best to consult with the relevant jurisdiction's regulator when employers are unsure of how to proceed with supervision. Notably, mentorship programs do not meet the requirements of EIT supervision, as they do not provide supervision or approval of the engineering work completed by the EIT.

The employer should be committed to:

- »Supporting the professional development of engineers-in-training.
- »Implementing and continually improving a structured program to facilitate the development of engineer-in-trainings.

»Reviewing the overall strategies and performance of the program with a view to continual improvement.

»Ensuring that a licensedprofessional engineer employed at the organization is responsible for the work of each engineer-in-training.

- ~~»Employing,~~ or that an ~~engineer to assume responsibility for the work of the engineer-in-training~~appropriate third-party supervisor is hired to supervise.

~~Responsibilities~~3. Obligations of the responsible engineer

~~By affixing his or her seal to a document,~~ A responsible engineer is a licensed Professional Engineer who assumes ~~responsibility~~supervision and development of the engineer-in-training and is accountable for the work of the engineer-in-training.

The responsible engineer ~~must~~should:

- ~~»~~Demonstrate the importance of subscribing to the *Code of Ethics* and practising to the benefit of the public;
- Discuss motivations, or traits required for professional registration and ways that they are demonstrated through the actions and behaviours of the applicant
- Be aware of the jurisdiction's requirements for licensure and provide opportunities for the engineer-in-training to fulfill those requirements~~.~~
- ~~»~~Supervise engineers-in-training within their scope of practice only; For emerging disciplines or overlap in specialty, consider inviting another Professional Engineer for co-supervision
- Ensure that the work assigned is compatible with the engineer-in-training's education, comprise a variety of tasks of increasing responsibility and technical complexity, and provide the opportunity for the engineer-in-training to develop professional judgment and the ability to work effectively as part of a team~~.~~
- ~~»~~If the responsible engineer does not work for the employer and cannot determine the compatibility of the engineer-in-training's tasks with their education, there is a responsibility to discuss this matter with the engineer-in-training and help them bring it to the attention of the employer and possibly the regulator

- Assist in the engineer-in-training's professional and technical development, to ensure that the engineer-in-training develops the core engineering competencies by providing ~~counselling~~guidance, encouragement and support as required, while assuming responsibility for the technical quality of the engineer-in-training's work~~.~~

~~»Encourage the engineer-in-training to maintain a detailed experience record, which the supervisor reviews and validates from time to time, and to be used as a reference in preparing semi-annual progress reports to the regulator.~~

- ~~»Provide the regulator with semi-annual reports on the progress~~Consider the welfare and well-being, including workplace safety and mental health, of the engineer-in-training~~, where required~~.

~~»Consider the welfare of the engineer-in-training as well as that of the organization.~~

~~»Be prepared to serve as a referee when the engineer-in-training is ready for registration as a professional member, and comment on the applicant's technical competence, communication skills, ability to exercise professional judgment, integrity, ability to assume responsibility, ability to work effectively as part of a team, and ability to recognize his or her limitations with respect to the practice of engineering. [2]~~

~~The following are recommendations for the responsible engineer:~~

~~»Be in the same area of practice as the engineer-in-training.~~

~~»Ensure the accuracy of the work from a technical perspective.~~

~~»Ensure the assigned work provides opportunities for the engineer-in-training to complete each of the experience requirements.~~

- ~~»Provide an example~~Be aware of and receptive to issues that may be difficult for under-represented individuals, such as equity, unconscious bias, discrimination, and systemic barriers
- When suitable based on the supervisory situation, provide examples of good work practices and organizational skills, such as note taking, logbook entries, calculations~~, and~~; assist in developing good filing and recording habits~~.~~
- ~~»~~Ensure that assignments are progressive in complexity and responsibility, helping to satisfy competency requirements and lead towards the engineer-in-training becoming an independent professional~~.~~

~~»Demonstrate the importance of subscribing to the *Code of Ethics* and practising to the benefit of the public;~~

- ~~»Certify the documentation of the work experience (such as log book entries) prepared by~~ Encourage the engineer-in-training ~~for the purpose of obtaining professional status;~~to maintain a detailed experience record/competency based assessment (depending on the jurisdiction's requirement)
- ~~»Keep~~Engage in frank and open conversations about the engineer-in-~~training apprised of their performance and make suggestions~~training's readiness for licensure, suggesting

areas for improvement~~.~~, and, when necessary, developing growth plans to prepare the supervisee for licensure

~~»Provide management~~ Encourage the engineering-in-training's professional growth through activities including but not limited to professional development ~~and practical experience~~ opportunities~~.~~

~~»Promote the engineering profession and the aims of the association to engineers-in-training.~~

~~»Increase awareness of activities and duties at different levels of the organization.~~

- ~~»Encourage~~ , education on organizational structures and governance, participation in ~~industry,~~ technical and professional ~~societies.~~society activities, and participation in management training and decision making

~~»Assist the engineer-in-training in locating professional development and technical training opportunities.~~

- Be prepared to serve as a validator when the engineer-in-training is ready for registration as a professional engineer, and be ready to comment on the applicant's competencies, which may include technical competence, communication skills, project and financial management skills, team effectiveness, professional accountability, social, economic, environmental and sustainability competence, and personal continuing professional development skills
- Promote the engineering profession and the purpose of regulation to engineers-in-training.

4. Responsibilities of the engineer-in-training

It is the responsibility of the engineer-in-training to comply with all applicable legislation. ~~The engineer-in-training should:~~Regulators expect that engineers-in-training are proactive in developing into professional engineers who can safely and independently practice. Becoming a professional engineer goes beyond strictly technical abilities. It includes developing an understandi ng of the social and ethical significance of the professional's role in society.

~~»~~In preparation for licensure, the engineer-in-training should:

- understand and comply with the requirements of the regulator's engineer-in-training program;
- ~~»~~be an active participant in their own training process;
- ~~»~~document all work experience and professional development activities in a format that is acceptable to the regulator;
- ~~»~~develop effective communication, decision-making and leadership skills;
- ~~»~~use their intellectual and analytical abilities to further their professional development; and
- ~~»~~take responsibility for the development of their own careers.

» ~~In recording~~engage their supervisors by sharing and ~~reporting work~~ discussing their intended experience~~, the~~ examples and seeking feedback on gaps in exposure to any missing competencies and how to address them.

In recording and reporting work experience, the engineer-in-training should be:

- »as concise as possible;
- »specific in describing work and identifying roles in larger projects;
- »using the word "I" frequently;
- »identifying gaps in their engineering experience timeline;
- »if confidentiality of projects is a concern, consulting with their employer and the regulator, and
- »flagging the difference between similar work experience reports.

In order to license an individual, regulators require that an engineer-in-training ~~should~~ be able to demonstrate competencies in specific areas through examples that follow a set format:

~~»as concise as possible;~~
~~»specific in describing work and identifying roles in larger projects;~~
~~»use the word "I" frequently;~~
~~»identify progression wherever possible;~~
~~»identify gaps in their engineering experience timeline;~~
~~»if confidentiality of projects is a concern, consult with their employer and the regulator, and~~
~~»flag the difference between similar work experience reports.~~

» ~~The engineer~~**Situation:** Choose an example that demonstrates your knowledge of the competency
» **Action:** Describe your actions clearly so that someone not familiar with the situation can understand what happened
» **Outcome:** Summarize the result in a way that highlights your contribution

In writing their examples, engineers-in-training ~~should~~are encouraged to:

» Select examples that best demonstrate the ~~following five criteria when describing work experience:~~specific competency they are seeking to illustrate; the examples can come from any time in their employment history
» Write their examples in first-person, as it is important to demonstrate the work that they have done, as opposed to the work of other team members
» Consider their audience, use general terminology during the assessment phase and avoid company-specific terms to provide context to the assessors

» Be specific in their examples, avoiding general work or routine tasks
» Include reference to theory and technical concepts
» Rather than including calculations, refer to what was calculated and why

5. Definitions

~~»Application of theory – analysis, design, synthesis, devising testing methods, implementation methods.~~

~~»Practical experience – function of components as part of a larger system, limitations of practical engineering, significance of time in the engineering process, knowledge and understanding of codes, standards, regulations and laws.~~

~~»Management of engineering - planning, scheduling, budgeting, supervision, project control, risk assessment.~~

~~»Communication skills – written work, oral presentations, presentations to the general public.~~

~~»Social implications of engineering – determining the value or benefits of the engineering work to the public, putting appropriate safeguards in place, relationship between the engineering activity and the public, role of regulatory agencies.~~

Competency Based Assessment/Competency Assessment: The assessment of observable and measurable skills, knowledge, abilities, motivations, or traits required for professional registration that are demonstrated through the actions and behaviours of the applicant.

Engineer: An engineer (or professional engineer) is an individual who has been issued a license to practice engineering by a provincial or territorial engineering regulatory body after demonstrating that they have the requisite education, skills, knowledge and experience. An engineer is sometimes referred to as a licensed engineer, a registered engineer, a professional engineer, or an engineer.

Engineer-in-training: A candidate for engineering licensure who has met the academic and good character requirements, and is in a period of on-the-job training to ~~accumulate~~develop engineering competencies through work experience ~~and~~, including an understanding of:

- ~~»~~the application of the relevant Regulations, By-laws, Code of Ethics and Professional Standards of Conduct in a professional environment;
- ~~»~~the responsibilities of participating in a self-regulated profession; and
- ~~»~~the importance of an engineer's relationship with clients, employers, the regulator and society.

Equivalent terms: ~~junior engineer, engineering interns, mentor, member~~In addition to the designation "Engineer-in-Training~~[1].~~" Canadian regulators also use Member-in-Training, Candidate to the engineering profession, and Engineering Intern.

Mentor: ~~A person who provides advice,~~ An individual offering professional guidance and coaching ~~and support~~ to ~~aid and stimulate the~~an engineer-in-training ~~towards achieving his or her license to practice.~~. A mentorship relationship is distinct and different from a supervisory one, in that a mentor does not ~~necessarily~~ assume professional responsibility for the ~~work of an~~ engineer-in-training. ~~(Regulators Guideline for Mentoring Programs)~~

Regulator: A body empowered by legislation to establish the standards for admission to the profession and to regulate the practice of engineering in a province or territory.

Responsible engineer: An engineer who assumes responsibility for the engineering work of an engineer-in-training, and is licensed in the jurisdiction where the engineer-in-training is performing work.

~~The term "engineer-in-training" is used in Prince Edward Island, Newfoundland and Labrador, New Brunswick, British Columbia and Nova Scotia. "junior engineer" is used in Québec, "engineering interns" in Ontario as well as Manitoba and "member-in-training" in Saskatchewan, Alberta and Northwest Territories.~~**Validator:** Responsible engineers who review an applicant's competency self-assessment and provides validation and competence level ratings to the regulator for the examples that the applicant has assigned to them. A validator also provides overall feedback on the applicant's readiness for professional registration or licensure to the regulator.

Note: Situations where an engineer-in-training and responsible engineers have a personal relationship can present real or perceived conflicts of interest and are best avoided. If a relationship exists, regulators should be notified and may require additional references.

Public guideline on supervising and assuming professional responsibility for the work of engineers-in-training

October 2024

Questions concerning the content of this guideline should be directed to:
Canadian Engineering Qualifications Board
Engineers Canada
ceqb@engineerscanada.ca

Notice

Disclaimer
Engineers Canada's national guidelines and Engineers Canada papers were developed by engineers in collaboration with the provincial and territorial engineering regulators. They are intended to promote consistent practices across the country. They are not regulations or rules; they seek to define or explain discrete topics related to the practice and regulation of engineering in Canada.

The national guidelines and Engineers Canada papers do not establish a legal standard of care or conduct, and they do not include or constitute legal or professional advice
In Canada, engineering is regulated under provincial and territorial law by the engineering regulators. The recommendations contained in the national guidelines and Engineers Canada papers may be adopted by the engineering regulators in whole, in part, or not at all. The ultimate authority regarding the propriety of any specific practice or course of conduct lies with the engineering regulator in the province or territory where the engineer works, or intends to work.

About this Engineers Canada paper
This national Engineers Canada paper was prepared by the Canadian Engineering Qualifications Board (CEQB) and provides guidance to regulators in consultation with them. Readers are encouraged to consult their regulators' related engineering acts, regulations, and bylaws in conjunction with this Engineers Canada paper.

About Engineers Canada
Engineers Canada is the national organization of the provincial and territorial associations that regulate the practice of engineering in Canada and license the country's 295,000 members of the engineering profession.

About the Canadian Engineering Qualifications Board
CEQB is a committee of the Engineers Canada Board and is a volunteer-based organization that provides national leadership and recommendations to regulators on the practice of engineering in Canada. CEQB develops guidelines and Engineers Canada papers for regulators and the public that enable the assessment of engineering qualifications, facilitate the mobility of engineers, and foster excellence in engineering practice and regulation.

About Equity, Diversity, and Inclusion
By its nature, engineering is a collaborative profession. Engineers collaborate with individuals from diverse backgrounds to fulfil their duties, tasks, and professional responsibilities. Although we collectively hold the responsibility of culture change, engineers are not expected to tackle these issues independently. Engineers can, and are encouraged to, seek out the expertise of Equity, Diversity, and Inclusion (EDI) professionals, as well as individuals who have expertise in culture change and justice.

1. Introduction

Provincial and territorial legislation requires that any person practising engineering be licensed to in the jurisdiction where they practise. Legislation often* includes an exemption which allows unlicensed individuals, including engineers-in-training to assist in the practice of engineering, provided that a professional engineer assumes full responsibility for the work. In some jurisdictions, elements of supervision may be governed by other provincial laws. However, this guideline was developed to guide professional engineers assuming responsibility for the work of engineers-in-training.

For the purposes of this paper, unless otherwise specified, the term "engineer-in-training" may refer to someone who is enrolled in a formal program (i.e. EIT, MIT, CEP, Engineering Intern), or to an individual who is undertaking supervised engineering practice with the intention of becoming an engineer in a jurisdiction without an official EIT program.

Engineers Canada provides the following related documents:

- Regulator guideline for the Engineer-in-Training program
- Public guideline: Direct supervision
- Public guideline on the code of ethics
- Public guideline on good character

Please note that a glossary of terms follows the main body of the text.

2. Commitments

2.1 The regulator

While jurisdictional contexts differ, several good practices will ensure better protection of the public, and increased success of EITs who are applying for licensure:

- Encouraging employers to support the professional development of engineers-in-training
- Providing guidance to employers to develop the requirements that will allow for the growth of engineers-in-training into highly trained, ethical professionals
- Identifying continuing education opportunities to engineers-in-training
- Establishing requirements for engineer-in-training programs, including practices for supervision of individual engineers-in-training
- Making recommendations for continual improvement of the process required for professional licensure

* As of 2024, this is not the case in Ontario, except when the person holds an official EIT designation. See PEO's Assuming Responsibility and Supervising Engineering Work Guideline (Accessed March 15, 2024) for jurisdiction-specific information.

2.2 The employer

In Canada, although an engineer-in-training may perform engineering work, only a professional engineer licensed in the jurisdiction can take professional responsibility for it. Organizations employing engineers-in-training must therefore ensure that their work is properly supervised by one or more engineers working in the appropriate field. An engineer-in-training may be licensed as a professional engineer only when they have met their jurisdiction's experience requirements in addition to any other licensure requirements of their jurisdiction.

When the employer does not have a professional engineer to supervise and take responsibility for the engineer-in-training's engineering work, the employer must make arrangements with an external engineer to take on the accountability of that supervision and responsibility for the engineering work. This can be particularly challenging in situations when the engineer-in-training is working in an emerging field for which there is not yet a pool of qualified supervisors, or in situations when the engineer-in-training is working in an entrepreneurial environment where supervisors and the time for supervised practice are in limited supply. It is best to consult with the relevant jurisdiction's regulator when employers are unsure of how to proceed with supervision. Notably, mentorship programs do not meet the requirements of EIT supervision, as they do not provide supervision or approval of the engineering work completed by the EIT.

The employer should be committed to:

- Supporting the professional development of engineers-in-training.
- Implementing and continually improving a structured program to facilitate the development of engineer-in-trainings.
- Ensuring that a professional engineer employed at the organization is responsible for the work of each engineer-in-training, or that an appropriate third-party supervisor is hired to supervise.

3. Obligations of the responsible engineer

A responsible engineer is a licensed Professional Engineer who assumes supervision and development of the engineer-in-training and is accountable for the work of the engineer-in- training.

The responsible engineer should:

- Demonstrate the importance of subscribing to the *Code of Ethics* and practising to the benefit of the public;
- Discuss motivations, or traits required for professional registration and ways that they are demonstrated through the actions and behaviours of the applicant

- Be aware of the jurisdiction's requirements for licensure and provide opportunities for the engineer-in-training to fulfill those requirements
- Supervise engineers-in-training within their scope of practice only; For emerging disciplines or overlap in specialty, consider inviting another Professional Engineer for co-supervision
- Ensure that the work assigned is compatible with the engineer-in-training's education, comprise a variety of tasks of increasing responsibility and technical complexity, and provide the opportunity for the engineer-in-training to develop professional judgment and the ability to work effectively as part of a team
- If the responsible engineer does not work for the employer and cannot determine the compatibility of the engineer-in-training's tasks with their education, there is a responsibility to discuss this matter with the engineer-in-training and help them bring it to the attention of the employer and possibly the regulator
- Assist in the engineer-in-training's professional and technical development, to ensure that the engineer-in-training develops the core engineering competencies by providing guidance, encouragement and support as required, while assuming responsibility for the technical quality of the engineer-in-training's work
- Consider the welfare and well-being, including workplace safety and mental health, of the engineer-in-training.
- Be aware of and receptive to issues that may be difficult for under-represented individuals, such as equity, unconscious bias, discrimination, and systemic barriers
- When suitable based on the supervisory situation, provide examples of good work practices and organizational skills, such as note taking, logbook entries, calculations; assist in developing good filing and recording habits
- Ensure that assignments are progressive in complexity and responsibility, helping to satisfy competency requirements and lead towards the engineer-in-training becoming an independent professional
- Encourage the engineer-in-training to maintain a detailed experience record/competency based assessment (depending on the jurisdiction's requirement)
- Engage in frank and open conversations about the engineer-in-training's readiness for licensure, suggesting areas for improvement, and, when necessary, developing growth plans to prepare the supervisee for licensure
- Encourage the engineering-in-training's professional growth through activities including but not limited to professional development opportunities, education on organizational structures and governance, participation in technical and professional society activities, and participation in management training and decision making
- Be prepared to serve as a validator when the engineer-in-training is ready for registration as a professional engineer, and be ready to comment on the applicant's competencies, which may include technical competence, communication skills, project and financial management skills, team effectiveness, professional

accountability, social, economic, environmental and sustainability competence, and personal continuing professional development skills
- Promote the engineering profession and the purpose of regulation to engineers-in-training.

4. Responsibilities of the engineer-in-training

It is the responsibility of the engineer-in-training to comply with all applicable legislation. Regulators expect that engineers-in-training are proactive in developing into professional engineers who can safely and independently practice. Becoming a professional engineer goes beyond strictly technical abilities. It includes developing an understanding of the social and ethical significance of the professional's role in society.

In preparation for licensure, the engineer-in-training should:

- understand and comply with the requirements of the regulator's engineer-in-training program;
- be an active participant in their own training process;
- document all work experience and professional development activities in a format that is acceptable to the regulator;
- develop effective communication, decision-making and leadership skills;
- use their intellectual and analytical abilities to further their professional development; and
- take responsibility for the development of their own careers.
- engage their supervisors by sharing and discussing their intended experience examples and seeking feedback on gaps in exposure to any missing competencies and how to address them.

In recording and reporting work experience, the engineer-in-training should be:

- as concise as possible;
- specific in describing work and identifying roles in larger projects;
- using the word "I" frequently;
- identifying gaps in their engineering experience timeline;
- if confidentiality of projects is a concern, consulting with their employer and the regulator, and
- flagging the difference between similar work experience reports.

In order to license an individual, regulators require that an engineer-in-training be able to demonstrate competencies in specific areas through examples that follow a set format:

- **Situation:** Choose an example that demonstrates your knowledge of the competency
- **Action:** Describe your actions clearly so that someone not familiar with the situation can understand what happened
- **Outcome:** Summarize the result in a way that highlights your contribution

In writing their examples, engineers-in-training are encouraged to:

- Select examples that best demonstrate the specific competency they are seeking to illustrate; the examples can come from any time in their employment history
- Write their examples in first-person, as it is important to demonstrate the work that they have done, as opposed to the work of other team members
- Consider their audience, use general terminology during the assessment phase and avoid company-specific terms to provide context to the assessors
- Be specific in their examples, avoiding general work or routine tasks
- Include reference to theory and technical concepts
- Rather than including calculations, refer to what was calculated and wh

5. Definitions

Competency Based Assessment/Competency Assessment: The assessment of observable and measurable skills, knowledge, abilities, motivations, or traits required for professional registration that are demonstrated through the actions and behaviours of the applicant.

Engineer: An engineer (or professional engineer) is an individual who has been issued a license to practice engineering by a provincial or territorial engineering regulatory body after demonstrating that they have the requisite education, skills, knowledge and experience. An engineer is sometimes referred to as a licensed engineer, a registered engineer, a professional engineer, or an engineer.

Engineer-in-training: A candidate for engineering licensure who has met the academic and good character requirements, and is in a period of on-the-job training to develop engineering competencies through work experience, including an understanding of:

- the application of the relevant Regulations, By-laws, Code of Ethics and Professional Standards of Conduct in a professional environment;
- the responsibilities of participating in a self-regulated profession; and
- the importance of an engineer's relationship with clients, employers, the regulator and society.

Equivalent terms: In addition to the designation "Engineer-in-Training" Canadian regulators also use Member-in-Training, Candidate to the engineering profession, and Engineering Intern.

Mentor: An individual offering professional guidance and coaching to an engineer-in-training. A mentorship relationship is distinct and different from a supervisory one, in that a mentor does not assume professional responsibility for the engineer-in-training.

Regulator: A body empowered by legislation to establish the standards for admission to the profession and to regulate the practice of engineering in a province or territory.

Responsible engineer: An engineer who assumes responsibility for the engineering work of an engineer-in-training, and is licensed in the jurisdiction where the engineer-in-training is performing work.

Validator: Responsible engineers who review an applicant's competency self-assessment and provides validation and competence level ratings to the regulator for the examples that the applicant has assigned to them. A validator also provides overall feedback on the applicant's readiness for professional registration or licensure to the regulator.

Note: Situations where an engineer-in-training and responsible engineers have a personal relationship can present real or perceived conflicts of interest and are best avoided. If a relationship exists, regulators should be notified and may require additional references.

BRIEFING NOTE: For decision

Revised Guideline on good character	4.9b
Purpose:	To approve the revised Guideline on good character for publication on the Engineers Canada website.
Link to the Strategic Plan / Purposes:	Core purpose 3: Providing services and tools that enable the assessment of engineering qualifications, foster excellence in engineering practice and regulation, and facilitate mobility of practitioners within Canada.
Link to Corporate Risk Profile:	Diminished scope and value of engineering regulation (Board risk) Diminished national collaboration (Board risk) Client satisfaction (Operational risk)
Motion(s) to consider:	*THAT the Board, on recommendation of the CEQB, approve the revised Guideline on good character.* *THAT the Regulators Guideline on principles for character investigations be archived.*
Vote required to pass:	Simple majority
Transparency:	Open session
Prepared by:	Isabelle Flamand, Specialist, Qualifications
Presented by:	Frank Collins, Chair, Canadian Engineering Qualifications Board

Problem/issue definition

- In April 2022, the Regulators requested that a review of the Regulators guideline on principles for character investigations be prioritized in order to complement the review of the Guideline on good character that was underway.
- Following a Regulator survey in 2023, it was determined that the best path forward was to add to the 2023 Guideline on good character high-level principles of character investigations as Appendix C, and archive the Regulators Guideline on principles for character investigations. In so doing, the latter guideline would no longer need to be maintained as a standalone document.

Proposed action/recommendation

- That the Board, on recommendation of the CEQB, approve the revised Guideline on good character to be published on the website.
- That the Regulators Guideline on principles for character investigations be archived in the members-only section of the website.

Other options considered:

- No other options were considered.

Risks

- None were identified.

Financial implications

- No financial implications were identified.

Benefits

- The revised Guideline on good character will provide transparency and clarity to registrants and the public on the process and principles related to character investigations conducted by the Regulators.
- The revised guideline can help strengthen public trust in the engineering profession by highlighting the profession's commitment to accountability, impartiality, transparency, and ethical practice.
- The guideline will be useful to Regulators in their discipline and enforcement activities.

Consultation

- Prior to reviewing the guideline, a survey was sent to Regulators to help determine the best path forward. Seven out of 12 regulators responded. Based on the feedback received, it was determined that the 2023 Guideline on good character should be revised to include principles of character investigations, and that the Regulators Guideline on principles for character investigations should be archived.
- The Guideline on good character, with Appendix C added, was sent to the Regulators for consultation in April and May 2024. Regulators provided 32 feedback items. While most requested revisions were incorporated, the CEQB recommended that a more fulsome review of certain guideline sections (notably of section 5. Examples) be undertaken during its next review (2029).

Next steps (if motion approved)

- The Guideline on good character will be published on the public website, and the Regulators Guideline on principles for character investigations will be archived on the members-only website.

Appendices

- **Appendix 1:** Revised Guideline on good character – track change versions and clean copies

Guideline on good character

Questions concerning the content of this guideline should be directed to:
Canadian Engineering Qualifications Board
Engineers Canada
ceqb@engineerscanada.ca

1 Introduction

*"Within the **character** of the citizens lies the welfare of the republic."*
— Marcus Tullius Cicero (106 – 43 BC)

This guideline was developed to help define what is meant by "good character" and explain why it is important within the engineering profession in Canada and in the best interest of the public.

Good character is a requirement for~~of engineers~~ registrants[1] of~~in~~ every regulator in Canada [1]. Character is defined as "**1.** the collective qualities or characteristics, especially mental and moral, that distinguish a person or thing. **2.** moral strength. **3.** reputation" [2]. Good character connotes moral and ethical strength and includes traits such as integrity, candour, honesty and trustworthiness.

The evaluation of character, and the agreement of what is considered to be of good or bad character is subjective and fluid. Some behaviours and attitudes that were once tolerated or even encouraged are no longer considered acceptable. Our evaluation of character is influenced by social mores, which vary based on culture and location, and change with time.

This guideline ~~will~~ explains why good character is important within the engineering profession~~,~~ and in the best interest of the public, what types of behaviours are considered good or bad character, and how regulators assess the character of applicants for licensure and registrants.

It is important to note that this guideline does not establish a specific standard or level of good character that must be achieved. Applicants or registrants are not required to prove that they possess all traits of good character; instead, the aim is to ensure that there is no reasonable belief that they lack these traits. Additionally, character assessments of applicants or registrants by regulators are only based on the information that is available or submitted to them.

2 Importance

The purpose of regulating the practice of engineering in Canada is to safeguard life, health, property, economic interests, the public welfare and the environment [3]. In Canada, provincial and territorial governments have recognized engineering as a profession and have given registrants~~engineers~~ the privilege of the exclusive right to practise engineering, and with it, the responsibilities of self-regulation.

Through regulation of the practice of professional engineering, the public trusts that ~~engineers~~ registrants have the technical and ethical competence to serve society and have an obligation ~~willingness~~ to put the public interest first. As the public may lack specialized engineering

[1] "Registrant" means an individual registered with an engineering regulator, and can include but is not limited to engineers, engineers-in-training, members-in-training, engineering interns, permit holders, and licensees.

knowledge, they typically form opinions about ~~engineers~~ registrants based on interpretation of character and the quality of engineering practices. ~~Therefore~~In order to maintain public trust, individual ~~engineers~~ registrants must demonstrate good character, in addition to adhering to their jurisdiction's Code of Ethics. ~~, in order to maintain public trust, and with it the right of self-regulation.~~ Demonstration of good character includes~~, amongst other aspects,~~ conduct within a professional capacity and may also include personal conduct.

The engineering profession understands that public trust is carefully conferred and must be protected; trust is fragile and easily lost. ~~In the best interest of the public, T~~the regulators ~~therefore~~ seek to ensure, in the best interest of the public, that:

i. ~~that~~ all applicants are of good character before admitting them; and,
ii. ~~that~~ all registrants maintain their good character and uphold the reputation of the profession.

This requirement is not unique. In fact, ~~most~~ self-regulated professions (e.g., healthcare professions, law, accounting, etc.) in Canada typically have similar obligations, for similar reasons. Self-regulation is not possible without trust, and the simplest way to gain and maintain that trust is through the good character of individual registrants.

3 Defining good character

3.1 Definition

"Good character" is generally held to comprise three elements:

i. the ability to tell the difference between right and wrong;
ii. the courage to do what's right, no matter the personal consequences; and
iii. the ability to assess these issues, within the context of the practice of the profession, in the best interests of the public as a whole.

3.2 Traits of good character

Making an assessment of an individual's character can be difficult unless you can observe them making the types of decisions described above. Despite these limitations, these observations can be made in various environments, including in virtual and non-professional environments. It is therefore helpful to define traits of good character which can more easily be observed and evaluated.

~~The following are c~~Common traits of good character include, but are not limited to [4]:

- **Trustworthiness:** A trustworthy person is honest, transparent, and reliable. They do what they say they'll do. They have the courage to do the right thing, and they don't deceive, misrepresent themselves, cheat, or steal.

- **Respect:** Showing respect means being considerate of others and not promoting or allowing discriminatory behaviour. It also means using courtesy and treating others with dignity (e.g., with regard to gender identity, sexual orientation, Indigenous identity, age, racial identity, ethnic background, visible or invisible disability, body shape and size, family status, educational experience, etc.). A respectful person makes decisions that show they value their health and the health of others, treating people and property with care.

- **Responsibility:** Being responsible means understanding the consequences of our ~~own~~ actions, being accountable for our choices and decisions, as well as~~nd~~ their impacts, without blaming others for our actions (this includes having the ability to accept the processes of legal or administrative systems, and abiding by the results). Responsible people try to do their best, show humility, are able to accept criticism, and persevere even when things don't go as planned.

- **Fairness:** Being fair means treating others equitably without favoritism or discrimination, being open-minded to different perspectives, empathetic, and listening to others. It means not taking advantage of others, and not blaming them for results outside their control.

- **Integrity:** Having integrity means having the ability to tell right from wrong, making ethical choices, and having the courage to do what is right to ensure the wellbeing and safety of others. Individuals who have integrity ~~have~~ uphold high ethical standards, show respect for the rule of law, including ~~rules~~ principles (i.e., underlying guidelines that influence actions and decisions that are consistent with moral and ethical standards) and human rights regulations, and act in the interest of the common good. They conduct themselves with honesty and candour.

While not an exhaustive list, these traits are indicators which would lead one to believe that an individual ~~does~~ possesses good character. There are many other traits of good character such as inclusivity, transparency, awareness of biases~~positionality~~, honesty, empathy and compassion for human life and welfare, ~~openness~~open-mindedness, etc.

Individuals who advocate for the safety and health of communities they work, live, and engage with, including physical, social, and psychological, are deemed to be of good character as they demonstrate and embody many of the above traits. On the other hand, individuals who commit crimes of moral turpitude (see Appendix A) or violate the Canadian Human Rights Act (see Appendix B) may reveal that they do not exhibit these traits, which would prompt an investigation of the individual's character (see Appendix C).

4 Assessing character

4.1 Applicants for licensure

T~~In order t~~o assess the character of applicants, the regulators may employ tools such as:

- Character references;

- Character-related questions on the application form;
  - Declaration of applications, licensure or disciplinary findings in other jurisdictions
  - Declaration of accuracy of application information submitted
- Requiring applicants to pass a Professional Practice Examination which includes questions topics on law and ethics and the Code of Ethics; and/or
- Criminal background checks.

As stated in the introduction, assessment of character can be subjective, so it is important to consider information from several sources when making an evaluation. A negative finding in any one area does not mean that applicants will be denied licensure, merely that more investigation or a more thorough evaluation may be necessary.

The assessment tools listed above below offer the following types of information.

4.1.1 References

Depending on the jurisdiction, applicants may be required to provide character references from engineers or others, who can attest to the applicant's behaviours first-hand. These references are asked to comment on specific aspectstraits, such as integrity, honesty, and trustworthiness, etc. Because the evaluation of character is subjective, more than one reference is necessary. Examples of the types of inappropriate behaviour that could be raised in these assessments at this point include harassments, discrimination, intimidation, or bullying, of peers, subordinates, clients or supervisors.

4.1.2 Application form

Questions on the application form cover a variety of topics including previous- discipline, investigations, censure, penalties -or disqualification in other jurisdictions or by a regulatory bodiesy (for negligence, unprofessional or unskilled practice), criminal offenses, etc. A declaration of accuracy of submitted information is typically required.

4.1.3 Professional practice examination

The professional practice exam is required by the regulators to determine if an applicant has a good grasp of legal and ethical matters. Although those who pass the exam may not necessarily have better character than those who fail it, aIn cases where Aapplicants who never masterdo not successfully complete the professional practice exam, this are typicallycould indicate that they are not as well equipped to deal with the ethical issues that arise in professional practice.

4.1.4 Criminal background check

Given that the purpose of requiring good character is to ensure that engineers registrants maintain the trust that the public have placed in them, crimes of moral turpitude , defined as "conduct that is considered contrary to community standards of justice, honesty or good morals" should be are the primary areas of concern for regulatory bodies in Canada". Appendices A and B contain lists of crimes that involve moral turpitude and human rights violations.

4.2 Registrants

Once applicants are registered as professionals with the regulator, they are expected to maintain their good character and uphold a the same high standard of professional conduct. It is through the

discipline process that registrants are held to account for their behaviour. ~~In m~~Most regulators do not~~, registrants are not~~ automatically subject registrants to investigation due to criminal offences. However, anyone, including members of the public, may file a complaint against a registrant, and conviction of a criminal offence would be grounds for a complaint and, subsequently, an investigation. Appendix C provides information about character investigations.
Since regulators are concerned foremost with safety and the public interest, and secondly with the reputation of the profession, crimes that put into question whether a registrant can uphold those values are considered the most significant. Crimes of moral turpitude can therefore be the grounds for a finding of "conduct unbecoming a member" or its equivalent.

Similarly to the assessment of applicants for licensure, character references can be used during discipline and investigation processes: typically, more than one individual is asked to comment on their own personal observations of behaviour, based on the complaint.

5 Examples

The following examples illustrate how character has been evaluated by engineering regulators in Canada. Terminology, processes, and outcomes may vary between jurisdictions.

5.1 Applicants for registration

5.1.1 Criminal background checks

An applicant was enrolled in the engineer-in-training program. It was later discovered that the applicant did not accurately provide the mandatory criminal record information as ~~requested~~ required on the application form. The regulator's Registration Committee ~~of that regulator~~ investigated the matter, conducted an interview with the applicant, and subsequently denied the application for registration based on the grounds of a lack of good character for the following reasons:

- the applicant did not accept responsibility for the crimes that were committed,
- the applicant made false statements on the application form, and
- the applicant was not candid in the interview.

5.1.2 History of bad character

A former registrant, who had been written off for non-payment of dues, applied for reinstatement. In the interim between being written off and the application being reconsidered, the individual was subject to disciplinary action. In considering the application for reinstatement, the Registration Committee noted the number of disciplinary orders that the registrant had been subject to in the past and determined that an interview would be necessary. The individual was asked to provide a background on the disciplinary matters, ~~to provide~~ evidence of rehabilitation, and ~~to provide~~ methods of avoiding future complaints from the public but did not comply. The application for registration was subsequently denied on the grounds of a lack of good character for the following reasons:

- the applicant did not take responsibility for the actions that resulted in multiple disciplinary actions;
- the applicant did not have a plan to avoid repetition of these actions; and
- the applicant had a disregard for his duty to uphold and enhance the honour, integrity, and dignity of the engineering profession.

5.1.3 Falsification of documents

An applicant was enrolled in the engineer-in-training program when it was discovered that the marks on the applicant's undergraduate transcript from outside of Canada had been falsified in order to gain entry into a postgraduate engineering program in Canada. The Registration Committee required the engineer-in-training to swear an affidavit that the engineer-in-training had never forged or altered or used a forged or altered degree or transcript of other document or otherwise misrepresented their credentials in any way for the purpose of gaining entry into an academic program or in connection with the application to the regulator. The engineer-in-training was unable to swear the affidavit, as they confirmed that they had falsified the bachelor's marks to gain entry into the postgraduate program. The Registration Committee advised the engineer-in-training that if the regulator receives an application for registration as an engineer from them:

- this situation will be considered with respect to the 'Good Character' requirement;
- the regulator will ask what has been done to mitigate the situation; and
- Council may hold a hearing for suitability for ~~admission to~~ registration under the regulator's good character requirement.

5.1.4 Validator fraud in Competency-Based Assessment (CBA) system

An applicant was enrolled in the engineer-in-training program. The CBA system detected fraudulent activity and alerted the regulator that the applicant may have provided falsified validator information. The Registration Committee contacted the applicant to discuss the potential validator fraud that has been~~was~~ detected. The applicant did not cooperate, and did not provide reasonable explanation or verifiable evidence of a real validator. The application for registration was subsequently denied on the grounds of a lack of good character for the following reasons:

- the applicant provided falsified information within the CBA system, and
- the applicant did not accept responsibility for their actions.

5.2 Registrants

The following examples illustrate how character has been used in the investigation and discipline of registrants of engineering regulators in Canada.

5.2.1 Lack of trustworthiness

A registrant was found guilty of having signed and sealed blank sheets of paper. The registrant was given a three-month suspension and ordered to write and pass the Professional Practice Examination.

5.2.2 Lack of trustworthiness and fairness

A registrant who was a Field Engineer with the Ministry of Forests, responsible for awarding engineering contracts, was found to have set up a company in his wife's name, bid on Ministry jobs, and done work on Ministry time. The registrant was suspended for a period of 14 months.

5.2.3 Lack of respect, compassion or integrity

i. A registrant who had concerns about the structural integrity of a bridge wrote emails stating that the responsible bridge engineer was incompetent. This statement was unfounded and lacked evidence. For these reasons, the registrant was suspended until such time as they were willing to provide an apology for the conduct.

ii. A registrant was found to have discriminated against a woman graduate engineer, having used derogatory terms to address her and making statements such as "You can dance on tables for me, but you will never work for me." The registrant was found guilty of professional misconduct in that his actions were "disgraceful, dishonourable and unprofessional". The registrant's licence was suspended for twelve months, and was not to be reinstated until he took a course related to gender sensitivity, and paid for the costs of the Discipline hearing.

iii. A registrant was found guilty of unprofessional conduct for having repeatedly yelled at a woman colleague, despite written communication from the colleague indicating that the behaviour upset her and was contributing to health problems. The colleague eventually quit as a result of the abusive behaviour. A Discipline panel concluded that this behaviour was "sufficiently extreme so as to reflect badly on the Member and on the profession" and therefore constituted unprofessional conduct. In response to this charge, and to four other charges brought at the same time, related to inflated and inconsistent billing as well as~~nd~~ improper and wrongful filling of liens, the registrant was found to have acted dishonourably, disgracefully and to have shown a lack of integrity. In order to protect the public, preserve the integrity of the profession, deter others from engaging in similar disreputable business practices and d~~r~~enounce the conduct, the registrant was fined $5,000 and his licence was suspended for a period of 8 months.

5.2.4 Lack of responsibility

A registrant was served with a Notice of Hearing to address six allegations of unprofessional conduct. The registrant refused to attend the disciplinary hearing and suggested that the Hearing Panel had no jurisdiction to proceed. The Hearing Panel determined that it did have the jurisdiction to proceed, and the hearing proceeded in the registrant's absence. The registrant made accusations regarding employees and representatives of a regulator of incompetence, stupidity, misconduct, collusion, conspiracy to cover up illegal activity, and suggestions of responding to political interference. These accusations were found to be groundless and showed a blatant disrespect for the registrant's regulator, and that this conduct harmed the honour, dignity, and reputation of the regulator by rejecting and insulting the authority of the regulator and by attempting to limit or restrict the regulator's public duty to carry out its investigation of the complaints against the registrant. After receiving submissions from the Investigative Committee and the registrant, the Hearing Panel found that "the registrant was ungovernable, and could not be permitted to remain as a Member of the profession". The registrant's license was revoked, being

permanently ineligible for registration with the regulator, was ordered to pay a fine of $10,000, as well as the costs of the proceedings.

5.2.5 Criminal convictions

Information was received by a regulator that a registrant had been charged and convicted of possession of child pornography. An investigation was initiated by the regulator. The registrant signed a “resignation agreement” with the Investigation Committee, resigning his registration and agreeing not to apply for reinstatement for at least seven years. It was stated that if the registrant were to apply for reinstatement, he would have to satisfy Council that he was of good character and good repute and that his conviction did not render him unsuitable before he could be reinstated.

Appendix A

The following is a list of crimes that involve moral turpitude, as defined by the United States Department of State Foreign Affairs Manual[2]. These crimes demonstrate conduct that is considered contrary to community standards of justice, honesty or good morals. Conviction of any of these crimes would normally be cause for an investigation of an individual's character.

Crimes against Property

Fraud:

- Making false representation
- Knowledge of such false representation by the perpetrator
- Reliance on the false representation by the person defrauded
- An intent to defraud
- The actual act of committing fraud

Evil intent:

- Arson
- Blackmail
- Burglary
- Embezzlement
- Extortion
- False pretenses
- Forgery
- Fraud
- Larceny (grand or petty)
- Malicious destruction of property
- Receiving stolen goods (with guilty knowledge)
- Robbery
- Theft (when it involves the intention of permanent taking)
- Transporting stolen property (with guilty knowledge)

Crimes committed against governmental authority

- Bribery
- Counterfeiting
- Fraud against revenue or other government functions
- Mail fraud
- Perjury
- Harboring a fugitive from justice (with guilty knowledge)

[2] The US definition of crimes that involve moral turpitude is used throughout Canada.

- Tax evasion (willful)

Crimes committed against a person, family relationship, and sexual morality

- Abandonment of a minor child (if willful and resulting in the destitution of the child)
- Assault (this crime is broken down into several categories, which involve moral turpitude):
    - Assault with intent to kill, commit rape/sexual assault, commit robbery or commit serious bodily harm
    - Assault with a dangerous or deadly weapon
- Bigamy
- Paternity fraud
- Contributing to the delinquency of a minor
- Gross indecency
- Incest (if the result of an improper sexual relationship)
- Kidnapping
- Lewdness
- Manslaughter:
    - Voluntary
    - Involuntary (where the statute requires proof of recklessness, which is defined as the awareness and conscious disregard of a substantial and unjustified risk which constitutes a gross deviation from the standard that a reasonable person would observe in the situation. A conviction for the statutory offense of vehicular homicide or other involuntary manslaughter only requires a showing of negligence will not involve moral turpitude even if it appears the defendant in fact acted recklessly)
- Mayhem
- Murder
- Pandering
- Prostitution
- Rape (including "Statutory rape" by virtue of the victim's age) and sexual assault

Attempts, aiding and abetting, accessories and conspiracy

- An attempt to commit a crime deemed to involve moral turpitude
- Aiding and abetting in the commission of a crime deemed to involve moral turpitude
- Being an accessory (before or after the fact) in the commission of a crime deemed to involve moral turpitude
- Taking part in a conspiracy (or attempting to take part in a conspiracy) to commit a crime involving moral turpitude where the attempted crime would not itself constitute moral turpitude.

Appendix B

The following is a list of prohibited grounds of discrimination, as defined by the Canadian Human Rights Act. Human rights violations would normally be cause for an investigation of an individual's character.

Canadian human rights violations

- Discrimination on the grounds of:
  - race
  - national or ethnic origin
  - colour
  - religion
  - age
  - sex
  - sexual orientation
  - gender identity or expression
  - marital status
  - family status
  - genetic characteristics
  - disability, and
  - a conviction for which a pardon has been granted or a record suspended.

Appendix C

The following principles ~~listed in this document~~ are intended to outline how ~~be used~~engineering regulators may ~~to~~ investigate potential ~~"~~bad~~"~~ character. These principles are not designed to establish a registrant's good character.

Character investigations of registrants

~~, not to prove good character. In most cases~~Generally, a registrant's character is only investigated when there are~~if~~ indications of ~~"~~bad~~"~~ character ~~are raised~~. ~~Typically t~~This will typically include circumstances that provide reasonable grounds to believe that a registrant~~n individual~~ will not act or has not acted, and/or will not practise, or has not practised, engineering in accordance with their respective Engineering Act(s), Bylaws, Regulations or Code(s) of Ethics. Regulators may also conduct character investigations following a complaint or report against a registrant and/or are presented with evidence of unprofessional conduct, professional incompetence, unskilled practice, crimes of moral turpitude, and/or violations of the Canadian Human Rights Act.

M~~In particular, m~~ost regulators will also investigate circumstances where they have reason to believe that an individual (it is important to note that this list is not exhaustive, and additional circumstances may prompt regulatory investigation):

a) has contravened any statute[3] related to the practice of engineering;
b) has committed a criminal offence for which they did not receive a discharge, and a record suspension has not been granted pursuant to the Criminal Records Act (~~see notes in Appendix A~~including conviction[4], discharge[5], and record suspension[6]); It is up to each regulator to decide what type of finding is used as the trigger for character investigations.
c) has been found to be at fault in a civil action relating to negligence in professional practice or a civil action which remains unsatisfied or undischarged;
d) willfully obtains or attempts to obtain registration/licensure or renewal of registration/licensure by cheating, fraud, or forgery, including making any material misrepresentation.
~~d)~~e) ~~i~~Is being investigated~~ions~~ by other jurisdictions or regulatory bodies.

[3] "Statute" means a law passed by the legislative branch of a government (i.e., Engineering Acts, By-laws, guidelines and rules).
[4] A "conviction" is a finding of guilt after trial or through a guilty plea. A conviction appears on a person's criminal record.
[5] A "discharge" is a finding of guilt, but not a conviction. Discharges are granted most often where the offender has no previous criminal record, and the offence is minor. Discharges do not always appear on a person's criminal record. For example, a discharge would appear on a criminal record check done for the purpose of working with vulnerable persons.
A person who receives a discharge can honestly say that they have never been convicted of a criminal offence.
[6] A "record suspension" (formerly called a pardon) allows people who were convicted of a criminal offence to have their criminal record sealed so that the conviction will not show up on a criminal record search.
A record suspension is granted pursuant to the Criminal Records Act, a discharge is granted by a Judge.

The initiation of a character investigation does not necessarily result in a decision to proceed with disciplinary or enforcement action. It is up to each regulator to decide what actions are taken based on their findings.

~~For the specific policies and events that would trigger a character investigation in your jurisdiction, contact your engineering regulatory body.~~

The following ~~principles~~ are considered best practices and represent considerations that should guide investigations of character in ~~those~~ situations such as those mentioned above:

1. Character d~~D~~eterminations ~~of character~~ should ~~all~~ be conducted ~~made in an~~ objectively, openly, and transparently. ~~manner.~~ This requires that the Regulator have adequate training and criteria to identify and evaluate how past behaviour or conduct is considered in the investigation.
2. Fair treatment and due process should be afforded to ~~A~~all individuals involved~~shall be treated fairly and with due process~~.
3. All evidence considered in ~~determination of~~ character assessments ~~must~~ should be validated or corroborated.
4. ~~All individuals~~Registrants and applicants s~~hall~~hould be informed of any complaint(s) against them, subsequent investigations, and provided ~~given~~ an opportunity to respond. ~~to any concerns or issues.~~
5. Consideration of any conduct tending to put character in question shouldall include, but need not be limited to:

    a) the nature of the conduct and the parties involved;
    b) the length of time elapsed since the conduct;
    c) the individual's attitude toward the conduct;
    d) any rehabilitative treatment undergone since the conduct;
    e) whether the conduct would constitute a breach of bylaws or regulations;
    f) any explanation provided by the individual; and
    g) any extenuating circumstances contributing to the conduct.

6. Confidentiality of ~~The regulatory body shall respect the confidentiality of~~ all parties should be respected by the regulatory body, with ~~and only divulge~~ information disclosed only as necessary or as required by law.
7. Although individuals can undergo personal growth and work towards overcoming past character flaws, ~~While character evolves and a person may rehabilitate him or herself over time so as to overcome past character defects, the mere passage of time in the absence of other evidence does not necessarily establish that the character defect has been remedied.~~the mere passage of time alone, without ~~additional~~ evidence of personal growth and work to overcome past character flaws, does not automatically indicate the resolution of those character defects.

8. Determinations of character shouldall be free from discrimination on any basis as specified in the Canadian Human Rights Code and any other Human Rights Code(s) that applyies in the particular jurisdiction. Freedom from discrimination shouldmust consider biases that can affect individuals involved in the character assessment process or be embedded into systems and structures.

Appendix A

Convictions, discharges, pardons and record suspensions

A "**conviction**" is a finding of guilt after trial or through a guilty plea. A conviction appears on a person's criminal record.

A "**discharge**" is a finding of guilt, but not a conviction. Discharges are granted most often where the offender has no previous criminal record and the offence is minor. Discharges do not always appear on a person's criminal record. For example, a discharge would appear on a criminal record check done for the purpose of working with vulnerable persons.

A person who receives a discharge can honestly say that they have never been convicted of a criminal offence.

A "**record suspension**" (formerly called a pardon) allows people who were convicted of a criminal offence to have their criminal record sealed so that the conviction will not show up on a criminal record search.

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End notes

[1] Engineer Here, Engineers Canada, The five requirements for licensure in Canada, online, https://engineerhere.ca/practising-engineering-canada/five-requirements. Retrieved January 5, 2023.
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Guideline on good character

October 2024

Questions concerning the content of this guideline should be directed to:
Canadian Engineering Qualifications Board
Engineers Canada
ceqb@engineerscanada.ca

1 Introduction

*"Within the **character** of the citizens lies the welfare of the republic."*
– Marcus Tullius Cicero (106 – 43 BC)

This guideline was developed to help define what is meant by "good character" and explain why it is important within the engineering profession in Canada and in the best interest of the public.

Good character is a requirement for registrants[1] of every regulator in Canada [1]. Character is defined as "**1.** the collective qualities or characteristics, especially mental and moral, that distinguish a person or thing. **2.** moral strength. **3.** reputation" [2]. Good character connotes moral and ethical strength and includes traits such as integrity, candour, honesty and trustworthiness.

The evaluation of character, and the agreement of what is considered to be of good or bad character is subjective and fluid. Some behaviours and attitudes that were once tolerated or even encouraged are no longer considered acceptable. Our evaluation of character is influenced by social mores, which vary based on culture and location, and change with time.

This guideline explains why good character is important within the engineering profession and in the best interest of the public, what types of behaviours are considered good or bad character, and how regulators assess the character of applicants for licensure and registrants.

It is important to note that this guideline does not establish a specific standard or level of good character that must be achieved. Applicants or registrants are not required to prove that they possess all traits of good character; instead, the aim is to ensure that there is no reasonable belief that they lack these traits. Additionally, character assessments of applicants or registrants by regulators are only based on the information that is available or submitted to them.

2 Importance

The purpose of regulating the practice of engineering in Canada is to safeguard life, health, property, economic interests, the public welfare and the environment [3]. In Canada, provincial and territorial governments have recognized engineering as a profession and have given registrants the privilege of the exclusive right to practise engineering, and with it, the responsibilities of self-regulation.

Through regulation of the practice of professional engineering, the public trusts that registrants have the technical and ethical competence to serve society and have an obligation to put the public interest first. As the public may lack specialized engineering knowledge, they typically form opinions about registrants based on interpretation of character and the quality of engineering

[1] "Registrant" means an individual registered with an engineering regulator, and can include but is not limited to engineers, engineers-in-training, members-in-training, engineering interns, permit holders, and licensees.

practices. In order to maintain public trust, individual registrants must demonstrate good character, in addition to adhering to their jurisdiction's Code of Ethics. Demonstration of good character includes conduct within a professional capacity and may also include personal conduct.

The engineering profession understands that public trust is carefully conferred and must be protected; trust is fragile and easily lost. The regulators seek to ensure, in the best interest of the public, that:

i. all applicants are of good character before admitting them; and,
ii. all registrants maintain their good character and uphold the reputation of the profession.

This requirement is not unique. In fact, self-regulated professions (e.g., healthcare professions, law, accounting, etc.) in Canada typically have similar obligations, for similar reasons. Self-regulation is not possible without trust, and the simplest way to gain and maintain that trust is through the good character of individual registrants.

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Making an assessment of an individual's character can be difficult unless you can observe them making the types of decisions described above. Despite these limitations, these observations can be made in various environments, including in virtual and non-professional environments. It is therefore helpful to define traits of good character which can more easily be observed and evaluated.

Common traits of good character include, but are not limited to [4]:

- **Trustworthiness:** A trustworthy person is honest, transparent, and reliable. They do what they say they'll do. They have the courage to do the right thing, and they don't deceive, misrepresent themselves, cheat, or steal.

- **Respect:** Showing respect means being considerate of others and not promoting or allowing discriminatory behaviour. It also means using courtesy and treating others with dignity (e.g., with regard to gender identity, sexual orientation, Indigenous identity, age, racial identity, ethnic background, visible or invisible disability, body shape and size, family

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Individuals who advocate for the safety and health of communities they work, live, and engage with, including physical, social, and psychological, are deemed to be of good character as they demonstrate and embody many of the above traits. On the other hand, individuals who commit crimes of moral turpitude (see Appendix A) or violate the Canadian Human Rights Act (see Appendix B) may reveal that they do not exhibit these traits, which would prompt an investigation of the individual's character (see Appendix C).

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To assess the character of applicants, the regulators may employ tools such as:

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- Requiring applicants to pass a Professional Practice Examination which includes questions on law and ethics; and/or
- Criminal background checks.

As stated in the introduction, assessment of character can be subjective, so it is important to consider information from several sources when making an evaluation. A negative finding in any one area does not mean that applicants will be denied licensure, merely that more investigation or a more thorough evaluation may be necessary.

The assessment tools listed below offer the following types of information.

4.1.1 References

Depending on the jurisdiction, applicants may be required to provide character references from engineers or others, who can attest to the applicant's behaviours first-hand. These references are asked to comment on specific traits, such as integrity, honesty, and trustworthiness, etc. Because the evaluation of character is subjective, more than one reference is necessary. Examples of the types of inappropriate behaviour that could be raised in these assessments include harassments, discrimination, intimidation, or bullying, of peers, subordinates, clients or supervisors.

4.1.2 Application form

Questions on the application form cover a variety of topics including previous investigations, censure, penalties or disqualification in other jurisdictions or regulatory bodies for negligence, unprofessional or unskilled practice, criminal offenses, etc. A declaration of accuracy of submitted information is typically required.

4.1.3 Professional practice examination

The professional practice exam is required by the regulators to determine if an applicant has a good grasp of legal and ethical matters. In cases where applicants do not successfully complete the professional practice exam, this could indicate that they are not well equipped to deal with ethical issues that arise in professional practice.

4.1.4 Criminal background check

Given that the purpose of requiring good character is to ensure that registrants maintain the trust that the public have placed in them, crimes of moral turpitude , defined as "conduct that is considered contrary to community standards of justice, honesty or good morals" should be the primary areas of concern for regulatory bodies in Canada. Appendices A and B contain lists of crimes that involve moral turpitude and human rights violations.

4.2 Registrants

Once applicants are registered as professionals with the regulator, they are expected to maintain their good character and uphold a high standard of professional conduct. It is through the discipline process that registrants are held to account for their behaviour. Most regulators do not automatically subject registrants to investigation due to criminal offences. However, anyone, including members of the public, may file a complaint against a registrant, and conviction of a criminal offence would be grounds for a complaint and, subsequently, an investigation. Appendix C provides information about character investigations.

Since regulators are concerned foremost with safety and the public interest, and secondly with the reputation of the profession, crimes that put into question whether a registrant can uphold those values are considered the most significant. Crimes of moral turpitude can therefore be the grounds for a finding of "conduct unbecoming a member" or its equivalent.

Similarly to the assessment of applicants for licensure, character references can be used during discipline and investigation processes: typically, more than one individual is asked to comment on their own personal observations of behaviour, based on the complaint.

5 Examples

The following examples illustrate how character has been evaluated by engineering regulators in Canada. Terminology, processes, and outcomes may vary between jurisdictions.

5.1 Applicants for registration

5.1.1 Criminal background checks

An applicant was enrolled in the engineer-in-training program. It was later discovered that the applicant did not accurately provide the mandatory criminal record information as required on the application form. The regulator's Registration Committee investigated the matter, conducted an interview with the applicant, and subsequently denied the application for registration based on the grounds of a lack of good character for the following reasons:

- the applicant did not accept responsibility for the crimes that were committed,
- the applicant made false statements on the application form, and
- the applicant was not candid in the interview.

5.1.2 History of bad character

A former registrant, who had been written off for non-payment of dues, applied for reinstatement. In the interim between being written off and the application being reconsidered, the individual was subject to disciplinary action. In considering the application for reinstatement, the Registration Committee noted the number of disciplinary orders that the registrant had been subject to in the past and determined that an interview would be necessary. The individual was asked to provide a background on the disciplinary matters, evidence of rehabilitation, and methods of avoiding future complaints from the public but did not comply. The application for registration was subsequently denied on the grounds of a lack of good character for the following reasons:

- the applicant did not take responsibility for the actions that resulted in multiple disciplinary actions;
- the applicant did not have a plan to avoid repetition of these actions; and
- the applicant had a disregard for his duty to uphold and enhance the honour, integrity, and dignity of the engineering profession.

5.1.3 Falsification of documents

An applicant was enrolled in the engineer-in-training program when it was discovered that the marks on the applicant's undergraduate transcript from outside of Canada had been falsified in order to gain entry into a postgraduate engineering program in Canada. The Registration Committee required the engineer-in-training to swear an affidavit that the engineer-in-training had never forged or altered or used a forged or altered degree or transcript of other document or otherwise misrepresented their credentials in any way for the purpose of gaining entry into an academic program or in connection with the application to the regulator. The engineer-in-training was unable to swear the affidavit, as they confirmed that they had falsified the bachelor's marks to gain entry into the postgraduate program. The Registration Committee advised the engineer-in-training that if the regulator receives an application for registration as an engineer from them:

- this situation will be considered with respect to the 'Good Character' requirement;
- the regulator will ask what has been done to mitigate the situation; and
- Council may hold a hearing for suitability for registration under the regulator's good character requirement.

5.1.4 Validator fraud in Competency-Based Assessment (CBA) system

An applicant was enrolled in the engineer-in-training program. The CBA system detected fraudulent activity and alerted the regulator that the applicant may have provided falsified validator information. The Registration Committee contacted the applicant to discuss the potential validator fraud that has been detected. The applicant did not cooperate, and did not provide reasonable explanation or verifiable evidence of a real validator. The application for registration was subsequently denied on the grounds of a lack of good character for the following reasons:

- the applicant provided falsified information within the CBA system, and
- the applicant did not accept responsibility for their actions.

5.2 Registrants

The following examples illustrate how character has been used in the investigation and discipline of registrants of engineering regulators in Canada.

5.2.1 Lack of trustworthiness

A registrant was found guilty of having signed and sealed blank sheets of paper. The registrant was given a three-month suspension and ordered to write and pass the Professional Practice Examination.

5.2.2 Lack of trustworthiness and fairness

A registrant who was a Field Engineer with the Ministry of Forests, responsible for awarding engineering contracts, was found to have set up a company in his wife's name, bid on Ministry jobs, and done work on Ministry time. The registrant was suspended for a period of 14 months.

5.2.3 Lack of respect, compassion or integrity

i. A registrant who had concerns about the structural integrity of a bridge wrote emails stating that the responsible bridge engineer was incompetent. This statement was unfounded and lacked evidence. For these reasons, the registrant was suspended until such time as they were willing to provide an apology for the conduct.

ii. A registrant was found to have discriminated against a woman graduate engineer, having used derogatory terms to address her and making statements such as "You can dance on tables for me, but you will never work for me." The registrant was found guilty of professional misconduct in that his actions were "disgraceful, dishonourable and unprofessional". The registrant's licence was suspended for twelve months, and was not to be reinstated until he took a course related to gender sensitivity, and paid for the costs of the Discipline hearing.

iii. A registrant was found guilty of unprofessional conduct for having repeatedly yelled at a woman colleague, despite written communication from the colleague indicating that the behaviour upset her and was contributing to health problems. The colleague eventually quit as a result of the abusive behaviour. A Discipline panel concluded that this behaviour was "sufficiently extreme so as to reflect badly on the Member and on the profession" and therefore constituted unprofessional conduct. In response to this charge, and to four other charges brought at the same time, related to inflated and inconsistent billing as well as improper and wrongful filling of liens, the registrant was found to have acted dishonourably, disgracefully and to have shown a lack of integrity. In order to protect the public, preserve the integrity of the profession, deter others from engaging in similar disreputable business practices and denounce the conduct, the registrant was fined $5,000 and his licence was suspended for a period of 8 months.

5.2.4 Lack of responsibility

A registrant was served with a Notice of Hearing to address six allegations of unprofessional conduct. The registrant refused to attend the disciplinary hearing and suggested that the Hearing Panel had no jurisdiction to proceed. The Hearing Panel determined that it did have the jurisdiction to proceed, and the hearing proceeded in the registrant's absence. The registrant made accusations regarding employees and representatives of a regulator of incompetence, stupidity, misconduct, collusion, conspiracy to cover up illegal activity, and suggestions of responding to political interference. These accusations were found to be groundless and showed a blatant disrespect for the registrant's regulator, and that this conduct harmed the honour, dignity, and reputation of the regulator by rejecting and insulting the authority of the regulator and by attempting to limit or restrict the regulator's public duty to carry out its investigation of the complaints against the registrant. After receiving submissions from the Investigative Committee and the registrant, the Hearing Panel found that "the registrant was ungovernable, and could not be permitted to remain as a Member of the profession". The registrant's license was revoked, being permanently ineligible for registration with the regulator, was ordered to pay a fine of $10,000, as well as the costs of the proceedings.

5.2.5 Criminal convictions

Information was received by a regulator that a registrant had been charged and convicted of possession of child pornography. An investigation was initiated by the regulator. The registrant signed a “resignation agreement” with the Investigation Committee, resigning his registration and agreeing not to apply for reinstatement for at least seven years. It was stated that if the registrant were to apply for reinstatement, he would have to satisfy Council that he was of good character and good repute and that his conviction did not render him unsuitable before he could be reinstated.

Appendix A

The following is a list of crimes that involve moral turpitude, as defined by the United States Department of State Foreign Affairs Manual[2]. These crimes demonstrate conduct that is considered contrary to community standards of justice, honesty or good morals. Conviction of any of these crimes would normally be cause for an investigation of an individual's character.

Crimes against Property

Fraud:

- Making false representation
- Knowledge of such false representation by the perpetrator
- Reliance on the false representation by the person defrauded
- An intent to defraud
- The actual act of committing fraud

Evil intent:

- Arson
- Blackmail
- Burglary
- Embezzlement
- Extortion
- False pretenses
- Forgery
- Fraud
- Larceny (grand or petty)
- Malicious destruction of property
- Receiving stolen goods (with guilty knowledge)
- Robbery
- Theft (when it involves the intention of permanent taking)
- Transporting stolen property (with guilty knowledge)

Crimes committed against governmental authority

- Bribery
- Counterfeiting
- Fraud against revenue or other government functions
- Mail fraud
- Perjury
- Harboring a fugitive from justice (with guilty knowledge)
- Tax evasion (willful)

[2] The US definition of crimes that involve moral turpitude is used throughout Canada.

Crimes committed against a person, family relationship, and sexual morality

- Abandonment of a minor child (if willful and resulting in the destitution of the child)
- Assault (this crime is broken down into several categories, which involve moral turpitude):
    - Assault with intent to kill, commit rape/sexual assault, commit robbery or commit serious bodily harm
    - Assault with a dangerous or deadly weapon
- Bigamy
- Paternity fraud
- Contributing to the delinquency of a minor
- Gross indecency
- Incest (if the result of an improper sexual relationship)
- Kidnapping
- Lewdness
- Manslaughter:
    - Voluntary
    - Involuntary (where the statute requires proof of recklessness, which is defined as the awareness and conscious disregard of a substantial and unjustified risk which constitutes a gross deviation from the standard that a reasonable person would observe in the situation. A conviction for the statutory offense of vehicular homicide or other involuntary manslaughter only requires a showing of negligence will not involve moral turpitude even if it appears the defendant in fact acted recklessly)
- Mayhem
- Murder
- Pandering
- Prostitution
- Rape (including "Statutory rape" by virtue of the victim's age) and sexual assault

Attempts, aiding and abetting, accessories and conspiracy

- An attempt to commit a crime deemed to involve moral turpitude
- Aiding and abetting in the commission of a crime deemed to involve moral turpitude
- Being an accessory (before or after the fact) in the commission of a crime deemed to involve moral turpitude
- Taking part in a conspiracy (or attempting to take part in a conspiracy) to commit a crime involving moral turpitude where the attempted crime would not itself constitute moral turpitude.

Appendix B

The following is a list of prohibited grounds of discrimination, as defined by the Canadian Human Rights Act. Human rights violations would normally be cause for an investigation of an individual's character.

Canadian human rights violations

- Discrimination on the grounds of:
  - race
  - national or ethnic origin
  - colour
  - religion
  - age
  - sex
  - sexual orientation
  - gender identity or expression
  - marital status
  - family status
  - genetic characteristics
  - disability, and
  - a conviction for which a pardon has been granted or a record suspended.

Appendix C

The following principles are intended to outline how engineering regulators may investigate potential bad character. These principles are not designed to establish a registrant's good character.

Character investigations of registrants

Generally, a registrant's character is only investigated when there are indications of bad character. This will typically include circumstances that provide reasonable grounds to believe that a registrant will not act or has not acted, and/or will not practise, or has not practised, engineering in accordance with their respective Engineering Act(s), Bylaws, Regulations or Code(s) of Ethics. Regulators may also conduct character investigations following a complaint or report against a registrant and/or are presented with evidence of unprofessional conduct, professional incompetence, unskilled practice, crimes of moral turpitude, and/or violations of the Canadian Human Rights Act.

Most regulators will also investigate circumstances where they have reason to believe that an individual (it is important to note that this list is not exhaustive, and additional circumstances may prompt regulatory investigation):

a) has contravened any statute[3] related to the practice of engineering;
b) has committed a criminal offence for which they did not receive a discharge, and a record suspension has not been granted pursuant to the Criminal Records Act (including conviction[4], discharge[5], and record suspension[6]); It is up to each regulator to decide what type of finding is used as the trigger for character investigations.
c) has been found to be at fault in a civil action relating to negligence in professional practice or a civil action which remains unsatisfied or undischarged;
d) willfully obtains or attempts to obtain registration/licensure or renewal of registration/licensure by cheating, fraud, or forgery, including making any material misrepresentation.
e) is being investigated by other jurisdictions or regulatory bodies.

[3] "Statute" means a law passed by the legislative branch of a government (i.e., Engineering Acts, By-laws, guidelines and rules).

[4] A "conviction" is a finding of guilt after trial or through a guilty plea. A conviction appears on a person's criminal record.

[5] A "discharge" is a finding of guilt, but not a conviction. Discharges are granted most often where the offender has no previous criminal record, and the offence is minor. Discharges do not always appear on a person's criminal record. For example, a discharge would appear on a criminal record check done for the purpose of working with vulnerable persons. A person who receives a discharge can honestly say that they have never been convicted of a criminal offence.

[6] A "record suspension" (formerly called a pardon) allows people who were convicted of a criminal offence to have their criminal record sealed so that the conviction will not show up on a criminal record search. A record suspension is granted pursuant to the Criminal Records Act, a discharge is granted by a Judge.

The initiation of a character investigation does not necessarily result in a decision to proceed with disciplinary or enforcement action. It is up to each regulator to decide what actions are taken based on their findings.

The following are considered best practices and represent considerations that should guide investigations of character in situations such as those mentioned above:

1. Character determinations should be conducted objectively, openly, and transparently. This requires that the Regulator have adequate training and criteria to identify and evaluate how past behaviour or conduct is considered in the investigation.
2. Fair treatment and due process should be afforded to all individuals involved.
3. All evidence considered in character assessments should be validated or corroborated.
4. Registrants and applicants should be informed of any complaint(s) against them, subsequent investigations, and provided an opportunity to respond.
5. Consideration of any conduct tending to put character in question should include, but need not be limited to:

    a) the nature of the conduct and the parties involved;
    b) the length of time elapsed since the conduct;
    c) the individual's attitude toward the conduct;
    d) any rehabilitative treatment undergone since the conduct;
    e) whether the conduct would constitute a breach of bylaws or regulations;
    f) any explanation provided by the individual; and
    g) any extenuating circumstances contributing to the conduct.

6. Confidentiality of all parties should be respected by the regulatory body, with information disclosed only as necessary or as required by law.
7. Although individuals can undergo personal growth and work towards overcoming past character flaws, the mere passage of time alone, without evidence of personal growth and work to overcome past character flaws, does not automatically indicate the resolution of those character defects.
8. Determinations of character should be free from discrimination on any basis as specified in the Canadian Human Rights Code and any other Human Rights Code(s) that apply in the particular jurisdiction. Freedom from discrimination should consider biases that can affect individuals involved in the character assessment process or be embedded into systems and structures.

End notes

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