# FINAL AGENDA

**200th ENGINEERS CANADA BOARD MEETING**  
February 26, 2020 | 8:30 am – 5:00 pm  
Hilton Lac-Leamy, 3 boulevard du Casino, Gatineau, QC J8Y 6X4 | Salon Royal

Please refer to the [Board Policy Manual](#) and [Bylaw](#)

<table>
<thead>
<tr>
<th>1. OPENING</th>
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<tbody>
<tr>
<td>1.1 Call to order and approval of agenda</td>
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<tr>
<td><em>THAT the agenda be approved and the president be authorized to modify the order of discussion.</em></td>
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<table>
<thead>
<tr>
<th>1.2 Declaration of conflict of interest</th>
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<thead>
<tr>
<th>1.3 Review of previous Board meeting – D. Lynch (attachment page 5 to 7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Action item list</td>
</tr>
<tr>
<td>b) Board attendance list</td>
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<table>
<thead>
<tr>
<th>2. EXECUTIVE REPORTS TO THE BOARD</th>
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<tbody>
<tr>
<td>2.1 President’s report – D. Lynch (attachment page 8 to 10)</td>
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<table>
<thead>
<tr>
<th>2.2 CEO Group report – J. Landrigan (attachment page 11 to 17)</th>
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<tbody>
<tr>
<td>a) October meeting agenda</td>
</tr>
<tr>
<td>b) October meeting record of actions and decisions</td>
</tr>
<tr>
<td>c) October meeting presentation slides</td>
</tr>
<tr>
<td>d) Verbal update from the February meeting to be provided onsite</td>
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<thead>
<tr>
<th>2.3 President’s Group report – G. Eynon (attachment page 18 to 24)</th>
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<tbody>
<tr>
<td>a) October meeting agenda</td>
</tr>
<tr>
<td>b) October meeting presentation slides</td>
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<tr>
<td>c) Verbal update from the February meeting to be provided onsite</td>
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<tr>
<th>3. CONSENT AGENDA</th>
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Board members may request that an item be removed from the consent agenda for discussion.  
*THAT the consent agenda motions listed below (3.1 to 3.3) be approved in one motion.*

<table>
<thead>
<tr>
<th>3.1 Approval of minutes (attachment page 25 to 37)</th>
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<tbody>
<tr>
<td><em>THAT the minutes of the December 9, 2019 Board meeting be approved as presented.</em></td>
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<table>
<thead>
<tr>
<th>3.2 Qualifications Board document (attachment page 38 to 49)</th>
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<tbody>
<tr>
<td><em>THAT the “Regulators guideline on the assessment of engineering work experience using competency-based assessment” be approved for publication on the Engineers Canada members-only website.</em></td>
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<thead>
<tr>
<th>3.3 National position statements (attachment page 50 to 89)</th>
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<tr>
<td><em>THAT the following updated national position statements be approved:</em></td>
</tr>
<tr>
<td>a) Regulating the profession in federally regulated industries</td>
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<tr>
<td>b) Demand-side legislation</td>
</tr>
<tr>
<td>c) Infrastructure</td>
</tr>
<tr>
<td>d) Infrastructure on First Nations reserves and in remote communities</td>
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<tr>
<td>e) Climate change and extreme weather events</td>
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## Break – 15 minutes

### 4. BOARD BUSINESS/REQUIRED DECISIONS

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<tbody>
<tr>
<td>4.1 Draft 2019 Annual performance report – B. Dony, J. Boudreau, L. Doig, J. Holm, M. Mahmoud, D. Lynch, G. McDonald (attachment page 90 to 118)</td>
<td>THAT the Board approve the “2019 Annual performance report” (as amended) for circulation to the Members for information at their Annual Meeting of Members on May 23, 2020.</td>
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<tr>
<td>4.2 Objectives for the chief executive officer for 2020 – D. Lynch (attachment page 119 to 123)</td>
<td>THAT the Board approve the 2020 Objectives for the chief executive officer, on recommendation of the HR Committee.</td>
<td></td>
</tr>
<tr>
<td>4.3 Net asset planning document – L. Doig (attachment page 124 to 130)</td>
<td>THAT the Board approve the net asset structure, on recommendation of the FAR Committee, and direct the Governance Committee to develop a net asset policy in accordance with the structure recommendations.</td>
<td></td>
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<tr>
<td>4.4 Response to the Funding Task Force recommendations - Amendment to Bylaw dealing with the per capita assessment fee – L. Doig (attachment page 131 to 134)</td>
<td>THAT the Board recommend to the Members that the following changes be made to the Bylaw, on recommendation of the FAR Committee:</td>
<td></td>
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<tr>
<td>a) Add as Bylaw 7.2 the following: No later than January 1st of each year, the Board shall recommend to the Members the amount of the Per Capita Assessment that will be in effect on the following January 1st. The Members will consider the recommendation and finalize the amount of the Per Capita Assessment no later than July 1st of each year with the decision by the Members to take effect on the following January 1st.</td>
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<tr>
<td>b) Renumber existing By-law 7.2 to be By-law 7.3, remove the $10.21 Per Capita Assessment amount and change the wording to be: 7.3 Each Member shall pay to Engineers Canada the Member-approved Per Capita Assessment per Registrant of $10.21 within two months of receipt of invoice for same or pursuant to payment schedule reflective of the Members registrant payment schedule.</td>
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<tr>
<td>4.5 Operational imperative 8 – Sub-strategy on fostering recognition of the value of the profession to society and sparking interest in the next generation of engineering professionals – G. McDonald (attachment page 135 to 150)</td>
<td>THAT the Board approve the proposed sub-strategy for Operational imperative 8, on recommendation of the CEO.</td>
<td></td>
</tr>
<tr>
<td>4.6 Operational imperative 9 - Sub-strategy on Indigenous access to engineering – G. McDonald (attachment page 151 to 160)</td>
<td>THAT the CEAB investigate, with appropriate consultation, the potential for the accreditation process to incorporate truth and reconciliation efforts and make recommendations to the Engineers Canada Board, on recommendation of the CEO.</td>
<td></td>
</tr>
<tr>
<td>4.7 Appointment of secretary to the Board – D. Lynch (attachment page 161 to 164)</td>
<td>THAT the Board, on recommendation of the HR Committee: a) remove Stephanie Price as an officer of Engineers Canada, with thanks, and b) appoint Evelyn Spence, Legal Counsel, as Secretary to the Board, the change in office to take effect March 1, 2020.</td>
<td></td>
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</table>
4.8 Board, director, and chair assessment process – D. Lynch
(a) THAT the Board approve the new policy 6.2 Board, committee, and task force chair assessment, on recommendation of the HR Committee.

(b) THAT the Board confirms the structure and content of the following combined surveys, on recommendation of the HR Committee:

<table>
<thead>
<tr>
<th>I. Board assessment</th>
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<tbody>
<tr>
<td>II. Director self-assessment</td>
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<tr>
<td>III. Director peer-assessment</td>
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<tr>
<td>IV. Chair assessment</td>
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</tbody>
</table>

4.9 Generative discussion: value of international agreements to the regulators – D. Lynch

Lunch - 1 hour

5. REPORTS TO THE BOARD

5.1 Accreditation Board update – B. Dony (slides)

5.2 Qualifications Board update – M. Mahmoud (slides)

5.3 Update from the FAR Committee - L. Doig (slides)

5.4 Update from the Governance Committee - J. Holm (slides) (attachment page 189 to 202)

5.5 Update from the HR Committee - D. Lynch (slides)

5.6 Update from the Board’s 30 by 30 Champion - S. Gwozdz (slides)

5.7 Risk register – L. Doig (attachment page 203 to 217)

6. OTHER BUSINESS

7. NEXT MEETINGS

- April 8, 2020 (teleconference)
- May 21-23, 2020 (Winnipeg, MB)
- June 15-16, 2020 (Fredericton, NB)
- October 1-2, 2020 (Gatineau-Ottawa, QC-ON)
8. IN-CAMERA SESSIONS

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, and the secretary.

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.

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.

- **Board approval: HR Committee recommendations for CEO assessment.**

9. CLOSING (motion not required if all business has been completed)
Engineers Canada Board of Directors action log

<table>
<thead>
<tr>
<th>Item</th>
<th>Date of meeting</th>
<th>Action</th>
<th>Responsible</th>
<th>Due date</th>
<th>Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>May 24, 2019</td>
<td>Risk Register - D. Brown commented that there is a need to add a strategic (board) risk on the financial viability due to declining membership of the regulators.</td>
<td>FAR Committee</td>
<td></td>
<td>FAR approved the addition of a strategic risk “Changing demographic of profession affects viability of current structure of federation.”; which will be further defined following the foresight workshop.</td>
</tr>
<tr>
<td>2.</td>
<td>May 24, 2019</td>
<td>C. Lamothe indicated she would like to provide a demonstration on the document management software used by OIQ at board meetings. President Bergeron asked staff to follow up with OIQ to assess the feasibility and utility of using this software.</td>
<td>Secretary</td>
<td></td>
<td>Overview was provided by the service provider, Dilitrust in July. Work to define needs and select appropriate tools will be done in 2020.</td>
</tr>
<tr>
<td>3.</td>
<td>May 24, 2019</td>
<td>It was agreed that a multi-year budget requirement would be added to the Finance, Audit, and Risk Committee Terms of Reference, and that this item would appear in the Board’s action log.</td>
<td>Governance Committee</td>
<td></td>
<td>Terms of reference to be updated by Gov Ctee in annual review (May 2020, latest)</td>
</tr>
<tr>
<td>4.</td>
<td>Oct 4, 2019</td>
<td>G. McDonald to provide monthly updates to Board members to share with the regulators, working with D. Lynch and A. Bergeron to establish a common template.</td>
<td>CEO</td>
<td>Ongoing</td>
<td>Email sent to Board to better understand the requirements, and the first report was circulated in February.</td>
</tr>
<tr>
<td>5.</td>
<td>Oct 4, 2019</td>
<td>Staff to review the webinar solution concerns and make recommendations or implement support as required.</td>
<td>Staff</td>
<td>Ongoing</td>
<td>Underway – targeted questions have been sent to directors who recently experienced issues to further troubleshoot. No further issues have been reported and known issues have resolved.</td>
</tr>
<tr>
<td>6.</td>
<td>Dec 9, 2019</td>
<td>D. Lynch to follow up with Engineers Geoscientists Manitoba, Engineers PEI, and Engineers Nova Scotia to request materials shared on unconscious bias and microaggressions following the sessions hosted at their meetings.</td>
<td>D. Lynch</td>
<td>ASAP</td>
<td>Complete - Materials were received and emailed to the Board on December 18 from the Manitoba session.</td>
</tr>
<tr>
<td>7.</td>
<td>Dec 9, 2019</td>
<td>Management to implement enhanced indicator colours/arrows for future performance reports.</td>
<td>CEO</td>
<td>ASAP</td>
<td>Management is reviewing options for implementation in the May meeting report.</td>
</tr>
<tr>
<td>Item</td>
<td>Date of meeting</td>
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<td>Due date</td>
<td>Update</td>
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<tr>
<td>8.</td>
<td>Dec 9, 2019</td>
<td>Staff to amend the sub-strategy to remove the two tactics relating to engineering programs and the CEAB.</td>
<td>Manager, Diversity, Equity &amp; Inclusion</td>
<td>February meeting</td>
<td>Complete – amended sub-strategy circulated with February agenda book.</td>
</tr>
<tr>
<td>9.</td>
<td>Dec 9, 2019</td>
<td>Board members were asked to provide suggestions on replacement terms for “white paper” via email to R. LeBlanc and/or M. Ouellette.</td>
<td>Board members</td>
<td>ASAP</td>
<td></td>
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## Board Meetings

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Attendance Required</th>
<th>Attendance Not Required</th>
<th>Attendance for Partial Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 23-27, Whitehorse</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>September 6, Emergency T-Conn</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>October 3-4, Ottawa</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>December 6, Ottawa</td>
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<td>✓</td>
<td>✓</td>
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### CEAB

- Jun 1-2, Ottawa, ON
- Sep 18-15, St. John’s NL

### CFOB

- Aug 2-3, T-con
- Sep 16, St. John’s NL

### FAR Committee

- 28-Jun-19
- 06-Sep-19
- 06-Oct-19
- 10-Nov-19
- 16-Nov-19
- 18-Nov-19
- 08-Dec-19

### Governance Committee

- 28-Jun-19
- 05-Sep-19
- 08-Oct-19
- 13-Oct-19
- 18-Oct-19
- 08-Dec-19

### HR Committee

- 25-May-19
- 28-Jun-19
- 03-Oct-19
- 08-Dec-19

### Strategic Plan Task Force

- 05-Nov-19
- 08-Dec-19

**Attendance Required**

**Attendance Not Required**

**Attendance for Partial Meeting**

**Attendance required, sent regrets**

Over the November 2019 to January 2020 period, the President's main Engineers Canada (EC) related activities have consisted of the following:

Represented Engineers Canada, along with CEO G. McDonald, at the ABET Fall Governance Meetings (including the ABET Awards Gala) in Baltimore on November 1-2, 2019. ABET accredits about 4,000 programs at approximately 800 institutions located in 30+ countries. ABET benefits from the help of 1,500 volunteers and 35 staff members. ABET and Engineers Canada have a bilateral Mutual Recognition Agreement (MRA) concerning accreditation of engineering programs in Canada and the US, and ABET and Engineers Canada are two of the six founding members of the Washington Accord. In addition to engineering programs, ABET also accredits engineering technology programs, computing/computer science programs, and applied and natural sciences programs. Each of the four broad areas is organized around a Commission of Technical Societies with delegates provided by the relevant technical societies. ABET has annual revenue of approximately $14 million and receives approximately $11 million in fees from institutions/programs requesting accreditation. The ABET Fall Governance meetings bring together delegates from the societies along with the members of the ABET Board of Directors. At the four meetings of the Commissions, topics discussed included: program visitor selection and preparation, reducing program self-study workload for the institutions, relations with academia, efficiency and effectiveness of accreditation, conduct of virtual visits, equity, diversity and inclusivity initiatives, international activities, maximum duration of accreditation periods, balance of industrial versus academic involvement, qualifications of faculty teaching engineering design (P.E. requirements), and engagement of students and early-stage professionals. There appeared to be a remarkable similarity between the issues confronting ABET and the issues confronting the CEAB, and this was highlighted in comments provided to the ABET Board. Some one-on-one discussion occurred concerning the circumstances under which ABET, if requested by a Canadian Higher Education Institution (HEI), would become involved in accrediting engineering programs in Canada.

Convened via teleconference the inaugural meeting of the Strategic Plan Task Force on Nov 1, 2019. The major topics included: selection of the Chair (President-elect J. Boudreau was selected), review of the Strategic Plan development process, review of the work plan for the Task Force, and consideration of a recommendation to the EC Board concerning the duration of the next Strategic Plan.

Participated via teleconference in a meeting of the Finance, Audit and Risk (FAR) Committee on Nov 13, 2019. The major topics included: Net Asset Policy review and recommendations for the EC Board, presentation on strategic risks, risk register review process, review of TD Insurance affinity program status, recommendation to the EC Board for EC Bylaw changes concerning the Per Capita Assessment fee in response to motions 5753, 5754 and 5755 arising from the Funding Task Force recommendations, and review of EC financials for 2019 Q3 YTD and 2019 Q4 forecast.
Participated via teleconference in a meeting of the Governance Committee on Nov 18, 2019. The major topics included: consideration of a recommendation to the Members regarding a reduction in the size of the EC Board, and consideration of the wording of EC Bylaw changes concerning the Per Capita Assessment fee in response to motions 5753, 5754 and 5755 arising from the Funding Task Force recommendations (provided for Governance Committee input following the FAR meeting discussion and recommendation on Nov 15, 2019).

Chaired via teleconference a meeting of the Human Resources (HR) Committee on Dec 8, 2019 (the meeting was continued on Dec 18th). The main topics included: recommendation to the EC Board regarding the Corporate Secretary, EC Board performance questionnaire, peer and self-assessment questionnaires for EC Board Directors, CEO Objectives for 2020, and recommendation to the EC Board concerning CEO assessment for 2019 and compensation. Interviews had been conducted by HR Committee members in October and November 2019 to obtain input as part of a mini-360 survey of EC Directors, regulator CEOs and EC senior staff concerning the CEO performance during 2019 and the results from these interviews were discussed at the HR Committee meeting.

Chaired the EC Board of Directors meeting on Dec. 9, 2019 in Ottawa. The major items on the agenda concerned the consideration and approval of the following: the 2020 EC Budget, the 2020 CEAB work plan, the 2020 CEQB work plan, the 2020 Board consultation plan, an amended sub-strategy on indigenous access to engineering, policy updates from the Governance Committee, recommendations from the EC Awards program review, the 2022-2024 Strategic Planning Task Force work plan, and a Director-initiated motion (amended) concerning Canadian national entry to practice examination(s) for non-CEAB applicants for licensure.

Chaired a meeting via teleconference on Dec 18, 2019 to review the agenda for the EC Board meeting on Feb 26, 2020.

Engaged in several discussions in Dec 2019 concerning the TD Insurance affinity program and, in conjunction with the EC CEO, formed a small ad hoc advisory group to advise the CEO on procedural matters related to the TD Insurance affinity program, and informed the EC Board of these developments.

In response to a request by the Chair of Engineering Deans Canada (EDC, formerly NCDEAS), arranged for a mutually agreeable date and location for an in-person meeting between representatives of EDC and representatives of Engineers Canada including CEAB representation. This will be a supper meeting in Ottawa on Friday, Feb 7, 2020 immediately prior to the scheduled CEAB meetings on Feb 8-9, 2020.

Represented Engineers Canada at the Canadian Federation of Engineering Students (CFES) Canadian Engineering Leadership Conference (CELC) that was held in Edmonton on January 2-7, 2020. Provided a welcoming address at the CELC Banquet on Jan 2, 2020, participated on Jan 3, 2020 as one of three panel members in a session on “Versatility in Engineering”, and gave a presentation on Jan 3, 2020 concerning the “Vision Behind the University of Alberta’s Engineering Safety and Risk Management Program”.

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**PRESIDENT’S REPORT November 2019 to January 2020**

Page 2 | 3
REGULATOR INTERACTIONS

Participated in a meeting (Nov 6, 2019) at the APEGA offices in Edmonton with APEGA regulatory staff.

Attended (Nov. 19, 2019) an APEGA member recognition/appreciation event in Edmonton and presented Fellowship in Engineers Canada (FEC) certificates and pins to a number of recipients.

Attended (Nov. 29, 2019) the Engineers PEI Annual General Meeting, Luncheon, Technical Presentations and Awards Banquet in Charlottetown. Provided comments on behalf of Engineers Canada at the Annual Meeting and presented Fellowship in Engineers Canada (FEC) certificates and pins to a number of recipients. The Luncheon speaker focused on the topic of “Unconscious Bias”, the technical presentations were on the topics of “Veterinary Medicine Engineering” and “Using Open Data and GIS to Inform Policy and Influence Behavior” (or “The Government that Swallowed a Pond”), and the Banquet speaker (CEQB member Dr. Amy Hsiao, P.Eng.) focused on the “Promoting Girls in Research in Engineering and Sustainability (ProGRES)” program that she has developed at UPEI.

Participated in a meeting (Dec 2, 2019) with the other EC Directors from Alberta along with the APEGA President, APEGA CEO and Registrar and others from APEGA to review and discuss the agenda topics for the EC Board meeting on Dec 9, 2019.

Attended (Dec 10-11, 2019) the APEGA Council Meetings in Edmonton. The major agenda items included approval of the 2020 Budget for APEGA, consideration of a “Governance Framework Review” project, an update from the Registrar & CEO, a presentation from the Chair of the Appeal Board (an APEGA statutory board), a discussion on a mandatory ethics component in the Continuing Professional Development program, and routine Council business (audit committee, current financials, various reports to APEGA Council, etc.).
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<th></th>
<th>AGENDA</th>
<th>Time</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>1</td>
<td>Opening of the meeting</td>
<td>10 min</td>
<td>J. Landrigan</td>
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<tr>
<td></td>
<td>a) Introductions – welcome new members</td>
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<tr>
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<td>b) Review of agenda</td>
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<td></td>
<td>c) Items added to the agenda</td>
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<tr>
<td>2</td>
<td>May 2019 Meeting</td>
<td>20 min</td>
<td>J. Landrigan</td>
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<tr>
<td></td>
<td>a) Record of Decisions and Actions (attachment 2a)</td>
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<td></td>
<td>b) Update on action items (attachment 2b)</td>
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<tr>
<td>3</td>
<td>Regulator roundtable</td>
<td>90 min</td>
<td>All</td>
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<tr>
<td>4</td>
<td>Regulator update on technologists practice rights issues</td>
<td>10 min</td>
<td>All</td>
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<tr>
<td>5</td>
<td>Affinity update</td>
<td>20 min</td>
<td>G. McDonald</td>
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<tr>
<td>6</td>
<td>2022-2024 Strategic Plan, Environmental Scan (attachment 6)</td>
<td>60 min</td>
<td>G. McDonald</td>
</tr>
<tr>
<td>7</td>
<td>EC 2020 Budget (attachment 7)</td>
<td>20 min</td>
<td>G. McDonald</td>
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<tr>
<td>8</td>
<td>Competency Based Assessment Project (attachment 8)</td>
<td>20 min</td>
<td>S. Price</td>
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<tr>
<td>9</td>
<td>Committee Members Lists (attachment 9)</td>
<td>10 min</td>
<td>S. Price</td>
</tr>
<tr>
<td>10</td>
<td>Update on Official Groups (attachment 10)</td>
<td>10 min</td>
<td>S. Price</td>
</tr>
<tr>
<td>11</td>
<td>OP9 (Promote diversity and inclusion in the profession that reflects</td>
<td>30 min</td>
<td>C. Polyzou / J. Southwood</td>
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<td></td>
<td>Canadian society) Feedback to draft sub-strategy (attachment 11)</td>
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<tr>
<td>12</td>
<td>Results of the awards program review (attachment 12)</td>
<td>20 min</td>
<td>B Gibson / J. Southwood</td>
</tr>
<tr>
<td>13</td>
<td>Consultation Schedule 2020 update (attachment 13)</td>
<td>5 min</td>
<td>S Price</td>
</tr>
<tr>
<td>14</td>
<td>II DD update</td>
<td>10 min</td>
<td>S. Price</td>
</tr>
<tr>
<td>15</td>
<td>International mobility update</td>
<td>15 min</td>
<td>S. Price</td>
</tr>
<tr>
<td>16</td>
<td>Timing of Summer 2020 meeting</td>
<td>10 min</td>
<td>All</td>
</tr>
<tr>
<td>17</td>
<td>Presidents’ request for joint meeting time update</td>
<td>5 min</td>
<td>Jim / Bob</td>
</tr>
<tr>
<td>18</td>
<td>Review Board Deck</td>
<td>10 min</td>
<td>All</td>
</tr>
<tr>
<td>19</td>
<td>Meeting review: what went well / even better if</td>
<td>10 min</td>
<td>All</td>
</tr>
<tr>
<td>20</td>
<td>In camera session (if required)</td>
<td>20 min</td>
<td>Regulators only</td>
</tr>
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</table>
Chief Executive Officers Group  
Record of Decisions and Action Items  
October 3, 2019, Ottawa

<table>
<thead>
<tr>
<th>Attendees</th>
<th></th>
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</tr>
</thead>
</table>
| J. Landrigan (Chair)  
Engineers PEI | K. King (vice-Chair)  
Engineers Yukon | J. Bradshaw  
PEGNL |
| L. Daborn  
APEGNB | A. English  
Engineers & Geoscientists BC | L. Golding  
NAPEG |
| G. Koropatnick,  
Engineers Geoscientists Manitoba | R. McDonald  
APEGS | J. Nagendran  
APEGA |
| L. White  
Engineers Nova Scotia | J. Zucon  
PEO |  |

<table>
<thead>
<tr>
<th>Regrets</th>
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| L. Beauchemin  
OIQ |  |  |

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<thead>
<tr>
<th>Engineers Canada Staff</th>
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<tbody>
<tr>
<td>G. McDonald</td>
<td>S. Price</td>
<td>J. Southwood</td>
</tr>
<tr>
<td>C. Polyzou (Agenda item 11)</td>
<td>B. Gibson (Agenda item 12)</td>
<td>M. Arrieta (Agenda item 14)</td>
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<tr>
<td>B. Strawczynski (Agenda item 15)</td>
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Record of Decisions:

1. Group discussed whether EC President should be allowed to attend the CEO roundtable. As similar requests had been denied previous presidents it was decided not to invite the EC president to attend.

2. Regarding the request for a joint meeting with the presidents it was felt that, without a clear understanding of what they were trying to achieve, a joint meeting should be resisted. There was also concern expressed about bypassing the Board with such a meeting.

3. It was suggested that Board size be added to the agenda as well as the emerging disciplines study. All other agenda items were accepted as submitted.

4. CEO group recommends that any additional funding required to support the addition of Canadian competencies to the project be supported.

5. Workplans of officials’ groups were approved.

6. CEO Group concurred with value seen by officials in the IIDD.

7. Summer meeting to be held July 7/8, 2020 at the Delta Grand Okanagan Resort in Kelowna.

8. It was agreed the consultation workshop on the international mobility strategy should take place in April to coincide with the NAOG meeting in Ottawa.
Action Items:

1. Jim to talk to Serge Dupuis regarding Group decision on joint meeting.
2. Ann to share code of conduct for councillors with the Group.
3. Gerard to make necessary arrangements for Summer meeting.

Next Meetings:

February 24, 2020 - Ottawa
May 20, 2020 - Winnipeg
Summer 2020 - Kelowna
Chief Executive Officers Group
Report to the Board

Jim Landrigan, P.Eng.
Executive Director, Engineers PEI
October 4, 2019

Background

- The CEO Group met all day on October 3
- We had representation from all regulators except OIQ
Agenda items of note

The Group received presentations on the following topics:

- 2022-2024 Strategic Plan, Environmental Scan
- Competency Based Assessment Project
- Diversity and inclusion in the profession
- Results of the awards program review
- International mobility update

Competency Based Assessment Project

- CEO's were pleased to see that Engineers and Geoscientists Manitoba have joined the program and that other regulators are giving it serious consideration.

- CEO group recommends that incremental funding required for the addition of Canadian competencies to the project be supported, in principle.
International Institutions and Degrees Awarded Database update

- The Officials Group have reviewed the ongoing utility of the IIDD and concluded that there was merit in updating the system.

- CEO Group concurred with the value seen by officials in the IIDD.

Len White

- CEO Group recognized the invaluable contribution that ENS CEO and Registrar has made in his 20 years attending the Engineers Canada meetings and wished him well on his upcoming retirement.
Questions?

Thank you
MEETING OF THE PRESIDENTS GROUP – AGENDA
Room 210 (Second Floor), Courtyard Marriott Hotel & Ottawa Conference and Event Centre  200
Coventry Road, Ottawa, ON
October 3, 2019, 9:00 am to 4:30 pm
(12pm-1pm lunch break Room 106H First Floor)

<table>
<thead>
<tr>
<th>Chair: Serge Dupuis, EGNB, Vice-Chair: George Eynon, APEGA</th>
<th>Time</th>
<th>Presenter</th>
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</thead>
<tbody>
<tr>
<td>1 Opening of the meeting</td>
<td>15 min</td>
<td>S. Dupuis</td>
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<tr>
<td>a) Introductions – welcome new members</td>
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<td>b) Presidents List Update (attachment 1b)</td>
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<tr>
<td>c) Review of agenda</td>
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<td>d) Items added to the agenda</td>
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| 2 May 23, 2019 Meeting (Quebec City)                        | 10 min | S. Dupuis |
| a) Record of discussion (attachment 2a)                     |      |          |
| b) Update on action items (attachments 2b)                  |      |          |

| 3 New President’s onboarding by Engineers Canada            | 10 min | S. Dupuis |

| 4 Review of Meeting of the Board Agenda Book                | 30 min | S. Dupuis |

| 5 Update on BC Professional Governance Act                  | 10 min | EGBC      |

| 6 Presidents Group/CEO Group joint meeting (attachment 6)   | 20 min | S. Dupuis |

| 7 Presidents Group Terms of Reference (attachment 7)        | 20 min | S. Dupuis |

| 8 Meeting of the Members Chair (attachment 8)               | 20 min | T. Fonstad |

| 9 Reduction in Board size (item 4.12 in Directors meeting)  | 30 min | ENS       |

| 10 Other items added….                                      |      |          |

| 11 Regulator roundtable                                    | 120 min | All      |

| 12 Potential items for next meeting                        | 10 min | All      |

| 13 Review Presentation for the October 4 Directors Meeting  | 15 min | S. Dupuis |

| 14 Chair for next meeting, meetings                        | 10 min | S. Dupuis |

| 15 Meeting review: what went well / even better if          | 10 min | All      |

| 16 Next Presidents Group meetings:                          |      |          |
| a) February 24-26, 2020, Winter Meeting, Ottawa, Ont       |      |          |
| b) May 21-23, 2020, Spring Meeting, Winnipeg, Man          |      |          |

| 17 Group Photo                                             | 5 min | S. Dupuis |

| 18 In camera session (if required)                         | 20 min | Regulators |
Background

- The Presidents Group met all day on October 3, 2019
- We had representation (9 presidents and 4 vice-presidents) from all regulators except Quebec.
Agenda items of note

- George Eynon and David Goosney were chosen as the Chair and Vice-chair of the Group respectively for the next meeting.

- The Group received presentations on the following topics:
  - BC Professional Governance Act (Kathy Tarnai-Lokhorst, Engineers BC)
  - 2022-2024 Strategic Plan (Gerard McDonald, CEO)
    - Presidents Group requests that EC develops clear vision/mission and values statements at the Foresight exercise

Agenda topics discussed

- Having the CEAB and CEQB report to the EC CEO instead of directly to the Board would seem beneficial.
Agenda topics discussed

- Section 5.7 of EC By-laws refers to voting by the Board of Directors.
- In order to avoid many abstention votes thus allowing a motion to pass with a limited number of votes cast, the by-law should state that an abstention vote counts as a vote cast and thus a vote against the motion.

Agenda topics discussed

- Concerns on the reduced membership agreements in time for IPEA and the APEC Engineer.
- The Presidents Group discusses a standardized requirement for continuing professional development (CPD) and who is on board with the competency-based assessment (CBA) approach for licensure.
Agenda topics discussed

- EC board size discussion comes to no consensus other than majority agrees to reduce the board size but split between 12 and 16 directors and also that committee numbers could be reduced.

Agenda topics discussed

- Presidents Group wishes to meet jointly with CEO Group
- Proposal to start the meeting day together and then break out individually to discuss/develop positions.
- Topics could include presentations from EC staff, professional development sessions etc.
- Benefits are to better inform Presidents and to limit rehashing déjà-vu topics from the past.
Agenda topics discussed

- Presidents Group Terms of Reference finalized with final edits.

Section 3.7 of the EC by-laws state that the Meeting of the Members Chairperson is either the EC President or a designate named by the members. In order to allow:
  - A fulsome report from the EC President to the Members
  - Each Member to vote
  - To remove any perceived conflict of interest of the Chairperson being EC President which also reports to the Members

- The Presidents Group recommends naming a designate from the MoM host regulator to chair the meeting.
Merci / Thank you!
Questions?

Merci / Thank you
### The following directors were in attendance

<table>
<thead>
<tr>
<th>Director</th>
<th>Organization</th>
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<tbody>
<tr>
<td>D. Lynch, President (Chair), APEGA</td>
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<tr>
<td>J. Boudreau, President-Elect, APEGNB</td>
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<tr>
<td>A. Bergeron, Past-President, PEO</td>
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<td>C. Bellini, PEO *</td>
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<tr>
<td>T. Brookes, NAPEG</td>
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<tr>
<td>J. Card, PEGNL</td>
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<tr>
<td>L. Champagne, OIQ</td>
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<td>D. Chui, PEO</td>
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<td>L. Doig, APEGA</td>
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<td>J. Dunn, Engineers PEI</td>
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<td>G. Faulkner, APEGA</td>
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<td>D. Gelowitz, APEGS</td>
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<td>S. Gwozdz, OIQ</td>
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<tr>
<td>J. Holm, Engineers &amp; Geoscientists BC</td>
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<tr>
<td>C. Lamothe, OIQ</td>
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<td>D. Nedohin-Macek, Engineers Geoscientists MB</td>
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<tr>
<td>K. Reid, PEO</td>
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<td>J. Tink, APEGA</td>
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<td>R. Trimble, Engineers Yukon</td>
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<td>M. Wrinch, Engineers &amp; Geoscientists BC</td>
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<td>C. Zinck, Engineers Nova Scotia</td>
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### The following directors sent regrets

<table>
<thead>
<tr>
<th>Director</th>
<th>Organization</th>
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<tbody>
<tr>
<td>K. Baig</td>
<td>OIQ</td>
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<tr>
<td>C. Sadr</td>
<td>PEO</td>
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</tbody>
</table>

### The following advisor was in attendance

<table>
<thead>
<tr>
<th>Advisor</th>
<th>Organization</th>
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<tbody>
<tr>
<td>J. Landrigan</td>
<td>Chair, CEO Group</td>
</tr>
</tbody>
</table>

### The following direct reports to the Board were in attendance

<table>
<thead>
<tr>
<th>Direct Report</th>
<th>Organization</th>
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<tbody>
<tr>
<td>B. Dony</td>
<td>CEAB</td>
</tr>
<tr>
<td>G. McDonald</td>
<td>CEO</td>
</tr>
<tr>
<td>R. LeBlanc</td>
<td>CEQB</td>
</tr>
<tr>
<td>S. Price</td>
<td>Executive VP Regulatory Affairs &amp; Secretary</td>
</tr>
</tbody>
</table>

### The following observers were in attendance

<table>
<thead>
<tr>
<th>Observer</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. Bradshaw</td>
<td>CEO &amp; Registrar, PEGNL *</td>
</tr>
<tr>
<td>D. Lake</td>
<td>President, CFES *</td>
</tr>
<tr>
<td>J. Nicell</td>
<td>Chair, EDC *</td>
</tr>
<tr>
<td>L. White</td>
<td>CEO &amp; Registrar, Engineers Nova Scotia *</td>
</tr>
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### The following staff were in attendance

<table>
<thead>
<tr>
<th>Staff</th>
<th>Organization</th>
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</thead>
<tbody>
<tr>
<td>M. Arrietta</td>
<td>Manager, Foreign Credential Recognition *</td>
</tr>
<tr>
<td>S. Francoeur</td>
<td>Director, Human Resources</td>
</tr>
<tr>
<td>R. Gauthier</td>
<td>Executive Assistant *</td>
</tr>
<tr>
<td>B. Gibson</td>
<td>Manager, Communications</td>
</tr>
<tr>
<td>J. Langlois</td>
<td>Manager, Operational Infrastructure*</td>
</tr>
<tr>
<td>C. Mash</td>
<td>Governance Administrator</td>
</tr>
<tr>
<td>J. Monterrosa</td>
<td>Controller</td>
</tr>
<tr>
<td>M. Ouellette</td>
<td>Manager, Qualifications</td>
</tr>
<tr>
<td>C. Polyzou</td>
<td>Manager, Diversity, Equity &amp; Inclusion</td>
</tr>
<tr>
<td>A. Ryan</td>
<td>Executive Assistant</td>
</tr>
<tr>
<td>J. Southwood</td>
<td>VP, Corporate Affairs &amp; Strategic Partnerships</td>
</tr>
<tr>
<td>E. Spence</td>
<td>Legal Counsel</td>
</tr>
<tr>
<td>J. Taylor</td>
<td>Manager, Public Affairs *</td>
</tr>
<tr>
<td>H. Theelen</td>
<td>Manager, Organizational Excellence</td>
</tr>
<tr>
<td>L. Tremblay</td>
<td>Meeting &amp; Event Planner</td>
</tr>
<tr>
<td>M. Warken</td>
<td>Accreditation Manager</td>
</tr>
<tr>
<td>B. Strawczynski</td>
<td>Manager, Regulatory Research &amp; International Mobility *</td>
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*Indicates participation via webinar
1. Opening

1.1 Call to order and approval of agenda
D. Lynch called the meeting to order at 8:32am (ET) and welcomed the participants. Meeting attendees were invited to introduce themselves.

D. Lynch requested to move item 4.11, generative discussion, to follow item 5.8.

Motion 5793
Moved by J. Holm, seconded G. Faulkner
THAT the agenda be approved and the president be authorized to modify the order of discussion.
Carried

Participants were reminded of the meeting rules:

- Raise hand to be added to the list of speakers as maintained by the president-elect.
- Speak for only two minutes (time projected on the screen).
- Speak a second time only if everyone else has had a chance to speak.
- Not restate or reiterate the same point. New information is suggested if individuals speak again. A safe environment is encouraged.

D. Lynch shared a safety minute with the Board, noting that flu season is upon us. Although largely preventable, the flu is a pandemic that can be fatal, regardless of age or general health. Simple precautions can reduce the possibility of contracting the flu, including getting an annual vaccination, hand washing, and refraining from touching the facial area.

D. Lynch also presented a diversity moment. In acknowledgment of the work Engineers Canada is doing towards Indigenous access to engineering, this moment was focused on further acknowledging Indigenous peoples, and their long-standing presence on the lands where we live, learn, and work.

1.2 Declaration of conflict of interest
No conflicts were declared.

2. Executive reports

2.1 President’s report to the Board
A detailed report was pre-circulated. The following feedback and questions were addressed:

- One correction was brought forward, that Len White was recognized for 20 years of service in Nova Scotia by the naming of a “young engineers award” and not an annual scholarship as noted.
- There was interest from directors in obtaining more information on two of the professional development sessions listed in the report; the unconscious bias session hosted in Nova Scotia and the microaggressions in professional and educational settings session at the Ingenium conference in Manitoba. D. Lynch also noted that Engineers PEI recently hosted a plenary session on unconscious bias and that he will request supporting materials for circulation to the Board where they are available.
- It was noted that the information resulting from the generative discussion held at the Association of Consulting Engineers Canada’s (ACEC) National Leadership Conference is relevant to, and should be considered for, incorporation into the Engineers Canada strategic plan environmental scan.
ACTION: D. Lynch to follow up with Engineers Geoscientists Manitoba, Engineers PEI and Engineers Nova Scotia to request materials shared on unconscious bias and microaggressions following the sessions hosted at their meetings.

2.2 Q3 Interim performance report to the Board
The report was pre-circulated with results up to September 30 (Q3). G. McDonald and B. Dony reported on the initiatives currently marked in yellow, notably:

- Affinity programs: the first two months of data received from TD, following APEGA’s exit from the affinity program, indicate that the impact is less severe than originally anticipated, although this will continue to be monitored closely by the Finance, Audit, and Risk (FAR) committee.
- Accountability in accreditation: Although the work was shifted due to a delay in securing a consultant, it is now on track for completion.
- AU consultation feedback: It was noted that this work is delayed to ensure that the deans’ request for extra time to provide input is honoured.

An update was provided on regulators who are using the competency-based assessment system. Participating regulators now have access to their own administration platform, which was previously managed by Engineers & Geoscientists BC. Engineers & Geoscientists BC was commended for their leadership in this area.

A question was raised about the enforcement of marks and how long a provider typically has access to a name before it is blocked. E. Spence explained that Engineers Canada reviews trademark requests during the federal incorporation stage. On a monthly basis, newly advertised federal incorporation trademarks are reviewed for legitimacy. Engineers Canada canvasses the appropriate regulators about licensure and permit to practice for any questionable applications, and action is taken to block those that are deemed inappropriate.

Following a question received, G. McDonald provided background on the recent shift in the Manulife employment insurance participation. Engineers Canada administers this program for most of the regulators, where they can choose the coverage they require based on a menu of options available. In an effort to gain more control over their employment insurance provider, APEGA issued a call for proposals earlier this year. A Manulife representative in Alberta, not aware of the existing relationship, submitted a bid through the broker that APEGA employed to manage the process. The presented proposal was less expensive than the one currently available through Engineers Canada, with a corresponding increase in risk to employee coverage. Engineers Canada expressed their displeasure with this situation and Manulife agreed to offer the same proposal to APEGA through the Engineers Canada program. It was also communicated to APEGA that the new program did increase their level of risk with the coverage that would be provided to employees. Ultimately, APEGA decided to discontinue their participation in the Engineers Canada program in favour of signing an independent contract with Manulife. It was noted that there are no affinity revenues associated with the employment insurance program and there is no impact to Engineers Canada’s rates at this time, although there may be an impact when the contract is renewed in two years due to the reduction in the participation numbers. With the increased risk for employees, Engineers Canada will not be considering a program similar to APEGA’s contract.

The report was commended for its clarity. Discussion was had around exploring the use of more indicator colours, or perhaps arrows for individuals who are colour blind, to demonstrate more nuance in the future.

ACTION: Management to implement enhanced indicator colours/arrows for future performance reports.
3. Consent agenda

3.1 Approval of minutes
   a) THAT the minutes of the September 6, 2019 Board meeting be approved as presented.

3.2 Qualifications Board leadership
   THAT the Board approve the appointment of the Qualifications Board leadership for the period July 1, 2020 to June 30, 2021:
   a) Frank George as Vice-chair;
   b) Mahmoud Mahmoud as Chair; and,
   c) Ron LeBlanc as Past-chair.

3.3 Accreditation Board leadership
   THAT the Board approve the appointment of the Accreditation Board leadership for the period July 1, 2020 to June 30, 2021:
   a) Pierre Lafleur as Vice-chair;
   b) Bob Dony as Chair; and,
   c) Luigi Benedicenti as Past-chair.

Motion 5794
Moved J. Card, seconded L. Doig
THAT the consent agenda items 3.1a), 3.2a), b), c), and 3.3a), b), c), be approved.
Carried

3.3 Approval of minutes
   b) THAT the minutes of the October 4, 2019 Board meeting be approved as presented.
This item was removed from the consent agenda due to an amendment required under Operational Committee review, that one instance of “their” be changed to “his/her”.

Motion 5795
Moved J. Card, seconded L. Doig
THAT the minutes from October 4, 2019 be approved as amended.
Carried

4. Board business/required decisions

4.1 Review of action items from previous Board meetings
D. Lynch presented the matrix of action items arising from previous Board meetings. No questions or comments were received.

4.2 Approval of 2020 Budget
An updated budget document was circulated onsite including new information received after the agenda book deadline. Following the draft that was presented in October, L. Doig highlighted the changes made to the forecast numbers that now include revenues resulting from PEO’s decision to not participate in the affinity program. Additionally, expected revenues from the Manulife affinity program that were included in the budget but not in the initial Q3 forecast have been added.

Given current known revenues for 2020, the operational budget is balanced, with a deficit occurring as a result of significant projects, funded with reserves. The 2020 budget would result in a surplus should PEO decide again to not participate in the affinity program. It was noted that typically, PEO makes their decision to participate in the affinity program after the budget is approved. This year is different since the decision was communicated earlier.
In response to questions from directors, the following clarifications were provided:

- The TD marketing expenditure is a result of the contractual obligation in the event a participating regulator decides to leave. The marketing expenditure resulting from APEGA’s decision to leave the affinity program is not applicable to PEO since they have never participated in the program.
- Due to the delay with the service provider for the accreditation improvement program, work has shifted from 2019 to 2020 resulting in a 2020 budget increase, and a corresponding decrease in 2019 expenditures.
- The IIDD database project will be undertaken by consultants. In-house resources are not currently available for this work.
- There was concern that the current budget format does not allow for analysis on potential areas of waste. FAR will be reviewing internal controls, where this concern will be addressed.
- There was a suggestion to implement an IT steering task force to leverage director expertise and ensure that the right solutions are implemented. G. McDonald noted that the organization’s IT spending is reasonable in comparison to other organizations of similar size and that considering the costs of licenses and salaries, there is no waste. It was also noted that FAR will be looking at procurement processes and that a task force should only be implemented in times of big change.
- With the significant portion of revenues being attributed to the affinity program, a suggestion was made to have a committee focused on insurance, to engage experts in this area to ensure that the program results are maximized. D. Lynch noted that as new agreements are considered, the Board will be fully informed and responsible for approving proposed contracts.
- Certain areas of the budget are flow-through expenses, where revenue is received from other organizations to cover the spending. In these cases, the net effect is presented to ensure the expenditures are not inflated.

Motion 5796  
Moved L. Doig, seconded T. Brookes  
THAT the 2020 operational budget of $11.3 million in revenue and $12 million in expenses be approved.  
Carried

Motion 5797  
Moved L. Doig, seconded J. Card  
THAT the 2020 capital budget of $107,200 be approved.  
Carried

Motion 5798  
Moved J. Dunn, seconded J. Card  
THAT the CEO be directed to use $838,000 from reserve funds on the following significant projects:  
  • Accreditation Improvement Project  
  • Space Program  
  • International Institutions and Degrees Database Improvement Project  
  • Competency-Based Assessment Project  
  • National Membership Database Improvements  
Carried
4.3 2020 CEAB work plan
B. Dony provided introductory comments to the work plan, which was initially provided as a draft in October. The work plan has since been updated to include developing appropriate ways within the accreditation process to incorporate the goals of the 30 by 30 initiative, as decided at the October meeting.

The following information was provided as a result of director questions:

- Regarding the Fall visit schedule, M. Warken clarified that institutions submit their request for accreditation by January 1, 2020 and, as a result, the schedule is not reflected in the work plan. The work is somewhat predictable, and resources will be planned appropriately.
- The CEAB should review the visit materials to ensure regulators are listed as a stakeholder for the accreditation process.
- It was confirmed that the CEAB has a formal process in place for appeals and complaints.
- Concerning the process applied to a focused program visit at one of the higher education institutions (HEIs), B. Dony clarified that it resulted from issues arising from the initial visit. The time between the focused visit and the initial visit allows the institution to make progress on changes to address raised concerns. Moving forward, the accountability in accreditation project outcomes will ensure the Board is informed of CEAB decisions and feedback received.

Motion 5799
Moved J. Card, seconded L. Champagne
THAT the Engineers Canada Board approve the CEAB work plan.
Carried

4.4 2020 CEQB work plan priorities
R. LeBlanc provided introductory comments to the work plan priorities, which were initially provided as a draft in October. The work plan priorities have since been updated to include producing a guideline for engineers and engineering firms on the topic of diversity and inclusion, as decided at the October meeting.

The following feedback was provided:

- All instances of “white paper” will be updated once consensus is reached on a replacement term, to be further addressed under item 5.
- With regards to the public guideline for engineers working internationally and the suggestion to include a note that practitioners could be disciplined for international work if it doesn’t meet the Canadian regulators standards, the CEQB should follow up with regulators to ensure their acts provide the ability to discipline in these cases.

Motion 5800
Moved J. Dunn seconded L. Doig
THAT the Engineers Canada Board approve the CEQB work plan priorities.
Carried
4.5 Approval of the 2020 Board consultation plan
J. Boudreau presented the pre-circulated consultation plan, including the operational plan for information only. No questions or feedback were received.

**Motion 5801**
*Moved K. Reid, seconded A. Bergeron*
*THAT the Engineers Canada Board approve the 2020 Board consultation plan.*
*Carried*

4.6 Operational imperative 9 (OP9): Sub-strategy on Indigenous access to engineering
In addition to the materials included in the agenda book, a letter was received and circulated prior to the meeting from the Engineering Deans Canada (EDC) that raised concerns with the section of the proposed motion focused on the direction to the CEAB. D. Lynch provided background on the communications he had with EDC, that attempts have been made to meet in person and collaboration on scheduling is still underway.

The Board agreed to go in camera to discuss the EDC letter.

**Motion 5802**
*Moved by J. Holm, seconded by A. Bergeron*
*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 members and staff.*
*Carried*

Following the conclusion of the in-camera discussion, the Board moved back into the open session.

**Motion 5803**
*Moved by A. Bergeron, seconded by K. Reid*
*THAT the meeting move back into open session.*
*Carried*

It was agreed to split the motion and to consider the CEQB direction first. Caution was raised around ensuring the guideline is produced using culturally appropriate methods and the CEQB will be planning this activity carefully.

**Motion 5804**
*Moved by A. Bergeron, seconded by L. Doig*
*THAT the Engineers Canada Board direct the CEQB to produce a guideline for engineers and engineering firms on the topic of Indigenous engagement and consultation.*
*Carried*

**Motion 5805**
*Moved by S. Gwozdz, seconded by C. Lamothe*
*THAT the Engineers Canada Board defer the decision to direct the CEAB to develop appropriate ways within the accreditation process to incorporate Truth and Reconciliation efforts to February 26, 2020.*
*Carried – motion deferred to February 26, 2020*

To support the deferral of the CEAB direction, the Board agreed that removal of the two tactics relating to engineering programs and the CEAB on page 6 of the sub-strategy.
Motion 5806
Moved by A. Bergeron, seconded by D. Nedohin-Macek
THAT the Engineers Canada Board approve the proposed sub-strategy for Operational imperative 9 as amended.
Carried

ACTION: Staff to amend the sub-strategy to remove the two tactics relating to engineering programs and the CEAB.

4.7 Approval of policy updates from the Governance Committee
J. Holm presented the pre-circulated policy amendments and rescindments. L. Doig noted that the FAR committee will also be reviewing the policies that relate to finance. It was noted that the preamble for “Role of the Board” policies should include monitoring of the CEO.

Motion 5807
Moved J. Holm, seconded G. Faulkner
a) THAT the Engineers Canada Board approve the following revised policies:
   i. Policy 1.5 About this manual
   ii. Policy 4.9 President’s role
   iii. Policy 4.11 Board management delegation
   iv. Policy 5 Executive duties and limitations
   v. Policy 5.3 Financial condition
   vi. Policy 5.4 Communication and support to the Board
   vii. Policy 5.7 Compensation and benefits
Carried

Motion 5808
Moved R. Trimble, seconded A. Bergeron
b) THAT the Engineers Canada Board approve the new policy 7.10 Consultation.
Carried

Motion 5809
Moved J. Holm, seconded M. Wrinch
c) THAT the Engineers Canada Board approve rescinding the following policies:
   i. Policy 4.6 Accountable to the Board
   ii. Policy 5.8 National position statements
   iii. Policy 5.9 Image protection
Carried

4.8 Engineers Canada Awards Program
G. McDonald provided background on the report that resulted from discussions when formulating the 2019-2021 Strategic plan. The award recommendations were made following extensive stakeholder consultation and should result in the program aligning with Engineers Canada’s purposes and supporting the strategic priorities. The report was commended for clarity and quality of consultation.
Motion 5810
Moved T. Brookes, seconded D. Gelowitz
THAT the Engineers Canada Board approve the recommendations from the Awards program review. Carried

4.9 2022-2024 Strategic Plan Task Force work plan
J. Boudreau presented the pre-circulated work plan. The Board will be updated regularly as this work progresses. It was noted that this work plan complies with the newly approved planning policy.

Motion 5811
Moved C. Lamothe, seconded K. Reid
THAT the Engineers Canada Board approve the 2022-2024 Strategic Plan Task Force work plan. Carried

4.10 Canadian national entry to practice examination(s)
In addition to the pre-circulated documents for this item, a letter was received from A. English, CEO of Engineers & Geoscientists BC, and G. Faulkner, author of the briefing note, provided a response. These communications were circulated in advance of the meeting. G. Faulkner presented the history on this item, noting that his concerns relate to the inconsistent treatment of non-CEAB graduates across the country. This exam could be used by the regulators as needed, and how they use it may vary by jurisdiction (confirmatory, screening). Considering national mobility requirements set by the federal government, all regulators have an interest in establishing a fair and transparent process.

The following feedback was provided by Board members:

• The National Council of Examiners for Engineering and Surveying (NCEES) exams currently used by the majority of Canadian regulators to assess non-CEAB graduates may not be the most appropriate for the Canadian market considering they are produced in the United States and that the content can differ from national standards. Additionally, the regulators that utilize the NCEES’s Fundamentals of Engineering (FE) exam do not typically use the Professional Engineering (PE) exam even though these exams are meant to be used as a two-step process to ensure the candidate is suited to licensure.

• The CEO Group discussed the issue at their recent meeting, and it was agreed that this issue should be discussed through the National Admissions Officials Group, with a resulting recommendation made to the CEO Group to provide the opinion of the regulators that will be affected by this initiative.

• It was noted that APEGs is not in favour of the proposal.

• Removing evaluation in favour of an exam may be considered unfair to late-stage engineers who are specialists in certain areas and not able to pass a general engineering exam.

• Although this initiative is not supported by the current strategic plan, the timing may be right to consider it for the 2022-2024 priorities.

• An option to have the Strategic Plan Task Force (SPTF) manage the work instead of striking a task force was discussed. It was noted that this work does not fit within the SPTF mandate, and that the SPTF is focused on facilitating the production of the plan and not building the content.

• With Engineers Canada staff fully committed to the 2019-2021 Strategic plan, work would need to be deferred if this motion is passed.

• Although the intent is to consider this option for non-CEAB graduates at this time, the deans will need to be consulted. If the exam is implemented and is successful with non-CEAB graduates, it could be considered as a support to the accreditation process. It could also relieve some of the pressure that
the accreditation process causes for the deans. During the CEO discussion, it was noted that several jurisdictions that have fairness commissioners believe that implementing an exam for non-CEAB graduates would most likely result in the exam eventually being required for CEAB graduates as well.

- This is a useful evaluation of a potential tool that should be considered. For this project to be considered in a future strategic plan, information will need to be gathered in advance to ensure regulators understand the implications. The evaluation should move forward, and perhaps there may be opportunities for the CEQB to manage the analysis as it fits in their mandate. R. LeBlanc noted that should the motion be amended to direct the CEQB, the CEQB’s extensive work plan consultation process could result in the evaluation work being rejected.

An amendment to the original motion was proposed to direct the CEQB to undertake this work, in place of striking a task force. The mover and seconder agreed to the amendment.

**Motion 5812**

*Moved G. Faulkner, seconded L. Doig*

*THAT Engineers Canada Board direct the CEQB to consider for their 2021 work plan the production of an analysis and recommendation regarding the feasibility of developing and/or managing national, psychometrically valid, Canadian engineering technical exam(s) to be used by regulators for non-CEAB applicants for engineering licensure within their jurisdictions. Carried*

5. Reports to the Board

5.1 Accreditation Board update

B. Dony presented the report slides. Board members were reminded to complete the accountability in accreditation survey. No questions or feedback were received.

5.2 Qualifications Board update

R. LeBlanc presented the report slides. The QB is working on finding a replacement term for “white paper” and it has been difficult to achieve consensus. “Position paper” was considered most appropriate as a replacement. However, feedback was received that this term causes a false sense that the paper would reflect the position of all regulators. No questions or feedback were received.

**ACTION:** Board members were asked to provide suggestions on replacement terms for “white paper” via email to R. LeBlanc and/or M. Ouellette.

5.3 Update from the FAR Committee

L. Doig presented the report slides. It was noted that the quarterly update provided as additional information to the update is also subject to the new forecast information as provided onsite. No questions or feedback were received.

5.4 Update from the Governance Committee

J. Holm presented the report slides. No questions or feedback were received.

5.5 Update from the HR Committee

D. Lynch presented the report slides. It was clarified that the Board and director assessment surveys will result in recommendations for continuous improvement and inform nomination and committee appointment processes.
5.6 **Update from the Board’s 30 by 30 Champion**
S. Gwozd presented the report slides. Additionally, recent interviews have taken place on CBC Radio Canada to further outreach. No questions or feedback were received.

5.7 **International Institutions and Degrees Database (IIDD) feasibility study**
G. McDonald presented the pre-circulated report, resulting from the budget discussions in 2018, when IIDD was brought forward for consideration by the Board. Following consultation, the consensus reached was that the IIDD is useful for the regulators and the improvements should be implemented. No questions or feedback were received.

5.8 **Risk register**
L. Doig presented the current risk register and highlighted the new column that indicates the committee owner of each risk. Each committee will be encouraged to discuss their risks at each meeting and to provide updates to FAR. Additionally, FAR will be undergoing deep-dives on sections of the risk register, beginning with strategic risks reviewed at their recent meeting.

G. McDonald reported on the operational risks. With the newly approved travel policy, risk 12 has been reduced. The most impactful risk at this time is risk 19 financial, relating directly to the affinity program participation which has shifted to severe given the recent APEGA decision and feedback from Nova Scotia. Risk 27 Internal support to staff will be decreased on the next register presentation with the executive assistant roles having been recently filled. Following questions received, the following was noted:

- While the PIEVC divestment risk was reduced for the October report due to negotiations beginning with a bidder to take over the program, this risk will only reduce further once the contracts have been signed.
- The risk associated with paper files in the office will reduce as the documents, mainly consisting of historical information and confidential HR files, are converted to electronic storage.
- Failing to resolve issues with accreditation will have a significant impact on the risk 35, holism of the federation. Although this is specifically referenced in risk 26 Accreditation process, there is a strong linkage. It is challenging to demonstrate the intersection between the risks.
- Consider an edit for the symptoms of risk #26 to list “Dissatisfaction of a regulator and/or HEI with Accreditation”.
- The consultation program engagement will track how many consultations there were, how many people were invited and how many participated.

G. McDonald noted that for the February meeting, one-page documents will be produced for risks marked as red that provide background on the issue, with details on how the risk is being managed and when it will be reduced.

4.11 **Generative discussion**
It was agreed to table this item to the February meeting agenda to ensure adequate time for discussion.

6. **Other business**
It was noted that the May meeting coincides with Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT) 2020 and that it would be valuable to try to coordinate an opportunity to have the Board participate, as scheduling permits.
7. Next meetings
The next meetings of the Engineers Canada Board are scheduled as follows:
- February 24-26, 2020 (Ottawa, ON)
- April 8, 2020 (teleconference)
- May 21-23, 2020 (Winnipeg, MB)
- June 15-16, 2020 (Fredericton, NB)

The Board was reminded that the deadline to submit items for the February agenda is December 11, 2019.

6. In-camera sessions

Motion 5813
Moved D. Gelowitz, seconded J. Holm
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, and the Secretary.
Carried

Motion 5814
Moved K. Reid, seconded C. Zinck
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

Motion 5815
Moved D. Chui, seconded G. Faulkner
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

7. Closing

Motion 5816
Moved D. Gelowitz, seconded A. Bergeron
THAT the meeting be terminated.
Carried

Minutes prepared by C. Mash for:

David T. Lynch, PhD, P.Eng., FEC, President
Stephanie Price, P.Eng., CAE, Secretary to the Board
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BRIEFING NOTE: For decision

<table>
<thead>
<tr>
<th>Qualifications Board document</th>
<th>3.2</th>
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| Purpose: | The purpose of this agenda item is to approve the draft “Regulators guideline on the assessment of engineering work experience using competency-based assessment”.
| Link to the strategic plan | Operational imperative 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. Strategic priority 4: Competency-Based Assessment Project |
| Motion(s) to consider: | THAT the “Regulators guideline on the assessment of engineering work experience using competency-based assessment” be approved for publication on the Engineers Canada members-only website. |
| Vote required to pass: | Simple majority |
| Transparency: | Open session |
| Prepared by: | Mélanie Ouellette, Manager, Qualifications |
| Presented by: | Ron LeBlanc, Chair, Qualifications Board |

Problem/issue definition
- As the 2009 “Guideline on the Assessment of Engineering Work Experience” is over five years old, an automatic review was triggered as part of the 2019-21 CEQB Work plan.
- This review was identified as a priority for the National Admission Officials Group, who asked that the revised document include reference to competency-based assessment.
- The revised document solely focuses on competency-based assessment to reflect Strategic Priority 4 (SP4) of the 2019-2021 Strategic plan and to foster adoption of a nationally-available online competency-based assessment framework and system.

Proposed action/recommendation
- It is recommended that the Engineers Canada Board approves the dissemination of the guideline on the members-only site.

Other options considered:
- Given that the Engineers Canada Board directed the CEQB to develop this document, no other options were considered.

Risks
- Given that the guideline has gone through a national consultation, not approving the document could negatively impact relationship with regulators.

Financial implications
- There are no financial implications as existing internal resources will be used to publish the guideline.
**Benefits**

- **Engineering regulators**: Regulators have a document that highlights the core guiding principles of competency-based assessment.
- **Engineers Canada**: This guideline reflects SP4 of the strategic plan by fostering the adoption of a nationally-available online competency-based assessment framework and system.

**Consultation**

- Regulators were consulted between April and June 2019. This Guideline was also discussed during the National Admission Officials Group September face-to-face meeting.
- Received feedback was consolidated and informed the final guideline and the summary table was shared with the National Admission Officials Group and individual regulators whom provided feedback.

**Next steps (if motion approved)**

- The guideline will be published on the members-only website.

**Appendices**

- The guideline is attached.
Regulator guideline on assessment of engineering work experience using competency-based assessment

BACKGROUND
As per the Public guideline on the admission to the practice of engineering, work experience is one of the five requirements to obtain a licence to competently practise engineering in Canada. Provincial and territorial regulators have the legislative authority to determine their threshold and admission processes for licensure, including for work experience. As with other self-regulated professions in Canada, the assessment of engineering work experience is typically performed by technically competent, professional engineering license holders (or equivalent) that validate and/or grade competency examples to evaluate applicants’ readiness for licensure.

Being a member of the engineering profession is more than the ability to perform technical work; it includes a consistent demonstration of commitment to the tenets of the Code of Ethics. As a result, work experience assessment includes ensuring that the candidate has worked ethically, with integrity, and within professional standards (including Code of Ethics compliance).

One of the options available to engineering regulators for assessing work experience is to use competency-based assessment (CBA), a process where the applicant provides examples demonstrating how they fulfill a set of pre-determined competencies that are subsequently validated by peers then assessed. Transitioning to CBA is expected to benefit:

1. **Applicants**, who are provided with an opportunity to self-assess their existing level of competency, can seek tailored feedback on obtaining their engineering licence. They can also leverage competencies to request learning and experience opportunities from their employers to meet the work experience licensing requirement.

2. **Regulators**, who will have documented, evidence-based, transparent decision-making, can leverage this process to demonstrate to the public and government that the profession is open, accessible, and can be trusted to self-regulate. They can also leverage the competencies to communicate to employers and engineers-in-training what constitutes the practice of engineering and expectations of their continuing professional development training. From an operational perspective, the CBA online system has been shown to be more time and cost-effective to manage than paper-based processes. Finally, it has also enabled regulators to reach other potential volunteers outside their immediate circle, which can help decrease volunteering fatigue and encourage renewal.

3. **Public and government**, who are continuously served by engineers who demonstrated their competency in the practice of engineering.

As the majority of Canadian engineering regulators are moving toward adopting CBA, the purpose of this guideline is to provide higher-level guiding principles for Pan-Canadian CBA so that consistency of adoption and implementation is fostered across jurisdictions.
OVERVIEW OF THE COMPETENCY-BASED ASSESSMENT PROCESS

CBA is a process where the applicant provides detailed work experience examples, against the following pre-determined, Pan-Canadian competencies categories:

1. Technical competence
2. Communication
3. Project & financial management
4. Team effectiveness
5. Professional accountability
6. Social, economic, environmental & sustainability
7. Personal continuing professional development (CPD)

Regulators, at their discretion, might choose to adopt all or several of these competencies.

As part of its typical accreditation criteria, the Canadian Engineering Accreditation Board (CEAB) requires higher education institutions to demonstrate that their programs expose their graduates to the following attributes:

1. A knowledge base for engineering
2. Problem analysis
3. Investigation
4. Design
5. Use of engineering tools
6. Individual and team work
7. Communications skills
8. Professionalism
9. Impact of engineering on society and the environment
10. Ethics and equity
11. Economics and project management
12. Life-long learning

The CBA Pan-Canadian competencies are meant to reflect these abilities, knowledge, and skills exhibited by an individual so that the individual on a typical path to licensure carries them across different career stages. The use of Canadian competencies as one of the potential alternatives to the one-year Canadian environment experience requirement for licensure is a developing concept that is being adopted by some jurisdictions.

A full description of these competencies is available on the Pan-Canadian Competency Assessment Website. A summary of the detailed competencies is included in Appendix 1. These are subject to revision so the link to the Pan-Canadian website is the official source of these competencies. Regulators, at their discretion, may choose to partially or fully adopt these competencies and indicators.

The applicant must provide an employment history and a self-assessment of their own competence levels for each Pan-Canadian competency according to a pre-determined rating scale.
Once the applicant has provided examples of each competency, an individual who directly supervised or observed the work must attest to the veracity of the example. These individuals are called “validators.”

While validators can be supervisors, employers, colleagues, and/or clients, preference is given to selecting engineers who have taken legal responsibility for the work of the applicant for the following reasons:

- They are bound by their professional [Code of Ethics](#) to “Conduct themselves with integrity, equity, fairness, courtesy and good faith towards clients, colleagues and others, give credit where it is due, and accept, as well as give, honest and fair professional criticism.”
- They are in the best position to confirm that the applicant possesses the skills, knowledge, and abilities to practise competently in their disciplines without supervision.

Validators must:

- Verify that the applicant performed the work experience as submitted.
- Provide a score on competence level.
- Provide an opinion on the applicant’s readiness for licensure.

Once the validators have provided their input on all competencies, the work experience examples are submitted for assessment. An assessor (a qualified engineer with experience in the relevant area of practice) reviews both the applicant’s and the validators’ information. The assessor then provides a score for each competency and makes a recommendation on the applicant’s readiness for licensure.

Some jurisdictions are using two assessors to review the applicant’s competencies. If the assessors do not agree that the applicant has met any competency requirement, a third assessor may be used to finalize the assessment. In addition, an interview or other forms of assessment might be conducted if necessary.

**GUIDING PRINCIPLES**

The following section presents guiding principles that frame the use of CBA:

1. **Regulators are encouraged to adopt the same competencies.**
   Common processes and criteria that set a transparent, multi-jurisdictional experience threshold for licensure foster consistency of outcomes across jurisdictions and facilitate inter-jurisdictional mobility for engineering licence holders and applicants. They demonstrate to applicants, the public, and governments that the profession is accessible and fair and that the work experience standard was adopted for a rational purpose.

2. **Regulators should provide training tools to applicants, assessors, and validators.**
   While competencies and indicators are pre-determined for all applicants, consistency of outcomes relies on similar interpretation and decision-making across all applicants, validators, and assessors. Regulators are encouraged to provide them with training tools to minimize discrepancies in results. Tools can
include, but are not restricted to, videos, in-person sessions, mentoring, and/or allocating staff resources to answer any questions.

3. **Regulators should seek to provide alternative assessment tools.** The ultimate goal of admission processes is to ensure that only competent individuals are licensed. While CBA is the preferred method for many regulators to assess work experience, flexibility could also be allowed for some applicants, under some circumstances, to demonstrate competency through other means (such as an interview). Providing that flexibility is desirable as it demonstrates that the profession takes reasonable steps to accommodate applicants.

If additional information is requested, the regulator should make it clear to the candidate that this is for the purpose of meeting the work experience requirement and not an additional requirement in itself.

4. **Regulators are encouraged to provide a path for applicants with competency gap(s).** Applicants typically achieve the various competencies at a different pace. Regulators, at their discretion, are encouraged to allow the applicant to demonstrate competencies over a period of time. A best practice is also to adopt an initial self-assessment tool so that applicants have a better understanding of their strengths and weaknesses prior to starting the application process.

5. **Regulators are encouraged to adopt information management and privacy protection policies.** Given the important level of personal information collected, regulators require robust internal information management policies and procedures. Multi-jurisdictional information management agreements should be ratified when joining the Pan-Canadian competency assessment system.

**CONCLUSION**
This guideline provides an overview of the process of using CBA when evaluating the work experience of an applicant.
DEFINITIONS

Assessor: Professional engineers who have been trained in the use of competency-based assessment and are qualified in the applicant’s area of practice.¹

Competency: ability to perform the tasks and roles of an occupational category to standards expected and recognized by employers and the community at large.

Competency categories: categorical groupings of competencies or skills.

Competencies: an identified skill-set or knowledge-base that the candidate must have attained to achieve professional registration. They are behavioural-type descriptions of what an applicant should demonstrate they have done in practice to meet the required level of expertise in each competency category.

Indicators: specific examples of activities, actions, skills, or behaviours that an applicant could use to demonstrate the existence and achievement of a competency. They are provided to help applicants to understand what types of examples are required to meet each requirement, or what specific knowledge-base, experience, or skill they must develop before achieving registration.

Validator: supervisor/employer/colleague/client of the applicant who has directly supervised or observed the work.

¹ The Association of Professional Engineers and Geoscientists of Alberta refers to their assessors as examiners.
APPENDIX 1: COMPETENCIES

A more detailed description of the competencies is available on the Pan-Canadian Competency Assessment [website](#).

### 1. Technical competence

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<thead>
<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>1.1</td>
<td>Demonstrate knowledge of regulations, codes, standards, and safety - this includes local engineering procedures and practices as applicable.</td>
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<tr>
<td>1.2</td>
<td>Demonstrate knowledge of materials, or operations as appropriate, project and design constraints, design to best fit the purpose or service intended and address interdisciplinary impacts.</td>
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<tr>
<td>1.3</td>
<td>Analyze technical risks and offer solutions to mitigate the risks.</td>
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<tr>
<td>1.4</td>
<td>Apply engineering knowledge to design solutions.</td>
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<tr>
<td>1.5</td>
<td>Be able to understand solution techniques and independently verify the results.</td>
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<tr>
<td>1.6</td>
<td>Safety awareness: be aware of safety risks inherent in the design; and demonstrate safety awareness - on-site and possible safety authorization/certificate as appropriate.</td>
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<tr>
<td>1.7</td>
<td>Demonstrate understanding of systems as well as of components of systems.</td>
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<tr>
<td>1.8</td>
<td>Exposure to all stages of the process/project life cycle from concept and feasibility analysis through implementation.</td>
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<tr>
<td>1.9</td>
<td>Understand the concept of quality control during design and construction including independent design check and independent reviews of design, field checks, and reviews.</td>
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<tr>
<td>1.10</td>
<td>Transfer design intentions to drawings and sketches; understand transmittal of design information to design documents.</td>
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### 2. Communication

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<thead>
<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>2.1</td>
<td>Oral communication.</td>
</tr>
<tr>
<td>2.2</td>
<td>In writing.</td>
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<tr>
<td>2.3</td>
<td>Reading and comprehension.</td>
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### 3. Project and financial management

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<tr>
<th></th>
<th>Description</th>
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<tbody>
<tr>
<td>3.1</td>
<td>Awareness of project management principles.</td>
</tr>
<tr>
<td>3.2</td>
<td>Demonstrate increasing level of responsibility for project planning and implementation.</td>
</tr>
<tr>
<td>3.3</td>
<td>Manage expectations in light of available resources.</td>
</tr>
<tr>
<td>3.4</td>
<td>Understand the financial aspects of their work.</td>
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<tr>
<td>3.5</td>
<td>Ask for and demonstrate response to feedback.</td>
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### 4. Team effectiveness

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<th>Description</th>
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<tbody>
<tr>
<td>4.1</td>
<td>Work respectfully and with other disciplines/people.</td>
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<tr>
<td>4.2</td>
<td>Work to resolve differences.</td>
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</table>
### 5. Professional accountability

<table>
<thead>
<tr>
<th>5.1</th>
<th>Work ethically, with integrity, and within professional standards.</th>
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<tr>
<td>5.2</td>
<td>Demonstrate an awareness of your own scope of practice and limitations.</td>
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<tr>
<td>5.3</td>
<td>Understand how conflict of interest affects your practice.</td>
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<tr>
<td>5.4</td>
<td>Demonstrate awareness of professional accountability.</td>
</tr>
<tr>
<td>5.5</td>
<td>Demonstrate an understanding of appropriate use of the stamp and seal.</td>
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<tr>
<td>5.6</td>
<td>Understand own strengths/weaknesses and know how they apply to one's position.</td>
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</tbody>
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### 6. Social, economic, environmental, and sustainability

<table>
<thead>
<tr>
<th>6.1</th>
<th>Demonstrate an understanding of the safeguards required to protect the public and the methods of mitigating adverse impacts.</th>
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<tr>
<td>6.2</td>
<td>Demonstrate an understanding of the relationship between the engineering activity and the public.</td>
</tr>
<tr>
<td>6.3</td>
<td>Understand the role of regulatory bodies on the practice of engineering.</td>
</tr>
<tr>
<td>6.4</td>
<td>Be aware of any specific sustainability clauses that have been added to practice guidelines that apply to their area.</td>
</tr>
<tr>
<td>6.5</td>
<td>To the extent possible, recognizing the applicant's position of influence, consider how sustainability principles could be applied and promoted in his/her specific work.</td>
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### 7. Professional development

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<tr>
<th>7.1</th>
<th>Demonstrate completion of professional development activities.</th>
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<tr>
<td>7.2</td>
<td>Demonstrate awareness of gaps in knowledge and areas requiring future development.</td>
</tr>
<tr>
<td>7.3</td>
<td>Develop a professional development plan to address gaps in knowledge and maintain currency in field of practice.</td>
</tr>
</tbody>
</table>
APPENDIX 2: REFERENCES


Association of Professional Engineers and Geoscientists of Saskatchewan, APEGs Competency-Based Assessment Guide For Professional Engineering Applicants, Validators, and Experience Examiner, online, https://www.apegs.ca/Portal/Sites-Management/FileDownload/DataDownload/34435/Competency%20Assessment%20Guide%202018_APEGs_v5/pdf/1/1033


Engineers & Geoscientists BC, Competency Rating Scale Summary, online, https://www.egbc.ca/getmedia/1fbd065e-0c88-4286-826a-0ec416278fd7/Competency-Rating-Scale-Summary.pdf.aspx


South Africa Engineering Council, Guide to the Competency Standards for Registration as a Professional Engineer, online, https://www.ecsa.co.za/register/Professional%20Engineers/R-08-PE.pdf

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**BRIEFING NOTE: For decision**

<table>
<thead>
<tr>
<th>National position statements</th>
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<tr>
<td><strong>Purpose:</strong></td>
<td>Approval of updated national position statements.</td>
</tr>
<tr>
<td><strong>Link to the strategic plan</strong></td>
<td>Operational Imperative 5: Advocating to the federal government</td>
</tr>
<tr>
<td><strong>Motion(s) to consider:</strong></td>
<td>THAT the following updated national position statements be approved:</td>
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<tr>
<td></td>
<td>• Regulating the profession in federally regulated industries</td>
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<td>• Demand-side legislation</td>
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<td></td>
<td>• Infrastructure</td>
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<td>• Infrastructure on First Nations reserves and in remote communities</td>
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<td>• Climate change and extreme weather events</td>
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<td><strong>Vote required to pass:</strong></td>
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**Prepared by:** Joey Taylor, Manager, Public Affairs

**Presented by:** Lisa Doig, Member, Public Affairs Advisory Committee

**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, the PAAC works to update the current NPSs to ensure they remain up to date and relevant. This helps ensure that parliamentarians and federal government consider the expertise of the engineering profession in policy-making.
- The current process for deciding which topics the committee will be developing in the upcoming year starts with a discussion of the potential topics during the committee’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 the committee are circulated for approval by the Engineers Canada Board and the CEO Group. 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 engineering regulator is available in [Board policy 9.3 national position statements](#).
- The current NPSs are linked to *Operational imperative 5: Advocating to the federal government* of the strategic plan. These NPSs are timely given the new federal government’s initiatives focused on infrastructure and climate change. These NPSs will serve to influence and/or inform the federal government on this issue facing the engineering regulators and the engineering profession.
**Proposed action/recommendation**
- The PAAC recommends that the Engineers Canada Board approves the attached national position statements (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**
- If the motion to approve the NPSs does not pass, there will be no unified national position on these topics that currently impact the future of the profession.

**Financial implications**
- N/A

**Benefits**
- Engineering regulators:
  - A national position on key issues is beneficial for the engineering regulators as these issues affect the regulators and the regulation of the engineering profession. Regulators strongly benefit from unified, national positions.
  - Engineer Canada will have a unified position on two topics that the federal government in which is heavily engaged; therefore, it will potentially increase our profile with parliamentarians and public servants.
  - The statements highlight the work of the regulators and Engineers Canada to promote a profession that is representative of society through promoting Indigenous peoples’ access to engineering.
- Engineering profession:
  - The update of these national positions provides clarity of the role of the engineering profession in helping tackle these issues.
- Others (public, government, higher education institutions, individual engineers, etc.):
  - These will provide the federal government with awareness on issues that Engineers Canada is currently working on that are linked to the federal governments mandate.

**Consultation**
- Our multi-disciplinary PAAC, provincial and territorial regulators (via the CEOs), and the Engineers Canada Board members were asked to review and provide comments and updates on these NPSs.
- There were no objections or concerns regarding the *engineering profession’s position* of the NPSs, and the background section was updated to reflect some of the comments and suggestions that were submitted by the consulted bodies.

**Next steps (if motion approved)**
- If the motion is 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.

**Appendices**
- Five updated NPSs are included in this agenda book for review and consideration. A version with visible changes and a version that is clean exists for the following statements:
  - Regulating the profession in federally regulated industries
  - Demand-side legislation
  - Infrastructure
  - Infrastructure on First Nations reserves and in remote communities
  - Climate change and extreme weather events
National Position Statements

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Regulating the Profession in Federally Regulated Industries

The engineering profession’s position:

- Self-regulation of the engineering profession protects and enhances public health, safety, welfare, and the environment for all Canadians.

- Where engineering work is being performed in Canada, that work must be done by an engineer licensed in the province or territory where the work is being completed.

- Engineering regulators set high professional and ethical standards, establish codes of conduct, and administer regulatory processes and standards of practice to ensure protection of the public.

- Engineers are held publicly accountable for their work, by the provincial and territorial regulators, as well as by their employers. These layers of accountability help keep Canadians safe.

- The activities of some federally regulated industries may be putting the safety of Canadians at risk by failing to comply with provincial acts and licensing requirements for engineering work.

- Engineers Canada calls on the federal government to recognize the need to enforce licensing requirements for engineers in federally regulated industries.

The issue

In Canada, the regulation of engineering takes place at the provincial and territorial level. All provinces and territories have laws and regulations covering engineering practice and they have engineering regulators that ensure those laws and regulations are followed. The twelve provincial and territorial engineering regulators:

- Establish and maintain professional and ethical standards.
- Hold engineers accountable for their work.
- Govern the conduct of the more than 295,000 members of the engineering profession in Canada.

Some federally regulated industries may be putting the safety of Canadians at risk by failing to require compliance with provincial acts and licensing requirements for engineering work. In many cases, engineers who work for the federal government are exempt from those laws, resulting in the federal government executing its privilege to use non-licensed individuals to do engineering work without consulting provincial and territorial jurisdictions. If these same individuals were not working for the federal government but were still responsible for engineering activities, they would be required to hold a licence with one of the twelve provincial and territorial engineering regulators.

The federal exemption raises questions about the federal government’s commitment to the public interest when it comes to engineering work. In return, this raises concerns about the practice of engineering and the qualifications of federal engineers involved in projects that affect public health, safety, welfare, and the environment for all Canadians.
How Engineers Canada has contributed

Provincial and territorial regulators across Canada work within legislation that provides comprehensive regulatory authority over all aspects of professional accountability, admissions, practice, complaints, discipline, enforcement, professional standards, continuing professional development, and mobility. These regulators have the authority to prevent unqualified or unlicensed individuals from practising engineering.

Provincial and territorial engineering regulators across Canada ensure that those individuals having the required education, engineering work experience, knowledge of relevant law, commitment to the code of ethics, and appropriate language competency can obtain a licence to practise independently. When it is deemed appropriate, engineering regulators in Canada issue licences and classes of licences that are subject to conditions such as specific scopes of practice.

Engineering regulators in each jurisdiction serve the public interest by making sure that only qualified individuals engage in professional engineering services by:

- Licensing qualified individuals based on their ability to practise professional engineering with competence and integrity.
- Administering registration practices that are timely, transparent, objective, impartial, and fair.
- Providing outreach and mentoring to prospective licensees to facilitate their understanding of the requirements for licensure and their entry into the profession.
- Acting against those who are practising engineering but who are not licensed professional engineers to do so.
- Administering continuing professional development programs that support licence holders to maintain their professional competencies.
- Implementing national labour mobility agreements to facilitate interprovincial mobility.
- Facilitating foreign qualification recognition through international agreements and other activities.
- Working together with governments and allied organizations to foster new ideas and improvements to the regulation of the practice of engineering.

The issue

The public interest is protected by the twelve provincial and territorial engineering regulators who:

- Establish and maintain professional and ethical standards.
- Hold engineering professionals accountable for their work.
- Govern the conduct of 295,000 members of the engineering profession in Canada.

Professional engineers are required to be licensed in each province or territory in which they practise.

How Engineers Canada has contributed

Engineers Canada is working with provincial and territorial engineering regulators to build a framework for engineering regulation to harmonize requirements and practices in admissions, licensing, practice review, and discipline and enforcement procedures to:
Ensure only qualified individuals are permitted to practise engineering in Canada.

Make it easier for applicants to understand what information must be submitted through the development of specific criteria.

Allow assessors to make objective decisions on whether an applicant has met the requirement.

Provincial and territorial engineering regulators across Canada ensure that those individuals having the required education, engineering work experience, knowledge of relevant law, commitment to the code of ethics, and appropriate language competency can obtain a licence to practise independently.

When it is deemed appropriate, engineering regulators in Canada issue licences and classes of licences that are subject to conditions such as specific scopes of practice.

Provincial and territorial engineering regulators across Canada work within legislation that provides comprehensive regulatory authority over all aspects of professional accountability, admissions, practice, complaints, discipline, enforcement, professional standards, continuing professional development, and mobility. These regulators have the authority to prevent unqualified or unlicensed individuals from practising engineering.

Engineering regulators have exemplary processes to welcome applicants, assess credentials, and provide pathways to licensure for:

- New graduates: those who are ready to enter their engineer-in-training period.
- International engineering graduates: the engineering profession has been a leader among all professions in recognizing the qualifications of professionals from abroad.
- Licence-holders transferring between Canadian jurisdictions: the engineering regulators have been leaders in the implementation of the Agreement on Internal Trade.1
- Individuals with non-standard engineering work experience and technical education, such as a degree in engineering technology.

Recommendations to the federal government

The federal government must recognize:

- Require that federally regulated industries use professional engineers to conduct engineering work.
- Clarify and enforce regulations, rules, guidelines, and standards that call for qualified, accountable persons to perform work that protects the public when safety management and regulatory compliance is delegated to federally regulated industries.
- Recognize and respect the jurisdiction of the provincial and territorial engineering regulators and acknowledge that provincial and territorial governments have delegated the authority to regulate the engineering profession to the regulators.
- Promote, within its jurisdiction, the use of licenced professionals in all aspects requiring such a credential and accountability evidence.

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Provincial and territorial regulators consistently strive to ensure that their admissions and licensure practices are timely, transparent, objective, impartial, and fair. They also set high professional and ethical standards, establish codes of conduct, and administer regulatory processes of practice to ensure protection of the Canadian public. It is important for the federal government to continue to recognize and support the self‑regulation of the engineering profession in Canada.

**How Engineers Canada will contribute**

Engineers Canada will continue to advocate that federal employees responsible for engineering activities be licensed by the province or territory in which they are practising. This will ensure that these individuals are accountable to the public as federal employees, and that these individuals hold paramount the safety, health, and welfare of the public and the protection of the environment.
Demand-side legislation

The engineering profession’s position:

- 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 a professional engineer.
- 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.
- When professional engineering work is being done in Canada, that work must be done by an engineer licensed in the province or territory where the work is being completed.
- Engineers Canada calls on the federal government to recognize the need to enforce licensing requirements for engineers in federally regulated industries.
- The activities of some federally regulated industries may be putting the safety of Canadians at risk by failing to comply with provincial acts and licensing requirements for engineering work.
- Engineers are held publicly accountable for their work, by the provincial and territorial regulators, as well as by their employers. These layers of accountability help to keep Canadians safe.

The issue

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. In some cases, certain federally regulated industries may be putting the safety of Canadians at risk by failing to require compliance with provincial acts and licensing requirements for engineering work.

For example, although the involvement of engineers is often sought in the development—and implementation of legislation and regulations governing infrastructure, transportation, resource development, and manufacturing—is crucial for the protection of public safety, there are other areas where the need for the involvement of engineers is less apparent, but no less critical, such as research, technology, and innovation.

How Engineers Canada has contributed

Engineers Canada is working with key federal departments (including Innovation, Science and Economic Development Canada and Transport Canada) to ensure that the value and benefit of having professional engineers involved in federally regulated industries is recognized by Canadians.

Engineers Canada also believes in the importance of demand-side legislation—legislation or regulations that require the certification of projects and works by an engineer. Engineers Canada participates in public consultations on legislation 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. Because of these efforts, Engineers Canada, with our members, have proposed changes to existing legislation. For example, Engineers Canada and Professional Engineers of Ontario proposed changes to the Section 11 of the
Railway Safety Act\(^2\) 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.”

On June 1, 2018, the Government of Canada announced that as part of the Investing in Canada plan, new major infrastructure projects seeking federal funding will be required to undertake an assessment of how their projects will contribute to or reduce carbon pollution, and to consider climate change risks in the location, design, and planned operation of a project. Infrastructure Canada listed professional engineers as one of the qualified party to provide an attestation that the climate change resilience assessment was carried out using a methodology that is in accordance with ISO 31000 Risk Management standard. 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 must recognize and respect the jurisdiction of the provincial and territorial regulators and acknowledge that provincial and territorial governments have delegated the authority to regulate the engineering profession to their regulators. The federal government must:

The federal government should:

- Ensure that any legislation or regulations that refer to engineering work require the involvement of a professional engineer, in accordance with provincial and territorial engineering acts.
- Use demand-side legislation to drive the need for ensuring that engineering work is performed by individuals who are licensed to do so, thereby encouraging compliance with professional regulatory legislation.
- Clarify and enforce regulations, rules, guidelines, and standards that call for qualified, accountable persons to perform work that protects the public when safety management and regulatory compliance is delegated to federally regulated industries.

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 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 government agenda, legislative initiatives, and proposed regulations to bring recommendations on demand-side legislation to the attention of government.

Work with engineers in the public service to promote the value of appropriate professional involvement in important projects across the country.

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.
Infrastructure

The engineering profession’s position:

- Sound and reliable core public and private infrastructure ensures public safety, continuing services, and supports economic prosperity. 

Owners-from-all

- All levels of government must ensure that predictable funding is available for designing and constructing safe and resilient core public infrastructure with an assured level of proper maintenance over the full life cycle of these assets.

- Engineers have the technical expertise as well as the project management and cost management skills to deliver safe and sustainable infrastructure that serves the public interest.

- Continuing improvements to infrastructure design codes and standards should include the development of maintenance standards to ensure the safety and integrity of infrastructure designs.

The issue

Well-designed, properly built, continually maintained, and efficient, reliable infrastructure is critical to public safety, quality of life, and a competitive economy.

Much of Canada’s core public and private infrastructure needs significant investment now and in the future to ensure its sustainability for its complete life and service cycle, which can range from 25 to 100 years. According to the Federation of Canadian Municipalities’ 2016 Canadian Infrastructure Report Card – Informing the Future, one third of Canada’s municipal infrastructure is in fair, poor, or very poor condition, increasing the risk of service disruption. This can impede competitiveness, economic development, and business investment, and can threaten public safety.

Building new infrastructure or rehabilitating existing infrastructure across Canada without considering climate change and extreme weather events has the potential to cause service disruptions and premature failures in the future, thus negatively impacting public safety, increasing business and social disruptions, and increasing costs to government, public, and business sectors.

The requirements for core public infrastructure are massive and require proper planning and oversight across their lifetime to ensure taxpayer value for the dollars spent. New programs for infrastructure must reflect an open, transparent, and competitive bidding process coupled with a fair, impartial evaluation process that is accountable. Infrastructure investments should be procured in stages over several years to provide predictable and sustainable funding levels. This will work to take advantage of learnings from previous stages as well as technical and cost innovations.

Recommendations to the federal government

Engineers Canada welcomes the increased investments in public infrastructure that the federal government has made since 2007. In the 2016 budget, the federal government announced the largest new has approved funding for thousands of infrastructure investment projects across Canada. By 2028, the Investing in Canadian history. This includes an investment Canada Plan is expected to almost $125 billion over the next decade, reaching an additional $9.5 billion by year ten.

This consists of providing new, dedicated funding to provinces, territories, split evenly between investments in new programs and municipalities for:

- public transit infrastructure
- social infrastructure, including affordable housing and seniors’ facilities, early learning and child care, and cultural and recreational infrastructure
- greener infrastructure, including local and wastewater facilities, climate resilient infrastructure, and clean energy

funding for existing federal initiatives. While these types of infrastructure will contribute substantially towards improving our economy and improving Canadians’ quality of life, programs to distribute funding should be based on merit, asset management principles and best practices that consider the service life of the infrastructure to provide effective and reliable service.

Tools such as the Public Infrastructure Engineering Vulnerable Committee (PIEVC) protocol need to be a condition. Climate vulnerability assessments on public infrastructure need to be a consideration for funding approvals, accepting environmental impact assessments, and approving designs for infrastructure projects involving new construction, rehabilitation, repurposing, maintaining, and decommissioning existing infrastructure. This will ensure public safety and health, decrease the direct and indirect cost of extreme weather events on infrastructure, and strengthen individual and business productivity to the benefit of all Canadians.

Evaluation criteria for project selection should be clear, transparent, and consistent. The criteria should incorporate compliance with best asset management practices. In addition, the federal government should provide flexibility in the timing of expenditures to enable proper procurement and responsible project management to ensure funds are spent wisely and effectively.

The federal government must implement a five to ten-year program to develop core public infrastructure maintenance standards and guidelines that would complement design codes, standards, and guidelines. Such instruments would provide infrastructure owners, engineers, asset managers, and other professionals with tools and guidance to properly maintain infrastructure over its complete service life. Following this guidance would ensure the infrastructure does not fall into deficit with increased risk of service disruption and costly repairs from events like extreme weather.

The federal government should work with other levels of government and stakeholders to ensure that Canadians have safe and reliable core public infrastructure that provides the basic services of water, sanitation, power, communications, and transportation.

How Engineers Canada will contribute

Engineers Canada will continue to collaborate with practitioners, government officials, and decision-makers to educate them on the value and benefits of long-term sustained investments in climate-resilient core public infrastructure and funding for proper infrastructure maintenance to ensure safe and reliable service and protection of public health, safety, and the environment.
Engineers Canada will secure engineering experts as needed to help policy and decision-makers to propose, develop, and implement appropriate policies, procedures, and processes for long-term solutions to improve public safety, reliability, and the value of public infrastructure. This includes supporting governments in their ongoing development and modernization of infrastructure codes, standards, and other instruments. This would include new infrastructure maintenance standards.

Engineers Canada will collaborate with other infrastructure stakeholders to provide consistent messaging on the need to inform and educate Canada’s engineers on the impacts and risks of extreme weather and our changing climate on infrastructure design, operations, and maintenance through the application of the PIEVC Protocol climate vulnerability assessments and practice guidance.

Engineers Canada will collaborate with other infrastructure stakeholders to provide consistent messaging on the need for, and benefits of, safe and sustainable public infrastructure.
Infrastructure on First Nations reserves and in remote communities

The engineering profession’s position

- Essential infrastructure on First Nations Reserves and in remote communities, such as safe drinking water, reliable electricity, wastewater treatment, waste management, information technology, schools, and housing, must be properly funded, built to industry standards, and resilient.
- Roads
- Transportation, policing, community centres, education, and healthcare are government services that should be provided to Indigenous peoples who live on and off reserve in remote communities.
- Engineers are well positioned to assist Indigenous communities in building capacity to achieve the communities’ desired outcomes for the planning, design, construction, and operation of essential infrastructure.
- The engineering profession seeks to honour traditional and cultural practices while working with the Indigenous peoples of Canada.

The issue

Public infrastructure across Canada must meet the needs of individuals, families, and communities. Reliable infrastructure is the foundation for improving the quality of on-reserve life and economic outcomes of individuals living in northern, remote, and rural communities across Canada. The 2016 federal budget announced approximately $4 billion of funding to improve First Nations community infrastructure. The 2017 federal budget proposed to invest an additional $4 billion over 10 years through the Investing in Canada Plan, starting in 2018–2019, to build and improve housing, water treatment systems, health facilities, and other community infrastructure in partnership with Indigenous peoples. The lack of adequate and resilient infrastructure is in the order of several billions. While these much-needed investments are welcomed, there is still a lot of work that needs to be done to strengthen vulnerable infrastructure on reserves and in remote communities.

A significant percentage of existing public infrastructure in Canada is considered ageing, inadequate, and in poor condition. Increasing the negative effects on the social and economic fabric of

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First Nations reserve communities. According to the Canadian Council for Public-Private Partnerships, the infrastructure deficit on First Nations communities is estimated to be $30 billion.\(^7\)

Infrastructure deficits in Canada are not exclusive to Indigenous communities, but the level of inadequate public infrastructure in northern, remote, and on-reserve communities compared to off-reserve communities and municipalities is evident. For example, two-thirds of all First Nations communities in Canada have been under at least one long-term drinking water advisory at some time in the last decade, a CBC News investigation revealed.\(^4\) Four hundred out of 618 First Nations communities in this country had a related water-boil advisory between 2004 and 2014. The Neskantaga First Nation in Ontario, for example, has had a boil water advisory for the past 20 years.\(^9\) Moreover, advisories on public systems on reserve before March 2021, more work still needs to be done.\(^10\) In addition, existing infrastructure on First Nations reserves remains vulnerable to extreme weather events as its effects have not been completely considered in the planning, construction, or operation phases of most infrastructure elements.

**How Engineers Canada has contributed**

Engineers Canada has helped First Nations communities across the country, including the Unama'ki in Cape Breton, Nova Scotia, the Moose Cree reserve in northern Ontario, and the Mohawk Akwesasne Reserve in eastern Ontario, to apply the Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol to assess the climate vulnerability of their water and wastewater systems. The Protocol was also used to assess housing, school, and supporting infrastructure for the Oneida reserve in southern Ontario. This work includes the development of a First Nations toolkit that incorporates climate risk assessments as part of Indigenous community asset management plans.

Engineers Canada has helped with capacity building for Indigenous engineers and communities across the country through PIEVC training and risk assessment workshops. Engineering faculties across the country have also collaborated with Indigenous communities to help build capacity and improve existing public infrastructure.

In June 2018, the Government of Canada announced that as part of the Investing in Canada Plan, new major infrastructure projects that are seeking federal funding will be required to undertake an assessment of how their projects will contribute to or reduce carbon pollution, and to consider climate change risks.

in the location, design, and planned operation of an infrastructure project. Infrastructure Canada will also require that a professional engineer, registered professional planner, or appropriately specialized biologist or hydrologist provide an attestation that the climate change resilience assessment was carried out using a methodology that is in accordance with ISO 31000 Risk Management standard. The Climate Lens\textsuperscript{11} also lists the Engineers Canada-founded PIEVC Protocol as one of these methodologies for climate change resilience that is consistent with ISO 31000.

**Recommendations to the federal government**

Infrastructure that many First Nations reserves lack is usually provided in most to other types of communities by municipalities or provinces and territories. However, under the Indian Act, this is the federal government's responsibility on First Nations reserves.

The government must continue to fulfill its promise to of Budget 2016 and lift the two percent cap on funding for First Nations programs and work to establish a new fiscal relationship that gives First Nations communities sufficient, predictable, and sustained funding. This funding must focus largely on resilient and sustainable public infrastructure. This will help the government deliver on another promise—to have clean drinking water on reserves within five years of forming government.

On top of funding infrastructure projects, the government must help build the capacity for Indigenous communities to develop their capacity through training in asset management practices to assess, plan, and manage their infrastructure. The government should also work to fulfill its promise to eliminate long-term drinking water advisories on public systems on reserve by 2021.

The government should support updates to First Nations infrastructure asset inventories, which would include modernizing the data management and support systems as well as a review of the asset categories and descriptions to ensure they are up-to-date, and that they describe age, current condition, and climate vulnerability. This information is vital for effective asset management and consideration of climate risks. These efforts, combined with committed funding and training in asset management, will enhance the capacity of communities to meet their needs for climate resilient infrastructure.

**How Engineers Canada will contribute**

The engineering profession is ready to share its unbiased expertise with the federal government through advice, review, collaboration, and mentorship. Professional engineers in Canada have the technical expertise to support the development and implementation of sustainable and economically feasible plans that create sustainable infrastructure.

Engineers Canada supports programs that increase the representation of Indigenous peoples in post-secondary engineering programs, with the intent to increase the number of Indigenous engineers. Engineers Canada is dedicated to working with the federal government and directly with Indigenous peoples and their communities to build upon the necessary knowledge, skills, and experiences to assess infrastructure climate vulnerabilities and risks.

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Climate Change and extreme weather events

The engineering profession’s position:

- Engineers accept the overwhelming scientific evidence that the world’s climate is changing and there is a strong urgency to adapt to this change while still encouraging mitigation efforts to slow the rate and magnitude of climate change.

- In serving the public interest, engineers are uniquely qualified and positioned to ensure that Canada’s infrastructure is designed and maintained to resist and recover from the impacts of extreme weather and long-term changes to our climate.

- Bodies responsible for engineering codes, standards, and work practices must consider climate change when reviewing, establishing, or updating codes, standards, and work practices. Improved climate science understanding and modelling future projections is crucial to reducing uncertainties associated with future scenarios.

- Federal and provincial governments must consult and collaborate with the engineering profession on policies relating to climate change and extreme weather events for the benefit of the public that they both serve.

- Education and professional development must provide engineers with the required information, skills, and techniques to properly design and adapt to the future challenges posed by climate change.

The issue:

Extreme weather and rapid changes to Canada’s climate present a profound risk to both public safety and the reliability of Canada’s infrastructure. The disruption and cost to Canada’s economy when infrastructure is damaged or destroyed by extreme weather events is growing and becoming more frequent across Canada. Much of Canada’s existing infrastructure is vulnerable. In 2018, insured damage for extreme weather events in Canada reached $1.9 billion. In mid-April of 2018, an ice storm that affected southern Ontario had resulted in more than $190 million in insured damage. In December of the same year, storms in British Columbia caused $37 million in insured damage.

Considering the limited funding to address massive infrastructure needs, it is more important than ever for engineers, proponents, and policy makers to understand the full economic and environmental costs of infrastructure project decisions—and not just impacts relating to material choice or from initial construction, but the impacts of choices across the entire life cycle of a project.

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13 Ibid.

14 Ibid.
Much of Canada's existing infrastructure is vulnerable. The damages from the Fort McMurray wildfire in 2016 illustrated the impacts in terms of cost and potential loss of life. The expense of this event is estimated to reach $9 billion.15

Infrastructure owners need the capacity and knowledge to assess the climate vulnerability of new and existing infrastructure to plan and manage potential impacts. Such analysis not only helps identify issues and solutions in order to adapt the infrastructure to the impact of climate change, but also provides evidence to improve existing policies and procedures as well as develop new ones to address emerging needs, issues, and concerns.

How Engineers Canada has contributed

Engineering is on the front line in the provision of infrastructure to society. For this reason, engineers have a significant role to play in addressing climate change issues and incorporating them into engineering practice in Canada.

Since 2005, Engineers Canada has partnered with the provincial and territorial engineering regulators and other organizations to engage engineers with scientists, policy planners, industry leaders, and government decision-makers to discuss how to adapt public infrastructure to climate change.

These actions have been executed through a national action plan on climate change, in collaboration with the engineering regulators, for the benefit of engineers and governments that has been ongoing since 2003.

Between August 2005 and June 2012, Engineers Canada, with funding from Natural Resources Canada and in collaboration with partners from all levels of government and other sectors, formed the Public Infrastructure Engineering Vulnerability Committee (PIEVC). Now an operational committee of Engineers Canada, the committee continues to examine, from an engineering point of view, the threats to Canada's infrastructure arising from rapid climate changes.

Between 2007 and 2012, the Public Infrastructure Engineering Vulnerability Committee (PIEVC). The committee developed and validated the PIEVC Protocol, a tool to be used for vulnerability assessments of infrastructure systems located in small communities and large urban centres, in Canada’s North and most recently in First Nations communities. Since 2008, the protocol has been used in over 50 infrastructure assessments in Canada. It has attracted international interest, with two projects completed in Honduras and Costa Rica. PIEVC has also attracted interest from the United Nations and international development banks that finance infrastructure projects. Reports from these studies are available at www.pievc.ca. Over 1,000 engineers have taken introductory training on the Protocol since 2009. More than 20 consulting firms in Canada have completed assessments using the tool.

The experiences and outcomes from these assessments have enabled the profession to engage with stakeholders on climate-related infrastructure policy and procurement. Engineers Canada was also an active contributor to the federal government’s Pan-Canadian Framework for Climate Change that wasPan-
Canadian Framework on Clean Growth and Climate Change published in the fall of 2016, which aims to meet the country’s targets to reduce emissions, transition to a low-carbon economy, and build resilience to a changing climate.

In June 2018, the Government of Canada announced that as part of the Investing in Canada Plan, new major infrastructure projects that are seeking federal funding will be required to undertake an assessment of how their projects will contribute to or reduce carbon pollution, and to consider climate change risks in the location, design, and planned operation of an infrastructure project. Infrastructure Canada requires that a professional engineer, registered professional planner, or appropriately specialized biologist or hydrologist provide an attestation that the climate change resilience assessment was carried out using a methodology that is in accordance with ISO 31000 Risk Management standard. The Climate Lens also lists the Engineers Canada’s Pievc Protocol as one of these methodologies for assessing climate change resilience that is consistent with ISO 31000.

In 2018, Engineers Canada has developed a national practice guideline on the principles of climate adaptation and mitigation that provides guiding principles for engineers to consider climate change in their professional practice.

Recommendations for the federal government

While the Government of Canada’s continuing support of Engineers Canada’s Pievc Protocol and the engineering community have the necessary knowledge that is imperative to dealing with the issue of climate change and extreme weather events. The profession has been engaged in this issue for over 15 years with a good first step, focus on infrastructure climate vulnerability and risk assessment, as well as proposing adaptation policies, strategies, and professional practices to improve resilience.

It is Engineers Canada’s view that climate resiliency across the entire lifetime of infrastructure is the goal, and adaptation is the key strategy to achieve it. Therefore, all adaptation actions should lead to an outcome of improved resiliency for all communities be it municipalities, cities, towns, or reserves.

Engineers Canada encourages the federal government to continue to require climate vulnerability processes and risk assessments as a condition for funding approvals of infrastructure projects. This condition could be applied across other federal departments who own and operate existing infrastructure or design and construct new infrastructure. We are encouraged to see that Transport Canada and Public Works and Procurement Services are conducting assessments as part of their long-term asset management planning. We encourage other federal departments owning infrastructure to do the same.

This principle of climate risk assessment should be extended to become a component of incorporated as part of the policy framework for environmental impact assessments and assessment of infrastructure projects. Similarly, as policy required for approval of designs for infrastructure projects involving rehabilitation, re-purposing of all existing infrastructure, as well as new construction.

The federal government will benefit greatly by working with the engineering profession on this significant public policy issue through a range of collaborative efforts that include:

- Consultation and collaboration with the engineering profession on policies relating to climate change policy. The profession can provide independent, unbiased, and credible technical expertise and advice on climate adaptation and mitigation that governments can use consider to develop sound evidence-based policies and implement technically feasible and cost-effective strategies.

- Continuing to fund climate research to assess impacts and adaptation, and inform the development and updating of codes, standards, and other instruments thereby increasing the confidence of climate design data used by engineers.

- Promoting awareness of climate change impacts, adaptation measures, and GHG reductions with communities and industry. This includes working with provincial and territorial governments to understand, assess, and adapt to changes in Canada’s climate, including the unique challenges in Canada’s North.

- Promoting the need for up-to-date, consistent, and accurate national climate data. Consistent national climate data will ensure that accurate climate projections are made, enabling effective planning for both present and future projects.

- Promoting information-sharing between engineers, scientists, and other key stakeholders regarding current best adaptive practices and regional climate data sets.

- Maintaining and improving a national network of climate and watershed data collection systems, including partnerships with other levels of government in accordance with national standards and quality control measures. This includes supporting established regional hubs including OURANOS and the Pacific Climate Impacts Consortium that provide more localized products and services as well as newer developing hubs such as the Prairie Adaptation Research Collaborative at the University of Regina.

- Continuing efforts to improve the accuracy and resolution of climate change projection models and support provincial efforts to develop up-to-date, reliable regional climate data sets and trend analyses. This includes supporting demonstration projects and validating best practices to become standard practices.

- Continuing to support the Natural Resources Canada Climate Adaptation Platform, which continues to provide an excellent forum for collaboration, communication, and capacity-building between all stakeholders.

- Experienced engineering professionals are available to provide technical expertise and impartial advice on a voluntary basis to governments on adaptation and mitigation requirements, and to advise on and help develop sound policies, appropriate processes, and technically feasible implementation strategies. Continuing to support the Canada Centre for Climate Services (CCCS)
in its provision of climate data, information products, and advisory services to Canadians. Engineers require scientifically defensible climate information and future projections that are supported by the legal authority of the federal government through CCCS.

How Engineers Canada will contribute:
Engineers must adapt their professional practice to consider the impacts of extreme weather and the changing climate. As professionals develop strategies to reach public safety, reliability, sustainability, and resilience goals, it is vital that engineers adopt methodologies that use a life-cycle perspective to evaluate impacts and use that knowledge to generate strategic paths moving forward.

They should acquire the requisite knowledge, skills, and experience, and consult with other professionals including climate specialists to properly address this issue in each project.

Engineers Canada will continue to work with engineering regulators to raise awareness and educate engineers on the needs and methods when considering extreme weather and longer-term climate change in engineering decisions. This includes developing guidance to embed climate adaptation and mitigation principles in professional practice and an engineers’ standard of practice.

Engineers Canada can advise the federal government on the research, information, and funding needed to safeguard infrastructure and communities that are vulnerable to the effects of climate change.

Engineers Canada will continue to work actively:
- Work with all infrastructure owners to improve knowledge engineering regulators to raise awareness on the needs and build their capacity to assess risks arising from methods to consider extreme weather and changing longer-term climate. We will continue change in engineering decisions. This includes developing guidance to embed climate adaptation and mitigation principles in professional practice and through our regulators, an engineers’ standard of practice.
- Continue to take a leadership role in assuring that codes, standards, and practices embody principles that promote a low carbon, clean environment and a sustainable economy through low carbon, climate resilient infrastructure and the services it provides. Engineers Canada will continue to provide
- Provide advice and leadership to our regulators by developing and maintaining national practice guidelines, such as the National Guideline for Principles of Climate Change Adaptation and Mitigation for Professional Engineers. This effort includes the delivery of professional development to engineers in partnership with our regulators on national guidelines, as well as promoting tools such as the PIEVC Protocol and information needed for engineers to adapt their designs, improve operations and maintenance of public infrastructure, and improve measures to mitigate emissions that contribute to climate change.¹⁷

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# National Position Statements

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Regulating the Profession in Federally Regulated Industries

The engineering profession’s position

- Regulation of the engineering profession protects and enhances public health, safety, welfare, and the environment for all Canadians.

- Where engineering work is being performed in Canada, that work must be done by an engineer licensed in the province or territory where the work is being completed.

- Engineering regulators set high professional and ethical standards, establish codes of conduct, and administer regulatory processes and standards of practice to ensure protection of the public.

- Engineers are held publicly accountable for their work, by the provincial and territorial regulators, as well as by their employers. These layers of accountability help keep Canadians safe.

- The activities of some federally regulated industries may be putting the safety of Canadians at risk by failing to comply with provincial acts and licensing requirements for engineering work.

- Engineers Canada calls on the federal government to recognize the need to enforce licensing requirements for engineers in federally regulated industries.

The issue

In Canada, the regulation of engineering takes place at the provincial and territorial level. All provinces and territories have laws and regulations covering engineering practice and they have engineering regulators that ensure those laws and regulations are followed. The twelve provincial and territorial engineering regulators:

- Establish and maintain professional and ethical standards.
- Hold engineers accountable for their work.
- Govern the conduct of the more than 295,000 members of the engineering profession in Canada.

Some federally regulated industries may be putting the safety of Canadians at risk by failing to require compliance with provincial acts and licensing requirements for engineering work. In many cases, engineers who work for the federal government are exempt from those laws, resulting in the federal government executing its privilege to use non-licensed individuals to do engineering work without consulting provincial and territorial jurisdictions. If these same individuals were not working for the federal government but were still responsible for engineering activities, they would be required to hold a licence with one of the twelve provincial and territorial engineering regulators.

The federal exemption raises questions about the federal government’s commitment to the public interest when it comes to engineering work. In return, this raises concerns about the practice of engineering and the qualifications of federal engineers involved in projects that affect public health, safety, welfare, and the environment for all Canadians.
How Engineers Canada has contributed

Provincial and territorial regulators across Canada work within legislation that provides comprehensive regulatory authority over all aspects of professional accountability, admissions, practice, complaints, discipline, enforcement, professional standards, continuing professional development, and mobility. These regulators have the authority to prevent unqualified or unlicensed individuals from practising engineering.

Provincial and territorial engineering regulators across Canada ensure that those individuals having the required education, engineering work experience, knowledge of relevant law, commitment to the code of ethics, and appropriate language competency can obtain a licence to practise independently. When it is deemed appropriate, engineering regulators in Canada issue licences and classes of licences that are subject to conditions such as specific scopes of practice.

Engineering regulators in each jurisdiction serve the public interest by making sure that only qualified individuals engage in engineering by:

- Licensing qualified individuals based on their ability to practise engineering with competence and integrity.
- Administering registration practices that are timely, transparent, objective, impartial, and fair.
- Providing outreach and mentoring to prospective licensees to facilitate their understanding of the requirements for licensure and their entry into the profession.
- Acting against those who are practising engineering but who are not licensed to do so.
- Offering continuing professional development that supports licence holders to maintain their professional competencies.
- Implementing national labour mobility agreements to facilitate interprovincial mobility.
- Facilitating foreign qualification recognition through international agreements and other activities.
- Working together with governments and allied organizations to foster new ideas and improvements to the regulation of the practice of engineering.

Engineering regulators have exemplary processes to welcome applicants, assess credentials, and provide pathways to licensure for:

- New graduates: those who are ready to enter their engineer-in-training period.
- International engineering graduates: the engineering profession has been a leader among all professions in recognizing the qualifications of professionals from abroad.
- Licence-holders transferring between Canadian jurisdictions: the engineering regulators have been leaders in the implementation of the Agreement on Internal Trade.¹
- Individuals with non-standard engineering work experience and technical education, such as a degree in engineering technology.

Recommendations to the federal government

The federal government should:

- Require that federally regulated industries use professional engineers to conduct engineering work.
- Clarify and enforce regulations, rules, guidelines, and standards that call for qualified, accountable persons to perform work that protects the public when safety management and regulatory compliance is delegated to federally regulated industries.
- Recognize and respect the jurisdiction of the provincial and territorial engineering regulators and acknowledge that provincial and territorial governments have delegated the authority to regulate the engineering profession to the regulators.
- Promote, within its jurisdiction, the use of licenced professionals in all aspects requiring such a credential and accountability evidence.

Provincial and territorial regulators consistently strive to ensure that their admissions and licensure practices are timely, transparent, objective, impartial, and fair. They also set high professional and ethical standards, establish codes of conduct, and administer regulatory processes of practice to ensure protection of the Canadian public. It is important that the federal government continue to recognize and support the regulation of the engineering profession in Canada.

How Engineers Canada will contribute

Engineers Canada will continue to advocate that federal employees responsible for engineering activities be licensed by the province or territory in which they are practising. This will ensure that these individuals are accountable to the public as federal employees, and that these individuals hold paramount the safety, health, and welfare of the public and the protection of the environment.
Demand-side legislation

The engineering profession’s position:

- 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 a professional engineer.

- 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 issue

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 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, technology, and innovation.

How Engineers Canada has contributed

Engineers Canada knows the importance of actively engaging with the federal government regarding public consultations on legislation 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. Because of these efforts, Engineers Canada, with our members, have proposed changes to existing legislation. For example, Engineers Canada and Professional Engineers of Ontario proposed changes to the Section 11 of the Railway Safety Act 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.”

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.

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Recommendations to the federal government
The federal government should:
- Ensure that any legislation or regulations that refer to engineering work require the involvement of a professional engineer, in accordance with provincial and territorial engineering acts.
- Adopt a government wide policy to ensure that engineering work be performed by individuals who are licensed to do so, thereby encouraging compliance with professional regulatory legislation.

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 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 government agenda, legislative initiatives, and proposed regulations 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.
Infrastructure

The engineering profession’s position

• Sound and reliable core public and private infrastructure ensures public safety, continuing services, and supports economic prosperity.

• All levels of government must ensure that predictable funding is available for designing and constructing safe and resilient core public infrastructure with an assured level of proper maintenance over the full life cycle of these assets.

• Engineers have the technical expertise as well as the project management and cost management skills to deliver safe and sustainable infrastructure that serves the public interest.

• Continuing improvements to infrastructure design codes and standards should include the development of maintenance standards to ensure the safety and integrity of infrastructure designs.

The issue

Well-designed, properly built, continually maintained, and reliable infrastructure is critical to public safety, quality of life, and a competitive economy.

Much of Canada’s core public and private infrastructure requires significant investment now and, in the future, to ensure its sustainability for its complete life and service cycle, which can range from 25 to 100 years. According to the Federation of Canadian Municipalities’ 2016 Canadian Infrastructure Report Card – Informing the Future, one third of Canada's municipal infrastructure is in fair, poor, or very poor condition, increasing the risk of service disruption. This can impede competitiveness, economic development, and business investment, and can threaten public safety.

Building new infrastructure or rehabilitating existing infrastructure across Canada without considering climate change and extreme weather events has the potential to cause service disruptions and premature failures in the future, thus negatively impacting public safety, increasing business and social disruptions, and increasing costs to government, public, and business sectors.

The requirements for core public infrastructure are massive and require proper planning and oversight across their lifetime to ensure taxpayer value for the dollars spent. New programs for infrastructure must reflect an open, transparent, and competitive bidding process coupled with a fair, impartial evaluation process that is accountable. Infrastructure investments should be procured in stages over several years to provide predictable and sustainable funding levels. This will take advantage of learnings from previous stages as well as technical and cost innovations.

Recommendations to the federal government

Engineers Canada welcomes the increased investments in public infrastructure that the federal government has made since 2007. As of August 2018, the federal government has approved funding for thousands of infrastructure projects across Canada. By 2028, the Investing in Canada Plan is expected to have provided more than $180 billion, split evenly between investments in new programs and funding for existing federal initiatives. While these types of infrastructure will contribute substantially towards improving our economy and improving Canadians’ quality of life, programs to distribute funding should be based on asset management principles and best practices that consider the service life of the infrastructure to provide effective and reliable service.

Climate vulnerability assessments on public infrastructure need to be a consideration for funding approvals, accepting environmental impact assessments, and approving designs for infrastructure projects involving new construction, rehabilitation, re-purposing, maintaining, and decommissioning existing infrastructure. This will ensure public safety and health, decrease the direct and indirect cost of extreme weather events on infrastructure, and strengthen individual and business productivity to the benefit of all Canadians.

Evaluation criteria for project selection should be clear, transparent, and consistent. The criteria should incorporate compliance with best asset management practices. In addition, the federal government should provide flexibility in the timing of expenditures to enable proper procurement and responsible project management to ensure funds are spent wisely and effectively.

The federal government should implement a five to ten-year program to develop core public infrastructure maintenance standards and guidelines that would complement design codes, standards, and guidelines. Such instruments would provide infrastructure owners, engineers, asset managers, and other professionals with tools and guidance to properly maintain infrastructure over its complete service life. Following this guidance would ensure the infrastructure does not fall into deficit with increased risk of service disruption and costly repairs from events like extreme weather.

The federal government should work with other levels of government and stakeholders to ensure that Canadians have safe and reliable core public infrastructure that provides the basic services of water, sanitation, power, communications, and transportation.

How Engineers Canada will contribute

Engineers Canada will continue to collaborate with practitioners, government officials, and decision-makers on the value and benefits of long-term sustained investments in climate-resilient core public infrastructure and funding for proper infrastructure maintenance to ensure safe and reliable service and protection of public health, safety, and the environment.

Engineers Canada will secure engineering experts as needed to help policy and decision-makers to propose, develop, and implement appropriate policies, procedures, and processes for long-term solutions to improve public safety, reliability, and the value of public infrastructure. This includes supporting governments in their ongoing development and modernization of infrastructure codes, standards, and other instruments. This would include new infrastructure maintenance standards.

Engineers Canada will collaborate with other infrastructure stakeholders to provide consistent messaging on the need to inform and educate Canada’s engineers on the impacts and risks of extreme weather and our changing climate on infrastructure design, operations, and maintenance through the application of climate vulnerability assessments and practice guidance.

Engineers Canada will collaborate with other infrastructure stakeholders to provide consistent messaging on the need for, and benefits of, safe and sustainable public infrastructure.
Infrastructure on First Nations reserves and in remote communities

The engineering profession’s position

• Essential infrastructure on First Nations reserves and in remote communities, such as safe drinking water, reliable electricity, wastewater treatment, waste management, information technology, schools, and housing, must be properly funded, built to industry standards, and resilient.

• Transportation, policing, community centres, education, and healthcare are government services that should be provided to Indigenous peoples who live on and in remote communities.

• Engineers are well positioned to assist Indigenous communities in building capacity to achieve the communities’ desired outcomes for the planning, design, construction, and operation of essential infrastructure elements.

• The engineering profession seeks to honour traditional and cultural practices while working with the Indigenous peoples of Canada.

The issue

Public infrastructure across Canada must meet the needs of individuals, families, and communities. Reliable infrastructure is the foundation for improving the quality of life and economic outcomes of individuals living in northern, remote, and rural communities across Canada. The 2016 federal budget announced approximately $4 billion of funding to improve First Nations community infrastructure.4 The 2017 federal budget proposed to invest an additional $4 billion over 10 years through the Investing in Canada Plan5, starting in 2018–2019, to build and improve housing, water treatment systems, health facilities, and other community infrastructure in partnership with Indigenous peoples. While these much-needed investments are welcomed, there is still a lot of work that needs to be done to strengthen vulnerable infrastructure on reserves and in remote communities.

A significant percentage of existing public infrastructure is considered ageing, inadequate, and in poor condition, further increasing the negative effects on the social and economic fabric of First Nations reserve communities. According to the Canadian Council for Public-Private Partnerships, the infrastructure deficit on First Nations communities is estimated to be $30 billion.6

Infrastructure deficits in Canada are not exclusive to Indigenous communities, but the level of inadequate public infrastructure in northern, remote, and on-reserve communities compared to off-reserve

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communities and municipalities is evident. Although we applaud the Government of Canada's commitment to end all long-term drinking water advisories on public systems on reserve before March 2021, more work still needs to be done.\(^7\) In addition, existing infrastructure on First Nations reserves remains vulnerable to extreme weather events as its effects have not been completely considered in the planning, construction, or operation phases of most infrastructure elements.

**How Engineers Canada has contributed**

Engineers Canada has helped First Nations communities across the country, including the Unama'ki in Cape Breton, Nova Scotia, the Moose Cree reserve in northern Ontario, and the Mohawk Akwesasne reserve in eastern Ontario, to apply the Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol to assess the climate vulnerability of their water and wastewater systems. The Protocol was also used to assess housing, school, and supporting infrastructure for the Oneida reserve in southern Ontario. This work includes the development of a First Nations toolkit that incorporates climate risk assessments as part of Indigenous community asset management plans.

Engineers Canada has helped with capacity building for Indigenous engineers and communities across the country through PIEVC training and risk assessment workshops. Engineering faculties across the country have also collaborated with Indigenous communities to help build capacity and improve existing public infrastructure.

In June 2018, the Government of Canada announced that as part of the Investing in Canada Plan, new major infrastructure projects that are seeking federal funding will be required to undertake an assessment of how their projects will contribute to or reduce carbon pollution, and to consider climate change risks in the location, design, and planned operation of an infrastructure project. Infrastructure Canada will also require that a professional engineer, registered professional planner, or appropriately specialized biologist or hydrologist provide an attestation that the climate change resilience assessment was carried out using a methodology that is in accordance with ISO 31000 Risk Management standard. The Climate Lens\(^8\) also lists the Engineers Canada-founded PIEVC Protocol as one of these methodologies for climate change resilience that is consistent with ISO 31000.

**Recommendations to the federal government**

Infrastructure that many First Nations reserves lack is usually provided to other types of communities by municipalities or provinces and territories. However, under the Indian Act, this is the federal government's responsibility on First Nations reserves.

The government should continue to fulfill its promise of Budget 2016 and lift the two per cent cap on funding for First Nations programs and work to establish a new fiscal relationship that gives First Nations communities sufficient, predictable, and sustained funding. This funding must focus largely on resilient and sustainable public infrastructure.


On top of funding infrastructure projects, the government must help Indigenous communities develop their capacity through training in asset management practices to assess, plan, and manage their infrastructure. The government should also work to fulfill its promise to eliminate long-term drinking water advisories on public systems on reserve by 2021.

The government should support updates to First Nations infrastructure asset inventories, which would include modernizing the data management and support systems as well as a review of the asset categories and descriptions to ensure they are up-to-date, and that they describe age, current condition, and climate vulnerability. This information is vital for effective asset management and consideration of climate risks. These efforts, combined with committed funding and training in asset management, will enhance the capacity of communities to meet their needs for climate resilient infrastructure.

**How Engineers Canada will contribute**

The engineering profession is ready to share its unbiased expertise with the federal government through advice, review, collaboration, and mentorship. Engineers in Canada have the technical expertise to support the development and implementation of sustainable and economically feasible plans that create sustainable infrastructure.

Engineers Canada supports programs that increase the representation of Indigenous peoples in post-secondary engineering programs, with the intent to increase the number of Indigenous engineers. Engineers Canada is dedicated to working with the federal government and directly with Indigenous peoples and their communities to build upon the necessary knowledge, skills, and experiences to assess infrastructure climate vulnerabilities and risks.
Climate change and extreme weather events

The engineering profession’s position

• There is overwhelming scientific evidence that the world’s climate is changing and there is a strong urgency to adapt to this change while still encouraging mitigation efforts to slow the rate and magnitude of climate change.

• In serving the public interest, engineers are uniquely qualified and positioned to ensure that Canada’s infrastructure is designed and maintained to resist and recover from the impacts of extreme weather and long-term changes to our climate.

• Bodies responsible for engineering codes, standards, and work practices must consider climate change when reviewing, establishing, or updating codes, standards, and work practices. Improved climate science understanding and modelling future projections is crucial to reducing uncertainties associated with future scenarios.

• It is imperative that federal and provincial governments consult and collaborate with the engineering profession on policies relating to climate change and extreme weather events for the benefit of the public that they both serve.

• Education and professional development must provide engineers with the required information, skills, and techniques to properly design and adapt to the future challenges posed by climate change.

The issue

Extreme weather and rapid changes to Canada’s climate present a profound risk to both public safety and the reliability of Canada’s infrastructure. The disruption and cost to Canada’s economy when infrastructure is damaged or destroyed by extreme weather events is growing and becoming more frequent across Canada. Much of Canada’s existing infrastructure is vulnerable. In 2018, insured damage for extreme weather events in Canada reached $1.9 billion. In mid-April of 2018, an ice storm that affected southern Ontario had resulted in more than $190 million in insured damage. In December of the same year, storms in British Columbia caused $37 million in insured damage.

Considering the limited funding to address massive infrastructure needs, it is more important than ever for engineers, proponents, and policy makers to understand the full economic and environmental costs of infrastructure project decisions—and not just impacts relating to material choice or from initial construction, but the impacts of choices across the entire life cycle of a project.

Infrastructure owners need the capacity and knowledge to assess the climate vulnerability of new and existing infrastructure to plan and manage potential extreme weather impacts. Such analysis not only

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10 Ibid.
11 Ibid.
helps identify issues and solutions in order to adapt the infrastructure to the impact of climate change, but also provides evidence to improve existing policies and procedures as well as develop new ones to address emerging needs, issues, and concerns.

**How Engineers Canada has contributed**

Engineering is on the front line in the provision of infrastructure to society. For this reason, engineers have a significant role to play in addressing climate change issues and incorporating them into engineering practice in Canada.

Since 2005, Engineers Canada has partnered with the provincial and territorial engineering regulators and other organizations to engage engineers with scientists, policy planners, industry leaders, and government decision-makers to discuss how to adapt public infrastructure to climate change.

Between August 2005 and June 2012, Engineers Canada, with funding from Natural Resources Canada and in collaboration with partners from all levels of government and other sectors, formed the Public Infrastructure Engineering Vulnerability Committee (PIEVC). The committee developed and validated the PIEVC Protocol, a tool to be used for vulnerability assessments of infrastructure systems located in small communities and large urban centres, in Canada’s North and most recently in First Nations communities. The experiences and outcomes from these assessments have enabled the profession to engage with stakeholders on climate-related infrastructure policy and procurement. Engineers Canada was also an active contributor to the federal government’s Pan-Canadian Framework on Clean Growth and Climate Change published in the fall of 2016, which aims to meet the country’s targets to reduce emissions, transition to a low-carbon economy, and build resilience to a changing climate.

In June 2018, the Government of Canada announced that as part of the Investing in Canada Plan, new major infrastructure projects that are seeking federal funding will be required to undertake an assessment of how their projects will contribute to or reduce carbon pollution, and to consider climate change risks in the location, design, and planned operation of an infrastructure project. Infrastructure Canada requires that a professional engineer, registered professional planner, or appropriately specialized biologist or hydrologist provide an attestation that the climate change resilience assessment was carried out using a methodology that is in accordance with ISO 31000 Risk Management standard. The Climate Lens also lists the Engineers Canada-founded PIEVC Protocol as one of these methodologies for climate change resilience that is consistent with ISO 31000.

In 2018 Engineers Canada published a national practice guideline on the *Principles of Climate Change Adaptation and Mitigation for Professional Engineers*[^12] that provides guiding principles for engineers to consider climate change in their professional practice.

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Recommendations for the federal government

Engineers and the engineering community have the necessary knowledge that is imperative to dealing with the issue of climate change and extreme weather events. The profession has been engaged in this issue for over 15 years with a focus on infrastructure climate vulnerability and risk assessment, as well as proposing adaptation policies, strategies, and professional practices to improve resilience.

It is Engineers Canada’s view that climate resiliency across the entire lifetime of infrastructure is the goal, and adaptation is the key strategy to achieve it. Therefore, all adaptation actions should lead to an outcome of improved resiliency for all communities be it municipalities, cities, towns, or reserves.

Engineers Canada encourages the federal government to continue to require climate vulnerability processes and risk assessments to be a condition for funding approvals of infrastructure projects. This policy should be applied across other federal departments who own and operate existing infrastructure or design and construct new infrastructure. We are encouraged to see that Transport Canada and Public Works and Procurement Services are conducting assessments as part of their long-term asset management planning. We encourage other federal departments owning infrastructure to do the same.

Climate risk assessment should be incorporated as part of the policy framework for environmental impact assessment of infrastructure projects. Similarly, as policy required for approval of designs for infrastructure projects involving rehabilitation, re-purposing of all existing infrastructure, as well as new construction.

The federal government will benefit greatly on this significant public policy issue through a range of efforts that include:

- Consultation and collaboration with the engineering profession on policies relating to climate change. The profession can provide independent, unbiased, and credible expertise and advice on climate adaptation and mitigation that governments can consider to develop sound evidence-based policies.
- Continuing to fund climate research to assess impacts and adaptation, and inform the development and updating of codes, standards, and other instruments thereby increasing the confidence of climate design data used by engineers.
- Promoting awareness of climate change impacts, adaptation measures, and GHG reductions with communities and industry. This includes working with provincial and territorial governments to understand, assess, and adapt to changes in Canada’s climate, including the unique challenges in Canada’s North.
- Promoting information-sharing between engineers, scientists, and other key stakeholders regarding current best adaptive practices and regional climate data sets.
- Maintaining and improving a national network of climate and watershed data collection systems, including partnerships with other levels of government in accordance with national standards and quality control measures. This includes supporting established regional hubs including OURANOS and the Pacific Climate Impacts Consortium that provide more localized products and services as well as newer developing hubs such as the Prairie Adaptation Research Collaborative at the University of Regina.
• Continuing efforts to improve the accuracy and resolution of climate change projection models and support provincial efforts to develop up-to-date, reliable regional climate data sets and trend analyses. This includes supporting demonstration projects and validating best practices to become standard practices.

• Continuing to support the Natural Resources Canada Climate Adaptation Platform, which continues to provide an excellent forum for collaboration, communication, and capacity-building between all stakeholders.

• Continuing to support the Canada Centre for Climate Services (CCCS) in its provision of climate data, information products, and advisory services to Canadians. Engineers require scientifically defensible climate information and future projections that are supported by the legal authority of the federal government through CCCS.

How Engineers Canada will contribute

Engineers must adapt their professional practice to consider the impacts of extreme weather and Canada’s changing climate. As professionals develop strategies to reach public safety, reliability, sustainability, and resilience goals, it is vital that engineers adopt methodologies that use a life-cycle perspective to evaluate impacts and use that knowledge to generate strategic paths moving forward. They should acquire the requisite knowledge, skills, and experience, and consult with other professionals including climate specialists to properly address this issue in each project.

Engineers Canada can advise the federal government on the research, information, and funding needed to safeguard infrastructure and communities that are vulnerable to the effects of climate change.

Engineers Canada will continue to actively:

• Work with engineering regulators to raise awareness on the needs and methods to consider extreme weather and longer-term climate change in engineering decisions. This includes developing guidance to embed climate adaptation and mitigation principles in professional practice and through our regulators, an engineers’ standard of practice.

• Continue to take a leadership role in assuring that codes, standards, and practices embody principles that promote a low carbon, clean environment and a sustainable economy through low carbon, climate resilient infrastructure and the services it provides.

• Provide advice and leadership to our regulators by developing and maintaining national practice guidelines, such as the National Guideline for Principles of Climate Change Adaptation and Mitigation for Professional Engineers. This effort includes the delivery of professional development to engineers in partnership with our regulators on national guidelines, as well as promoting tools such as the PIEVC Protocol and information needed for engineers to adapt their designs, improve operations and maintenance of public infrastructure, and improve measures to mitigate emissions that contribute to climate change.13

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BRIEFING NOTE: For decision

### Annual performance report

**Purpose:** To review the “2019 Annual performance report”, agree on the status of all items, and approve the circulation of the report to the Members for information at their May 23, 2020 meeting.

**Link to the strategic plan**
- Board Responsibility #1: Hold itself, its directors, and its direct reports accountable
- Board responsibility #3: Provide ongoing and appropriate strategic direction

**Motion(s) to consider:** THAT the Engineers Canada Board approve the “2019 Annual performance report” (as amended) for circulation to the Members for information at their Annual Meeting of Members on May 23, 2020.

**Vote required to pass:** Simple majority

**Transparency:** Open session

**Prepared by:** Luigi Benedicenti, Chair CEAB
- Lisa Doig, Chair Finance, Audit, and Risk Committee
- Jeff Holm, Chair Governance Committee
- Ron Leblanc, Chair CEQB
- David Lynch, Chair Human Resources Committee
- Gerard McDonald, CEO

**Presented by:** Gerard McDonald, CEO

### Issue definition
- The Board must report to the Member-regulators, annually, the progress that has been made towards achievement of the strategic plan.
- In addition, the Board must demonstrate to the Members that they are providing appropriate governance of the organization and are achieving their own Board responsibilities.
- The “2019 Annual performance report” would form the basis of any adjustments to the 2019-2021 Strategic plan, if necessary.

### Proposed action/recommendation
- Review and approve the report, with amendments if necessary, so that it can be provided to the Members for information at the Annual Meeting of Members on May 23, 2020.

### Other options considered:
- No other options were considered. This is the accountability and reporting plan that the Board put into place in 2018 as an outcome of the Governance, Strategic Planning, and Consultation project.

### Risks
- Failing to report progress and demonstrate accountability to the Members could lead to a loss of trust.
Financial implications

- None

Benefits

- The development, review, and concurrence of an annual report provides an opportunity for the Board to reflect on their performance and that of the organization.
- The annual performance report demonstrates to the engineering regulators that the Board members understand who they are accountable to, and that they are committed to their role of delivering value to the regulators.

Consultation

- The report was developed by staff and volunteers, with the Governance, FAR, and HR committees reviewing their results to ensure accuracy.
- The primary consultation is the Board meeting, where directors will agree on what level of achievement to report to the engineering regulators.

Next steps (if motion approved)

- Based on input from the Board, staff will finalize (and amend, if necessary) the “2019 Annual performance report”, and ensure that it is distributed to the regulators (CEOs and presidents), with encouragement to provide it to their councils, and subsequently included in the agenda materials for the May 23, 2020 Annual Meeting of Members.
- The introductory letter will be drafted by staff and approved by the president based on the final content.

Appendices

- 2019 Annual performance report
2019 Engineers Canada
Annual performance report
Introduction

This is where the introductory letter goes, once the report is approved by the Board.

Sincerely,

David Lynch, PhD, FCAE, FEC, P.Eng.
President
Engineers Canada

“Pull quote goes here.
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## Summary of 2019 performance

<table>
<thead>
<tr>
<th>Strategic priorities</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>2019</th>
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<tbody>
<tr>
<td>SP1 Accreditation Improvement Program</td>
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<td>SP2 Accountability in Accreditation</td>
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<td>SP3 Recruitment, Retention, and Professional Development of Women in the Profession</td>
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<td>SP4 Competency Based Assessment Project</td>
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<tr>
<td><strong>Operational imperatives</strong></td>
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<td>OP1 Accreditation</td>
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<td>OP2 Regulator relationships</td>
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<td>OP3 Services and tools (QB and NMDB)</td>
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<td>OP4 National programs (affinity, devolving PIEVC and IRP)</td>
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<td>OP5 Advocating to the federal government</td>
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<td>OP6 Monitoring, researching, and advising</td>
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<td>OP7 International mobility</td>
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<td>OP8 Promotion and outreach</td>
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<td>OP9 Diversity</td>
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<td>OP10 Protecting official marks</td>
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<tr>
<td><strong>Board responsibilities</strong></td>
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<tr>
<td>BR1 Hold itself, its directors, and its direct reports accountable</td>
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<tr>
<td>BR2 Sustain a process to engage with regulators through regular communication that facilitates input, evaluation, and feedback</td>
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<td>BR3 Provide ongoing and appropriate strategic direction</td>
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<td>BR4 Ensure the development and periodic review of Board policies</td>
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<tr>
<td>BR5 Ensure the CEO maintains and acts on a robust and effective risk management system which reflects the Board’s risk tolerance level and directs Board-approved mitigation strategies</td>
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<tr>
<td>BR6 Provide orientation of new directors, and continuing development of directors and others who work closely with the Board</td>
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</tbody>
</table>
## Legend

<table>
<thead>
<tr>
<th>Scoring</th>
<th>Assessment of the progress of the annual objectives:</th>
<th>Assessment of the probability of achieving the intended objectives by the end of the strategic plan period:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>On track</td>
<td>100% (i.e. the outcomes have been achieved)</td>
</tr>
<tr>
<td>Yellow</td>
<td>Some disruption; close monitoring required</td>
<td>90 to 99%</td>
</tr>
<tr>
<td>Red</td>
<td>Obstacles being encountered that put progress and success at risk; corrective action required</td>
<td>70 to 89%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Less than 70%</td>
</tr>
</tbody>
</table>
Strategic priorities

SP1: Accreditation Improvement Program

Accountability: CEO
Weight: 4 (highest)

Intended outcomes:
• Improved performance of the accreditation management process.
• Improved performance of the Enrolment and Degrees Awarded Survey process.
• Improved stakeholder consultation process associated with accreditation management and Enrolment and Degrees Awarded Survey processes.
• Improved user experience(s) associated with accreditation management and the Enrolment and Degrees Awarded Survey. This includes both operationally and for those stakeholders directly involved in these processes.
• Improved reliability of accreditation and the Enrolment and Degrees Awarded Survey.
• Users are enabled to more quickly adopt changes to the accreditation management and Enrolment and Degrees Awarded Survey Processes.
• Sustainable methods are established to ensure ongoing operational continual improvement.

Probability of achieving the intended outcomes by December 2021
• A preliminary evaluation indicates that all outcomes related to the Enrolment and Degrees Awarded survey have been achieved, except for users’ adoption of change. Ongoing evaluation will ensure this is sustained.
• We remain on track to achieve all remaining outcomes by the end of the strategic plan period.

2019 objectives:
• Release of the new data management system for the collection of enrolment and degrees awarded data.
• Training for all stakeholders involved.

Achievement of the objectives
• The 2019 objectives were fully met with Tandem used for the Enrolment and Degrees Awarded Survey, and training on this use being provided to all HEIs via live webinars in Q2 2019, and training materials and on-demand support.
SP2 Accountability in accreditation

Accountability: CEAB
Weight: 4 (highest)

**Intended outcomes:**
- The criteria established by the Accreditation Board are data-driven, reflect the requirements of the regulators, and support excellence in engineering education.
- Engineering regulators are provided with annual, data-driven reporting that demonstrates that the accreditation system measures transparency and effectiveness, enabling clarity of conversations around potential improvements and changes.
- Higher education institutions:
  - Understand and recognize that the Accreditation Board is taking them through a structured, rigorous, and fair process.
  - Feel supported in their efforts to incorporate educational innovation into their programs in a timely manner.
- Report greater knowledge and predictability of accreditation visits and decisions, and satisfaction with the Accreditation Board’s collaborative approach to change.

**Probability of achieving the intended outcomes by December 2021**
- The assessment process being developed will provide the basis for greater understanding and accountability as expressed in the outcomes. We believe that the probably of achieving these outcomes by December 2021 remains high.

**2019 objectives:**
- Assessment process to assess transparency and effectiveness of accreditation system to be designed collaboratively with stakeholders.
- A new permanent committee to be struck that is responsible for this assessment process and the continual improvement of the accreditation system.
- The issue of the required number of AUs is addressed to the satisfaction of all stakeholders, based on data and collaboration with all stakeholders.

**Achievement of the objectives**
- Although the permanent committee was struck, the resulting assessment process is not yet complete. It will be completed in Q1 2020 with first measurements that year, and findings reported in 2021.
- The issue of the required number of AUs is also carried over into 2020 to give the Engineering Deans of Canada more time to respond to the consultation. The issue will be resolved by May 2020.
### SP3 Recruitment, retention, and professional development of women in the profession

*Accountability: CEO*

*Weight: 4 (highest)*

#### Intended outcomes:
- A national program with high visibility among targeted stakeholders.
- Engineering regulators are provided the opportunity to fully participate in the program.
- Barriers to entry and retention for women in the profession are understood and mechanisms for addressing them are developed to be applied both nationally and with regulators in their provinces and territories.

#### Probability of achieving the intended outcomes by December 2021
- High

#### 2019 Objectives:
- Publish baseline data—out to 2030—that accurately models our current understanding of the percentage of women on the engineering pathway.
- Establish new goals for each aspect of the expanded mandate.
- Develop new action plans for each aspect of the expanded mandate.
- Face-to-face consultations in Q1 with regulators, 30 by 30 Champions, and Equitable Participation in Engineering (EPiE) Committee members, including consultations on action plans.
- Obtain support of the regulators for the new program.
- Early wins achieved on SP3 by May 2019. Provide semi-annual progress reports at the September and May Board meetings thereafter.

#### Achievement of the objectives
- All of the 2019 objectives were achieved.
SP4 Competency Based Assessment project

Accountability: CEO
Weight: 2

<table>
<thead>
<tr>
<th>Intended outcomes:</th>
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</thead>
<tbody>
<tr>
<td>• The administrative burden of processing applicants is reduced for regulator staff.</td>
</tr>
<tr>
<td>• Applicants have greater clarity regarding the engineering work experience requirement and how to report their work experience.</td>
</tr>
<tr>
<td>• Applicants and validators report greater confidence in their own assessments.</td>
</tr>
<tr>
<td>• Application processing resources are refocused on only those applicants requiring additional assistance.</td>
</tr>
</tbody>
</table>

Probability of achieving the intended outcomes by December 2021

• The project is on track, with the scope and budget having been recently expanded to include the Canadian competencies.
• With an expected project completion date of December 2020, we anticipate that the probably of achieving the intended outcome by December 2021 is high.

2019 Objectives:

• The online competency-based assessment system is available in English.
  o Operational agreements finalized and signed by users
  o Psychometrician initiates inter-association testing
  o EIT, change, and communication plan templates are finalized
  o Application programming interfaces (APIs) are developed
  o Learning management system (LMS) is developed
  o Educational informational transfer is implemented
• French capability is enabled

Achievement of the objectives

• The project is on track. The online competency-based assessment system is available online in English, with three jurisdictions participating: BC, Saskatchewan, and PEI.
• New Brunswick, Manitoba, and Newfoundland & Labrador have also all committed to joining in 2020; work on their APIs will not be completed until 2020.
• Due to the expansion of the project scope to include the Canadian competencies, and the lack of any francophone participants at this time, some objectives were not met in 2019. This includes French capability and the conclusion of all APIs for the new regulators.
Operational imperatives

OP1 Accreditation
Accountability: CEAB
Weight: 3

Intended outcomes:
• Ensure the Canadian accreditation process is credible in the eyes of regulators, higher education institutions, and engineering students to effectively and efficiently accredit Canadian undergraduate engineering programs.

Probability of achieving the intended outcomes by December 2021
• The probability of achieving this outcome is high.
• Higher education institutions (HEIs), continue to request accreditation visits and the regulators continue to accept graduates of accredited programs as having satisfied the academic requirements for licensure. It is therefore concluded that the accreditation process has been and will continue to maintain its credibility.

2019 Objectives:
• Conduct accreditation business:
  • Visits to 2 higher education institutions (HEIs) from the 2018/2019 cycle and 11 HEIs from the 2019/2020 cycle (the accreditation visit cycle runs from September to February)
  • 78 program decisions rendered for Canadian undergraduate engineering programs (67 visits + 2 notice of significant change + 8 reports)
• Develop and maintain accreditation policies
  • Provide clarification and improvement of the current A/M/U rating scale
  • Develop a course information sheet prototype to link graduate attributes (GAs) to accreditation units (AUs)
  • Redefine the general visitor mandate
  • Develop a complaints policy
  • Modify the interpretive statement on GAs (Appendix 9 of the Accreditation Criteria and Procedures)
  • Propose changes to Criterion 3.1.5 regarding documented assessment tools used to obtain data on student learning with respect to all twelve graduate attributes
  • Finalize changes to the interpretive statement on licensure expectations and requirements
  • Develop guidance regarding unforeseen events and AUs
  • Respond to NCDEAS request regarding international exchanges and CEAB accreditation requirements
  • Suggested interview questions for HEI Registrar (or equivalent)
  • Review and update visit questionnaire and rubrics to provide a great focus on the graduate attribute / continual improvement process
  • Complete the work of the AU Task Force
• Implement new policy 6.9 terms of reference for the CEAB, including a new process to appoint members to the CEAB Executive Committee

Achievement of the objectives
• The 2019 objectives are mostly completed: all visits and decision were completed, and the new Board policy 6.9 regarding the CEAB was implemented.
• In regards to the accreditation policies, ten out of twelve are completed. The remaining objectives are in still progress, including:
  o Develop a course information sheet prototype to link graduate attributes (GAs) to accreditation units (AUs)
  o Respond to NCDEAS request regarding international exchanges and CEAB accreditation requirements
**OP2 Regulator relationships**

*Accountability: CEO*

*Weight: 3*

<table>
<thead>
<tr>
<th>Intended outcomes:</th>
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<tbody>
<tr>
<td>• Sustain a high level of trust, engagement, and commitment between and among the regulators.</td>
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<tr>
<td>• Facilitate the information exchange necessary to support a well-informed federation of regulators that is able to act proactively in the best interests of engineering regulation in Canada.</td>
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<tr>
<td>• Support and facilitate the work of the CEO Group and the National Officials Groups in the regulation of the profession.</td>
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<tr>
<td>• Make available training materials and content on ethics and professionalism for regulators’ use in the development of their continuing professional development programs.</td>
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</tbody>
</table>

**Probability of achieving the intended outcomes by December 2021**

• All outcomes are currently being achieved, and it is expected that they will be sustained up to and beyond December 2021.

**2019 Objectives:**

• Enable networking opportunities for the regulator presidents within the context of regular Board meetings.
  - Deliver orientation through “First Timers Lunch” at February and May Board meetings
  - Organize meetings at February, May, and September Board meetings

• Develop an orientation program about Engineers Canada for the regulator presidents, and other Engineers Canada and regulator staff and volunteers.

• Support the CEO Group and the National Officials Groups and their initiatives.

**Achievement of the objectives**

• Objectives regarding the support of the officials groups (including CEOs) and the presidents were fully met.

• The objective to develop an orientation program was deferred due to lack of human resources staff in 2019, and will be completed in 2020.
OP3 Services and tools for regulation, practice, and mobility

Accountability: CEO

Weight: 3

Intended outcomes:

- Enable the assessment of engineering qualifications:
  - Through the Qualifications Board, develop work products that enable the assessment of engineering qualifications (i.e., white papers, model guides, and guidelines) and maintain examination syllabi, ensuring that both are timely and serve the needs of the regulators and applicants for licensure.
  - Provide research into emerging areas of practice in support of regulators in their decision making.
- Foster excellence in engineering practice and regulation:
  - Through the Qualifications Board, develop work products that foster excellence in engineering practice and regulation (i.e., white papers, model guides, and guidelines), ensuring that they are timely and serve the needs of the regulators and of practicing engineers.
  - Recognize and support the exemplary accomplishments of engineers by administering effective fellowship and scholarship programs.
- Facilitate mobility of practitioners within Canada:
  - Maintain, within the constraints and preferences of the regulators, a shared database of engineers in Canada for the purposes of processing inter-provincial/territorial applications.
  - Through the Qualifications Board, develop work products that facilitate mobility (i.e., white papers, model guides, and guidelines), are timely, and serve the needs of the regulators.

Probability of achieving the intended outcomes by December 2021

- All outcomes are currently being achieved, and it is expected that they will be sustained up to and beyond December 2021.

2019 Objectives:

- CEQB: Maintain examination syllabi
  - Develop new syllabus for aerospace / aeronautical engineering (for CEQB approval in January 2020)
  - Review syllabi for basic studies, biomedical, software, and structural (all approved by January 2020)
- CEQB: Develop and maintain guidelines and white papers
  - New guideline on use of syllabi (for Board approval in Fall 2019)
  - New guideline on enabling entrepreneurship (for Board approval in 2020)
  - New white paper on environmental engineering (for Board approval in Fall 2019)
  - Review guideline on assessment of engr work experience, risk management (Board approval Spring 2020)
- CEO: Maintain the National Membership Database for those regulators who choose to update and/or access it.
  - Feasibility of other means of sharing information is explored
  - Decisions and planning for any changes to how information is shared are completed

Achievement of the objectives

- All objectives were met:
  - A decision was made to renew the National Membership Database and project planning begins in 2020.
  - The CEQB guidelines were produced and approved in 2019, as noted, or are on track for 2020 approval.
  - The new and revised syllabi are all on track for 2020 approval.
OP4 National programs

Accountability: CEO

Weight: 1 (lowest)

Intended outcomes:

- Within the period of this plan, divest itself of programs which the regulators consider are not within its mandate or which may be best served by other organizations. This includes the Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol and Infrastructure Resilience Professional (IRP) training. In the future, it would be desirable if PIEVC and IRP were available to Canadian engineers but provided by more appropriate organizations.
- Affirm that Engineers Canada is not a designation body and stop offering IRP designations.
- Maintain sustainability in affinity products and services.

Probability of achieving the intended outcomes by December 2021

- High

2019 Objectives:

PIEVC: develop and execute a plan to divest EC of the responsibility to maintain the PIEVC Protocol by 2021.

- Q1 - Develop request for expressions of interest.
- Q2 - Issue request for expressions of interest. Receive expressions of interest and select proponents for RFP.
- Q3 - Complete and issue RFP to selected proponents. Receive proposals from proponents.
- Q4 - Evaluate proposals and recommend a preferred interested party for CEO approval.

IRP: Develop and execute a plan to divest EC of the responsibility to offer Infrastructure Resilience Program (IRP) training by 2021.

- Q1 - Identify interested parties who are willing and capable to offer IRP courses and designation. Develop RFP.
- Q2 - Issue the RFP to interested parties.
- Q3 - Receive and evaluate proposals and make a recommendation to the CEO.
- Q4 - Conduct negotiations and finalize the details of the transfer agreement.

Affinity programs

- Q2 - Semi-annual reporting with GWL, Manulife, and TD Insurance. Results of reporting meetings shared.
- Q3 - Transparency mechanisms implemented using tactics to meet the needs of individual regulators.
- Q4 - Semi-annual reporting with GWL, Manulife, and TD Insurance. Results of reporting meetings shared.

Achievement of the objectives

- All of the 2019 objectives were achieved, except:
  - IRP: Negotiations will begin in Q1 2020 instead of Q4 2019.
  - Affinity programs: The outcome listed above for the affinity programs is “Maintain sustainability in affinity products and services”. Work related to APEGA leaving the TD insurance home and auto program in Q3 has resulted in increased focus on the maintenance of sustainability in affinity products and services, and has delayed other work.

For these reasons, OP4 has been categorized as yellow.
**OP5: Advocating to the federal government**

*Accountability: CEO*

*Weight: 1 (lowest)*

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<th>Intended outcomes:</th>
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<tbody>
<tr>
<td>• Advocate to the federal government to promote and advance the enactment of new demand-side legislation and prevent the erosion of existing federal legislation.</td>
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<tr>
<td>• Engage and educate parliamentarians, senior federal officials, and all relevant agencies within the federal government to gain their confidence and develop their awareness of:</td>
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<tr>
<td>• The responsibility of engineers to safeguard the public.</td>
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<tr>
<td>• The benefits of engineering input into federal policy.</td>
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<tr>
<td>• The positions and concerns of the engineering profession.</td>
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<tr>
<td>• Inform regulators of Engineers Canada’s federal government advocacy activities and progress through a newly developed reporting mechanism.</td>
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</table>

**Probability of achieving the intended outcomes by December 2021**

*High*

<table>
<thead>
<tr>
<th>2019 Objectives:</th>
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<tbody>
<tr>
<td>• Q1 through Q4</td>
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<tr>
<td>• Face-to-face meetings with parliamentarians and public servants; providing information on federal government proposals, actions and policies; advocating for the role of engineers in the development of public policy; providing advice to regulators on policies affecting provincial regulation; providing updates in the newsletter.</td>
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<tr>
<td>• Q1</td>
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<tr>
<td>• Face-to-face consultation on the new sub-strategy.</td>
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<td>• Board approval of NPS on regulation of coastal, ocean, and related subsurface engineering.</td>
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<tr>
<td>• Q2</td>
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<tr>
<td>• Submission of draft analysis, rationale, and sub-strategy to regulators.</td>
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<tr>
<td>• Submit for Board approval two NPSs: “Artificial Intelligence Engineering Technology in Autonomous and Connected Vehicles” and “Indigenous People’s Access to Post-Secondary Engineering Education”.</td>
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<tr>
<td>• Public Affairs Advisory Committee (PAAC) decide on upcoming NPS topics for next fiscal year. Research and environmental scan on new issues for NPSs.</td>
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<tr>
<td>• Q3</td>
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<tr>
<td>• Submission of final analysis, rationale, and sub-strategy to the Board on federal government advocacy.</td>
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<td>• Create list of existing NPSs needing updates.</td>
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<td>• Submit pre-budget submission to federal government. Request to be added to the House of Commons Standing Committee on Finance for possible testimony.</td>
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<tr>
<td>• Q4</td>
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<tr>
<td>• Implement advocacy strategy outcomes as needed.</td>
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<td>• Circulate draft NPSs to PAAC members.</td>
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**Achievement of the objectives**

*All of the 2019 objectives were achieved.*
### OP6 Regulatory research, monitoring, and advising

**Accountability:** CEO  
**Weight:** 2

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<tr>
<th>Intended outcomes:</th>
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<tr>
<td>• Establish a lean and effective research-based monitoring and reporting capability that provides regulators with foresight and early warning of potential changes and advances in the Canadian regulatory environment and the engineering profession. The information provided will help inform regulatory decision making.</td>
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**Probability of achieving the intended outcomes by December 2021**

- It is expected that these outcomes will be achieved after the new sub-strategy has been launched in 2020.

<table>
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<th>2019 Objectives:</th>
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<tr>
<td>• Background work and workshop for a new research sub-strategy that will provide research that informs and advises the regulators on changes and advances that impact the Canadian regulatory environment and the engineering profession, including a possible task force on the future of the engineering profession.</td>
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<tr>
<td>• Conduct research into emerging areas of practice and advise regulators on the impacts.</td>
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<tr>
<td>• Conduct research and issue the <em>Enrolment and Degrees Awarded Report</em></td>
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**Achievement of the objectives**

- All 2019 objectives were achieved, and the proposed sub-strategy for this portfolio will be presented to the Board for approval in May 2020.
### OP7 International mobility

**Accountability: CEO and CEAB**  
**Weight: 1 (lowest)**

#### Intended outcomes:
- Provide regulators with a timely and accurate assessment of the risks and opportunities associated with mobility of work and practitioners internationally.
- Maintain international mobility agreements and mutual recognition agreements in accordance with regulator needs.
- Provide timely and accurate information to regulators on the impact of international trade agreements.
- Provide online information for internationally trained engineers that describes the process for becoming an engineer in Canada.
- Maintain current information on international institutions and degrees for use by the regulators.

#### Probability of achieving the intended outcomes by December 2021
- It is expected that all outcomes will be met once the international institutions and degrees database update project is completed in 2021, and after the new sub-strategy is approved in late 2020 and launched in 2021.
- The outcome regarding online information for internationally trained engineers is currently being achieved, and it is expected that this will be sustained up to and beyond December 2021.

#### 2019 Objectives:
- **CEAB:** Represent regulators’ interests with respect to international agreements and timely reporting to the Board on developments.  
  - Provide advice to Engineers Canada delegates to the Washington Accord meeting regarding votes on governance, admission of new members, review of signatories, and fulfilment of reporting obligations.
- **CEO:** Commence work on the new international mobility sub-strategy (to be submitted to the Board by September 2020) on how best to manage risks and opportunities associated with mobility of work and practitioners internationally.
  - Until the new strategy is approved, continue with existing activities:
    - Maintain the mobility registers
    - Attend the International Engineering Alliance meetings, and vote regarding governance and membership
    - Maintain mutual recognition agreements (MRAs).
    - Update Engineers Australia MRA
- **CEO:** Maintain the Roadmap to Engineering website.
- **CEO:** Maintain the International Institutions and Degrees Database (IIDD) while implementing the recommendations of the National Admissions Officials Group.
  - Complete a feasibility study regarding the IIDD’s continued use and improvement
  - Research institutions and add information to the IIDD
  - CEO: Maintain website content and respond to questions regarding foreign credential recognition and licensure

#### Achievement of the objectives
- All objectives were fully met in 2019 with the exception of the renewal of the Engineers Australia MRA. This was due to a change in staffing at Engineers Australia and a subsequent lack of follow-up on their end.
**OP8 Promotion and outreach**

*Accountability: CEO*

*Weight: 2*

## Intended outcomes:

- Leverage existing opportunities to foster recognition of the value and contribution of the profession without embarking on cost-prohibitive endeavours.
- Leverage partnerships and joint ventures that can spark interest in the next generation of engineering professionals without developing or wholly sustaining such programs internally.

## Probability of achieving the intended outcomes by December 2021

- High

### 2019 Objectives:

- Submit an analysis, rationale, and recommended strategies to the Board by February 2020 on how best to:
  - Foster recognition of the value and contribution of the profession to society.
  - Spark interest in the next generation of engineering professionals.
- Until the new strategy is approved, continue with existing activities including: FEC program; scholarships program; awards program; and current outreach programs including Canadian Federation of Engineering Students, Girl Guides, National Engineering Month; NSERC Science Odyssey; and DiscoverE, including the Global Marathon and Future City.
- Initiate and implement Scouts program.
- Conduct a review of the scholarships program and update and maintain it thereafter.
- Conduct a review of the current Engineers Canada Awards program and bring this information back to the Board for discussion.

### Achievement of the objectives

- All of the 2019 objectives were achieved in 2019 except for: initiate and implement Scouts program; and conduct a review of the scholarships program. The work regarding the Scouts program has begun and will be continuing into 2020. The review of the scholarships program is carrying over to 2020 and is on track for changes to be implemented with the 2020-2021 scholarship cycle. This was not deemed to be sufficiently significant to categorize OP8 as yellow.
OP9 Diversity and inclusion

Accountability: CEO
Weight: 2

Intended outcomes:
- Demonstrate progress towards diversity and inclusion targets through consistent effort and innovative, highly-leveraged programs that increase the number of women and Indigenous people entering, thriving, and remaining in the profession.

Probability of achieving the intended outcomes by December 2021
- High

2019 Objectives:

OP9 Sub-strategy
- Q1 - The EPIE Committee is consulted on OP9 sub-strategy.
- Q2 - The Indigenous Peoples' Participation in Engineering (IPPiE) working group is consulted on OP9 sub-strategy.
- Q3 - The OP9 sub-strategy is presented at the Fall Board meeting.
- Until the new sub-strategy is approved, continue with existing activities.

Truth and Reconciliation Commission (TRC): Actively monitor and advise regulators on the work of EGBC and EGMB with respect to the TRC report.
- Q1 to Q4 – Each quarter, consult with EGBC and APEGM on their work regarding the TRC.

EngScape: Maintain EngScape pending its evaluation in relation to sub-strategies development.
- Q2 - Review continued utility of EngScape and make appropriate recommendations.

National Membership Survey: Maintain up-to-date information for 30 by 30 as well as accurate reporting, charging dues, affinity programs, and other purposes.
- Q1 - Complete collection of 2018 membership data.
- Q2 - Data verification. Write website content. Develop 30 by 30 infographics (i.e. map and table).
- Q3 - Send report/website content to translation. Post on website. Share 30 by 30 infographic widely.
- Q4 - Improvements on survey form. Begin process of collecting 2019 data.

Achievement of the objectives
- All of the 2019 objectives were achieved.
### OP10 Protect official marks

**Accountability: CEO**  
**Weight: 1 (lowest)**

<table>
<thead>
<tr>
<th>Intended outcomes:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect the official marks from unauthorized or misleading use.</td>
<td></td>
</tr>
<tr>
<td>Ensure that federally-incorporated companies respect provincial and territorial engineering legislative requirements.</td>
<td></td>
</tr>
</tbody>
</table>

**Probability of achieving the intended outcomes by December 2021**

- High

**2019 Objectives:**

- Protect the official marks from unauthorized use, responding as necessary.
- Ensure Engineers Canada’s portfolio of trademarks is current and appropriate, as determined from time to time and based on projects and programs.
- Manage and administer the established process for the federal incorporation of companies wishing to use the official marks in their corporate name.

**Achievement of the objectives**

All objectives were met. In the period January 1, 2019 to December 31, 2019, Engineers Canada:

- Managed oversight of 6 trademark opposition proceedings (open, ongoing)
- Closed 6 trademark opposition files (3 abandoned, 3 settled)
- Commenced searches and investigations of potential marks for summary expungement (non-use), with 20 marks identified for potential s. 45 proceedings (s. 45 Notices for Summary Expungement to be issued in Q1 2020)
- Reviewed and evaluated Engineers Canada’s trademark enforcement strategy to ensure trademarks and official marks continue to be adequately used and protected
- Filed application with the Trademarks office for the 30 by 30 mark and logo
- Issued 44 letters of consent to applicants in response to requests to incorporate federally using the official marks in their corporate name
Board responsibilities

BR1 Hold itself, its directors, and its direct reports accountable

The Human Resources Committee shall:

• Establish and use competency profiles for directors and all committee chairs, as well as for the Board as a whole.
• Manage the CEO and committee chairs through the use of competency profiles and performance measurement against the achievement of the operational and strategic plans.
• Be responsible for performance management of the CEO

Intended outcomes:

• Codify a more structured means of measuring and understanding the progress-against-plan of the organization.
• Take action to address gaps, weaknesses, and failings in any part of the plan, as measured through national, transparent performance measures.
• This Board responsibility will be achieved when the Board is confident that it has an accurate and complete awareness of its own performance as well as that of its directors and committee chairs. With this information, the Board will act to recognize success and offer appropriate guidance when needed to achieve objectives.

Objectives:
From the June 2018 – June 2019 Compensation and Executive committees’ work plans:

• Establish and use competency profiles for all directors, committee chairs and for the Board as a whole
• Track, report and when necessary correct, performance against set objectives of the strategic plan and the annual operating plan
• Establish CEO objectives and assess CEO performance, including conducting interviews

From the June 2019 – June 2020 Human Resources committee’s work plan:

• Establish, administer and annually review competency profiles for the Board, individual directors, and chairs
• Develop and recommend annual objectives for the CEO to the Board
• Conduct regular CEO assessments, and make recommendations to the Board regarding CEO compensation

Annual achievements

The Human Resources Committee was formed in May 2019, taking on the responsibilities of the former Executive and Compensation committees. In the period January 1 2019 to December 31 2019, the committees:

• Obtained Board approval for the CEO’s performance for 2018, and objectives for 2019; conducted interviews regarding the CEO’s 2019 performance and reviewed his suggested objectives for 2020.
• Obtained Board approval for the competency and assessment policies and worked on processes to enable the annual reviews of directors, committee chairs, and the board as a whole. The first assessments will take place in 2020.
• In addition, the Board monitored performance against the strategic plan through quarterly reviews of the Board-approved performance report, covering all four strategic priorities and the ten operational imperatives.
### BR2 Sustain a process to engage with regulators through regular communication that facilitates input, evaluation, and feedback

**The President-elect shall:**
- Provide oversight and guidance to the Engineers Canada consultation process with regulators and other key stakeholders whose input is vital to the Board’s work.

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>Outcomes:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Intended outcomes:
- Regulators and all key stakeholders will appreciate and value the engagement process which shall be cost-effective and make efficient use of the time of all those asked to engage in Engineers Canada’s consultations.
- This Board responsibility will be fulfilled when the regulators and other key stakeholders are satisfied that their views and requirements are understood and considered before action is taken.

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>Outcomes:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

#### Annual achievements
- The 2020 consultation plan, including both board (strategic) consultations, as well as all operational consultations was approved at the December 2019 meeting.
BR3 Provide ongoing and appropriate strategic direction

The Executive Committee shall:

- Develop an annually updated, three-year strategic plan that considers emerging trends and challenges.
- Ensure that annual operating plans and budgets are developed that specify the actions and resources necessary to achieve the strategic plan.
- Ensure the use of a continual improvement process to track, report, and when necessary, correct, performance against set objectives of:
  - The strategic plan
  - The annual operating plan

Intended outcomes:

- Codify a more structured means of providing strategic direction, including ongoing and clear communications to all stakeholders as to the progress-against-plan, as well as mitigation strategies put in place to counter any areas of gaps or weaknesses.
- This Board responsibility will be achieved when the regulators agree and have confidence that the Board’s strategic plans meet their needs, and that the annual operating plan delivers on those needs.

Objectives:

- Launch the 2019-2021 strategic plan
- Develop and approve two sub-strategies within that plan
- Begin work on the 2022-2024 strategic plan

Annual achievements

- The following sub-strategies were approved, in support of the 2019-2021 Strategic plan:
  - Strategic Priority #3: recruitment, retention, and professional development of women in the engineering profession, in October 2019
  - Operational Imperative #5: advocating to the federal government, in October 2019
- The strategic planning task force was struck at the October 2019 meeting and has initiated planning, with an environmental scan and SWOT analysis consulted on with key stakeholders
**BR4 Ensure the development and periodic review of Board policies**

The Governance Committee shall:

- Implement the Funding Task Force recommendations (this initiative was transferred to the Finance, Audit, and Risk Committee).
- Maintain effective governance principles and policies.
- Perform ongoing governance improvements.
- Implement Nominations Task Force recommendations.

The Finance Committee shall:

- Ensure external and direct inspection and monitoring of fiscal policy and responsibilities.

**Intended outcomes:**

This responsibility will be fulfilled when the Board and regulators are satisfied that:

- All Board policies are current and relevant to established requirements.
- Action plans with clear objectives are established based on the recommendations of any task force established by the Board.
- Action plans to implement recommendations are integrated with the Board’s plans.

**Objectives:**

The June 2018 – June 2019 Governance Committee work plan included

- The review of policies
- Finalize and implement Governance 2.0 work through the GSPC project
- Implement the Nominations Task Force work

The June 2019 – June 2020 Governance Committee work plan includes:

- The review of policies
- Consider Board governance gaps and recommend training
- Develop first governance effectiveness survey
- Consideration of assignment of new directors to committees
- Review of CEO’s operational committee report and recommendations for alignment with governance
- Consideration of Board size

The June 2019 – July 2020 Finance, Audit, and Risk Committee work plan included two items related to this responsibility:

- Development of a Net Asset Policy
- Development of an Investment Policy
- Overseeing the audit

**Annual achievements:**

In the period from January 1, 2019 to December 31, 2019 the Governance Committee:

- Finalized and implemented the Board’s portion of the Governance 2.0 work, and closed the GSPC project
- Implemented the governance items from Nominations Task Force, including new policies for the CEAB and CEQB
- Worked on, and received approval for 30 revised policies and rescinded six policies
- Initiated work on the governance effectiveness survey, and the issue of Board size

During this same time period, the Finance, Audit, and Risk Committee:

- Oversaw the results of the 2018 audit
- Approved the 2019 audit plan
- Initiated work on the net asset and investment policies
- Initiated work on addressing the Funding Task Force recommendations.
BR5 Ensure the CEO maintains and acts on a robust and effective risk management system which reflects the Board’s risk tolerance level and directs Board-approved mitigation strategies

The Audit Committee shall:

- Ensure the Board is wholly accountable for risk management and for directing the CEO through clear and timely mitigation strategies.
- Monitor the risk register and ensure the Board is aware and able to take timely action on all relevant risks.

Intended outcomes:

- The Board and regulators are fully aware of any relevant potential risks, have clearly established appropriate levels of risk tolerance, and are satisfied that any necessary risk mitigation strategies are defined and acted upon.

Objectives:
The June 2018 – June 2019 Finance Committee work plan included:
- Review and update Board on current risks and related mitigation strategies

The June 2019 – June 2020 Finance, Audit, and Risk Committee work plan included:
- Review the risk register and make recommendations to the Board
- Conduct a triennial strategic risk review

Annual achievements
The Finance, Audit, and Risk Committee was formed in May 2019, taking on the responsibilities of the former Audit and Finance committees. In the period January 1, 2019 to December 31, 2019, the committee:
- Reviewed the risk register quarterly, and provided updates at each Board meeting
- Conducted a triennial review of strategic risks as an input for the 2022-2024 strategic plan
- Initiated work to update and improve the presentation of the risk register and the treatment of any risk rated “red”
BR6 Provide orientation of new directors, and continuing development of directors and others who work closely with the Board

Develop and deliver orientation materials and programs that facilitate the effectiveness of directors. The Board’s orientation program will take into account the challenges of onboarding individuals new to their function and provide opportunity for the ongoing of development of those continuing in their term.

Intended outcomes:
- The quality of orientation provided to new directors will improve over the course of this strategic plan period, especially once the roles of directors, members, and presidents are clarified as a part of ongoing governance work in the fall and winter of 2018-19.
- This responsibility will be fulfilled when directors express their satisfaction with the effectiveness of the Board orientation program.

Objectives:
The June 2019 – June 2020 Human Resources Committee work plan included:
- Nominate new committee members and recommend chairs
- Review policies for Engineers Canada’s volunteers and staff
- Provide oversight of the director onboarding and development programs
- Review succession planning for the CEO, the Board and its committees

Annual achievements
During the period from January 1, 2019 to December 31, 2019 the committee:
- Established the membership for all 2019-2020 committees and recommended chairs, and named director appointees to the CEAB, the CEQB, and the 30 by 30 champions network
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**BRIEFING NOTE:** For decision

<table>
<thead>
<tr>
<th>Objectives for the chief executive officer</th>
<th>4.2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose:</strong></td>
<td>To approve objectives for the CEO for 2020.</td>
</tr>
<tr>
<td><strong>Link to the strategic plan</strong></td>
<td>Board Responsibility #1: Hold itself, its directors, and its direct reports accountable</td>
</tr>
<tr>
<td><strong>Motion(s) to consider:</strong></td>
<td>THAT the Engineers Canada Board approve the 2020 Objectives for the chief executive officer, on recommendation of the HR Committee.</td>
</tr>
<tr>
<td><strong>Vote required to pass:</strong></td>
<td>Simple majority</td>
</tr>
<tr>
<td><strong>Transparency:</strong></td>
<td>Open session</td>
</tr>
<tr>
<td><strong>Prepared by:</strong></td>
<td>Stephanie Price, Executive Vice-President Regulatory Affairs and Secretary</td>
</tr>
<tr>
<td><strong>Presented by:</strong></td>
<td>David Lynch, Chair of the HR Committee, President</td>
</tr>
</tbody>
</table>

**Problem/issue definition**
- Policy 4.7, Monitoring of CEO establishes the procedure for evaluating the CEO’s performance and for providing feedback and guidance to the CEO.
- The CEO is required to have annual objectives on which performance can be measured. The attachment describes the objectives that are proposed for 2020.

**Proposed action/recommendation**
- Approval of the proposed 2020 objectives for the CEO.

**Other options considered:**
- None

**Risks**
- The objectives set the expectations of performance from the Board. Lack of objectives leads to ambiguity and uncertainty of direction and focus. This absence of clarity causes confusion and frustration amongst staff and for regulators. Establishing transparent objectives will mitigate this risk.

**Financial implications**
- None

**Benefits**
- An engaged CEO who both understands what is required to be successful and is able to motivate and guide staff to drive performance and results.
- Clarity for directors, regulators, and staff on the expectations for the CEO.

**Consultation**
- These objectives were developed with reference to the strategic plan, business plan, and budget, with consultation and input from the CEO, members of the HR Committee, and senior staff leadership.

**Next steps (if motion approved)**
- Share objectives with the CEO.
- At year’s end, select interviewees and conduct the evaluation.

**Appendices**
- 2020 CEO objectives
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Objectives for the Chief Executive Officer – 2020

The following series of considerations may be used by the Human Resources Committee to provide the basis for the evaluation of the performance of Engineers Canada's Chief Executive Officer. It covers the period January 1, 2020 until December 31, 2020.

It is proposed the evaluation utilize a numerical assessment system as follows:

1. **Unacceptable**: Performance is below accepted levels
2. **Needs Improvement**: Fails to meet one or a few expectations
3. **Satisfactory**: Performance is adequate in carrying out the duties of the position
4. **Excellent**: Performance is exceptional – it exceeds standards or expectations

Achievement of strategic objectives

- **Strategic priority 1: Accreditation Improvement Program**
  - Implement our accreditation management system (Tandem) considering the needs of HEIs and Engineers Canada
  - Plan the transition of and initiate adoption of the accreditation management system by HEIs, CEAB, and Engineers Canada
  - Design, build, and plan implementation of improvements to Engineers Canada’s accreditation volunteer management process, ensuring alignment to the Engineers Canada’s volunteer management process

- **Strategic priority 3: Recruitment, retention, and the professional development of women in the engineering profession**
  - Publish best practice report on EIT/MIT programs, licensure assistance programs, and employer awareness programs on Engineers Canada’s public website.
  - Publish, for the use of the Board and the regulators, an aspirational scorecard for 30 by 30 with yearly targets.
  - 30 by 30 network is expanded to include all HEIs.
  - Engineers Canada explores the development of an equity, diversity, and inclusion training module that is available to regulators

- **Strategic priority 4: Competency-Based Assessment Project**
  - Complete the project, fully bilingual, with the Canadian environment competencies included

- **Operational imperative 2: Facilitating and fostering working relationships between and among the regulators**
  - Enable networking opportunities for the regulator presidents within the context of regular Board meetings
CEO PERFORMANCE OBJECTIVES - 2020

- Support an orientation program about Engineers Canada for the regulator presidents, and other Engineers Canada and regulator staff and volunteers

- **Operational imperative 3: Services and tools for the engineering regulators**
  - Finalize planning and submit project charter with budget for the new national membership database (NMDB) tool

- **Operational imperative 4: National programs**
  - Signed divestment agreement between Engineers Canada and successful proponent for Public Infrastructure Engineering Vulnerability Committee (PIEVC) program and protocol
  - Signed divestment agreement between Engineers Canada and successful proponent for Infrastructure Resilience Professional (IRP) program

- **Operational imperative 6: Actively monitoring, researching, and advising on changes and advances that impact the Canadian regulatory environment and the engineering profession**
  - Submission and approval of the new sub-strategy
  - Launch the first research strategy

- **Operational imperative 7: Managing risks and opportunities associated with mobility of work and practitioners internationally**
  - Submission and approval of the new sub-strategy
  - Initial implementation of the new sub-strategy
  - Launch the new international institutions and degrees database improvement project

- **Operational imperative 8: Fostering recognition of the value and contribution of the profession to society and sparking interest in the next generation of engineering professionals**
  - Submission and approval of the new OP8 sub-strategy
  - Conduct a review and submit recommendations to the Board on how best to align Engineers Canada’s scholarships program with its strategic objectives

- **Operational imperative 9: Promote diversity and inclusion in the profession that reflects Canadian society**
  - An Indigenous engagement plan is created on building relationships with Indigenous organizations and engineers

- **2022-2024 Strategic plan**
  - Support the board in the delivery of a feasible 2022-2024 strategic plan

- **Engineering Deans Canada (EDC)**
  - Assist the Board in the management of the relationship with EDC.
Organizational stability

- Maintain and improve commitment to Excellence, Innovation and Wellness standard.
- Implement action plan to address results of employee engagement survey.
- Evolve the consultation process based on consultation data and feedback from regulators, the Board, and Engineers Canada staff.
- Undertake an organizational HR resourcing assessment.

Financial and operational management

- Meet 2020 budget and provide appropriate reporting on operational plan.
- Develop and obtain Board approval of 2021 budget and operational plan (including multi-year forecast approach).
- Provide an assessment of the long-term financial and operational viability of Engineers Canada.
- Implement Human Resources Information System (HRIS) modules as follows:
  - Enhanced HR (policy acknowledgment, employee professional development tracking)
  - Time & attendance (electronic timesheets, time-off requests, approval of hours)
  - Payroll module (online pay statements & tax forms, electronic ROE’s, employee pay history, reports)
  - Performance management (develop and implement performance management system)
- Develop a plan, for approval of the Human Resources Committee, for planned and emergency succession of the CEO position.
BRIEFING NOTE: For decision

<table>
<thead>
<tr>
<th>Net asset planning document</th>
<th>4.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose:</td>
<td>To respond to the Board’s request for development of a net asset policy.</td>
</tr>
<tr>
<td>Link to the strategic plan</td>
<td>Board responsibility 4: Ensure the development and periodic review of Board policies</td>
</tr>
<tr>
<td>Motion(s) to consider:</td>
<td>THAT the Board approve the net asset structure, on recommendation of the FAR Committee, and direct the Governance Committee to develop a net asset policy in accordance with the structure recommendations.</td>
</tr>
<tr>
<td>Transparency:</td>
<td>Open session</td>
</tr>
<tr>
<td>Vote required to pass:</td>
<td>Simple majority</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Jorge Monterrosa, Controller</td>
</tr>
<tr>
<td>Presented by:</td>
<td>Lisa Doig, FAR Committee Chair</td>
</tr>
</tbody>
</table>

Problem/issue definition

- Engineers Canada aims to effectively use its net assets to maximize its ability to achieve its objectives and manage its financial risks. Net assets are defined as the collection of all restricted and unrestricted reserves.

- At its May 2019 meeting, the Engineers Canada Board approved a series of motions to update the amount of funds currently in the unrestricted reserves and to transfer funds from the restricted reserves to the unrestricted reserves. The last of these motions stated:

  5752 THAT the Engineers Canada Board:
  Direct the proposed Finance, Audit, and Risk Committee to develop, for approval of the Board, an official net asset policy to determine the level of net assets required to mitigate identified risks and fund future anticipated major projects.

- A precursor to developing a net asset policy would be the development of the appropriate structure for the net assets to be held in reserve by the organization.

- The Finance, Audit, and Risk Committee (FAR) has worked with KPMG, our external auditor, to establish general criteria for setting and maintaining appropriate levels and structure for net assets.

- KPMG was engaged to provide an analysis of Engineers Canada’s net assets and propose the required net asset structure. The resulting document (Appendix A) outlines the recommended structure of net assets to meet the needs of the organization and respect Canada Revenue Agency (CRA) preferences in this regard.

Other options considered:

- The proposed net asset structure is the result of KPMG’s recommendations. This net asset planning document, in addition to the CRA guidelines, will provide a foundation for discussions on how to best manage the net asset growth. No other options were considered.

Risks

- This document demonstrates Engineers Canada’s commitment to ensuring appropriate levels of reserves. Having a third-party professional (KMPG) evaluate the reserve levels in consideration of Engineers Canada’s business allows for assurance that reserves are in line with CRA expectations.
• This document complies with KPMG’s professional recommendation for documentation that demonstrates due diligence at the Board level with regards to setting the appropriate reserve levels and could be provided to CRA if required.

• The FAR Committee is satisfied with the limits as presented within the net asset structure and does not foresee any major risks with the amounts proposed.

Financial implications
• This net asset structure ensures that unrestricted reserves will be maintained to fund the appropriate level of working capital needed to sustain regular operations.

• The recommended levels can be respected without imposing any financial burden, given the projected reserves in the budget for 2020.

Benefits
• This document is a planning tool that, if approved, will demonstrate to the CRA that Engineers Canada is considering the appropriate levels of reserves required and why. Approval of the net asset structure as outlined in the document (appendix) will serve two purposes:
  • demonstrate to the CRA that all internally restricted assets are held for either strategic or contingency reasons
  • establish due diligence and ensure that FAR and the Board regularly review the net asset levels to consider whether they remain appropriate and if they require adjustment

• This document will also assist the Board in addressing the recommendations of the Funding Task Force which suggested that reserves should not be allowed to grow beyond a defined maximum.

Consultation
• FAR carried out a detailed review of the analysis and recommendations presented by KPMG on November 13 with further discussions had on December 8. FAR is satisfied that the analysis and recommendations presented by KPMG are sound and provide a solid foundation for the structuring of the net asset portfolio, and for the development of a net assets policy.

• In discussion with staff, it was raised that this structure will require more active management of net assets than what has previously been in place.

• Regulators have not been consulted on this policy

Next steps
• If the Board approves the motion, then:
  • the Governance Committee will, in collaboration with FAR, develop a net assets policy, created in accordance with KPMG’s recommendations. Once the net assets policy is developed, it will be presented to the Board for final approval.

  • KPMG recommends the net asset structure document be reviewed annually to demonstrate active management and ongoing oversight. It will be presented to the Board in February, prior to the start of the budget process.

Appendix
• KPMG report: proposed net asset structure recommendations and analysis
**Net asset structure**

**Overview**

Please find attached the revised net assets paper which has been revised to reflect the comments of the Finance, Audit and Risk Committee at the November meeting.

This paper is meant to be a standalone document evidencing the categories and balance of internally restricted net assets and unrestricted net assets as approved by Board, as at December 31, 2019. This paper would be maintained by management.

This paper will be provided to the external auditors in support of the note disclosure in the financial statements. In addition, if the CRA were to audit Engineers Canada, this paper would be evidence of the rationale for Engineers Canada’s net assets and of governance oversight by the Board and its committees.

**Net Asset Policy**

Based on discussion at the November Committee meeting, there will also be a general policy prepared for net assets which will document the roles and responsibilities for net assets and for the annual review of the amounts and purposes of the internally restricted net asset funds.

As such, the references to roles and responsibilities have been removed from this paper.

**Comparison to Prior Year**

Members of the Committee requested a comparison to the prior year’s reserves. This has been provided in the table below.

<table>
<thead>
<tr>
<th>December 31, 2018 (Actual)</th>
<th>December 31, 2019 (proposed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internally Restricted:</td>
<td>Internally Restricted:</td>
</tr>
<tr>
<td>4-year rolling operational</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>General contingency reserve</td>
<td>$1,325,000</td>
</tr>
<tr>
<td>Capital res. for purchase of assets</td>
<td>$250,000</td>
</tr>
<tr>
<td>Other</td>
<td>$211,400</td>
</tr>
<tr>
<td><strong>Total Internally Restricted</strong></td>
<td><strong>$5,786,400</strong></td>
</tr>
<tr>
<td>Invested in TCA and Int. Assets</td>
<td>$564,690</td>
</tr>
<tr>
<td>Unrestricted Net Assets</td>
<td>$68,220</td>
</tr>
</tbody>
</table>
Net assets

<table>
<thead>
<tr>
<th>Date of approval:</th>
<th>Effective Date: Year Ended December 31, 2019</th>
</tr>
</thead>
</table>

1.1  NET ASSETS OVERVIEW

Engineers Canada aims to effectively use its net assets to maximize its ability to achieve its objectives. The accumulation of net assets in and of itself is not a goal of Engineers Canada. However, prudent financial management dictates that Engineers Canada maintain the necessary net assets to ensure stability for the delivery of on-going programs and services, to fund strategic initiatives and to mitigate the financial impact of risks to its operations and achievement of strategic objectives.

As a best practice of Canadian not-for-profit organizations, Engineers Canada should explicitly establish internally restricted net assets (often called “reserves” or “reserve funds”) to demonstrate the intent and purpose for its net assets to its members and stakeholders. This practice is in accordance with Canadian Accounting Standards and is supported by the Canada Revenue Agency in demonstrating Engineers Canada’s not-for-profit status under the Income Tax Act (Canada).

Changes in internally restricted net assets should be consistent with Engineers Canada’s overall strategy, priority initiatives, and risk assessment. Annually, Engineers Canada should generally review the use and the adequacy of the balances in the internally restricted funds. Engineers Canada should also do a more in-depth assessment of its internally restricted net assets during its three-year strategic planning process, including a comprehensive risk assessment.

This paper uses standard definitions of net assets, which are provided in the Appendix.

1.2 SUMMARY OF NET ASSETS

Below is a summary of the internally restricted funds, unrestricted net assets and the investment in capital assets and intangible assets of Engineers Canada. Further rational is provided later in this paper.

**Internally Restricted Net Assets**

<table>
<thead>
<tr>
<th>Internal restriction</th>
<th>Purpose</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal defense fund</td>
<td>The legal defense fund is established by the Board to ensure that funds are available in case of legal challenge, to provide funds to cover deductibles for insurance, and to assist the engineering regulators where it is determined that they do not have the financial resources to defend an enforcement action and/or statutory obligation that has a clear and significant impact on the other regulators.</td>
<td>$1,500,000</td>
</tr>
</tbody>
</table>
| Strategic priorities fund | The strategic priorities fund is established by the Board to provide funds:  
- For planned strategic initiatives  
- For information technology projects consistent with the approved strategic plan;  
- To respond to future risks and investment needs in the performance, accessibility, and security of its information technology assets. | $2,000,000 |
| Contingency reserve fund | The contingency reserve fund is established by the Board to mitigate the financial impact of the risk of future unexpected, negative events that could have a significant, adverse impact on the operations, revenues and expenses of Engineers Canada. | $2,500,000 |
|                       | Total internally restricted net assets                                                                                                              | $6,000,000 |
### Unrestricted net assets and investment in capital assets and intangible assets

<table>
<thead>
<tr>
<th>Asset category</th>
<th>Purpose</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment in capital assets and intangible assets</td>
<td>The investment in capital assets and intangible assets is a calculated amount consisting of the net book value of capital and intangible assets less any debt relating to them.</td>
<td>$564,690 (2018 FS amount)</td>
</tr>
<tr>
<td>Unrestricted net assets</td>
<td>Unrestricted net assets are maintained to fund the appropriate level of liquid working capital needed to maintain regular operations.</td>
<td>No less than $1,000,000</td>
</tr>
<tr>
<td></td>
<td>Unrestricted net assets are the residual of total net assets less internally restricted and investment in capital and intangible assets.</td>
<td></td>
</tr>
</tbody>
</table>

### 1.3 INTERNALLY RESTRICTED NET ASSETS

Engineers Canada will establish internally restricted net assets (commonly referred to as ‘reserves’ or ‘reserve funds’) for specific operating or capital purposes as allowed under Canadian accounting standards for not-for-profit organizations. Internally restricted net assets are supported by a clear statement of purpose, specific level of funding required, and as needed, a projected time frame for the accumulation or draw down of the balance. The purpose of internally restricted net assets will be consistent with the objectives of Engineers Canada’s strategic initiatives and operating plans, as well as identified risks to the achievement of these objectives.

Engineers Canada has identified three categories of internally restricted net assets that are required, as follows:

**a) Legal defense fund**

Engineers Canada requires a legal defense fund to be available to use to fund legal expenses related to issues concerning the engineering profession, including protecting the sovereignty of the term “engineer” and other terms, and to intervene with respect to legal cases that have a significant national interest, or to assist engineering regulators that do not have the financial resources to defend an enforcement action and/or statutory obligation that has a clear and significant impact on other members.

In 2008, Engineers Canada commissioned an actuarial study related to its reserves, which recommended setting up a Legal Defense Fund of $1,000,000 with an annual increase of $40,000. Based on this study, Engineers Canada has established a legal defense fund of $1,500,000.

**b) Strategic priorities fund**

Engineers Canada is entering a period of significant transition with its 2019-21 Strategic Plan, which is calling for specific initiatives to enable the plan, investments in competency-based assessment, and improvements to technology-enabled services.

For technology-enabled services, in addition to the planned projects to improve operations and services to members, Engineers Canada is operating in an environment of rapid technological change and accelerating risks (such as cyber security). Engineers Canada expects that it will need to make a substantial investment in its information technology and systems over the next five years in order to implement standard/best practices in performance, accessibility, and security. This Fund is intended to provide funding for both the current planned projects and future projects.

Based on the 2019-21 Strategic Plan and future technology risks, Engineers Canada has established a strategic priorities fund of $2,000,000.

**c) Contingency reserve fund**

Engineers Canada will maintain a contingency reserve fund to mitigate the financial impact of the risk of a significant, negative event caused by changes in their political, economic, and regulatory environment that are outside of its control.
The current, more significant risk factors that could impact significantly and adversely impact revenues include:

- Membership demographics: Regulator assessment revenues are based on the number of members. As with many professional organizations, Engineers Canada’s membership is aging, so there is a significant risk of a sustained decline in assessment revenues, with a corollary impact on affinity revenues.

- Affinity programs: Engineers Canada’s largest revenue stream is affinity and insurance revenues. These revenues would be impacted by either a departure of a province from an affinity program, or a cancellation or non-renewal of a program by the service provider.

- Provincial regulators: With all national membership organizations, there is a risk that a province could exit the national organization.

Based on these and other risks identified in Engineers Canada’s assessment of risks, Engineers Canada has established a contingency reserve fund of $2,500,000.

This amount is equivalent to approximately three-months of operating costs of Engineers Canada, which is a consistent benchmark used by not-for-profit organizations for general contingency reserves.

1.4 INVESTMENT IN CAPITAL ASSETS AND INTANGIBLE ASSETS

The investment in capital assets and intangible assets is a calculated amount, in accordance with Canadian Accounting Standards, as defined in the appendix below. Engineers Canada’s historical practice is to fund its capital assets and intangible assets with its net assets, other than deferred lease inducements related to its leased premises. This policy supports the creation of separate reserves to fund the acquisition of capital assets and/or information technology (as with the strategic priorities fund above) to provide appropriate funds for future acquisitions.

1.5 UNRESTRICTED NET ASSETS

Unrestricted net assets are maintained to fund the appropriate level of liquid working capital needed to maintain regular operations. Engineer Canada’s target unrestricted net asset balance will be determined annually, with consideration for immediate liquidity needs and Engineers Canada’s cash flow requirements beyond those addressed in existing internally restricted balances. The target unrestricted net asset balance will be consistent with recommendations made by management to the Board of Directors as part of the annual budgeting process.

Based on an analysis of monthly and annual expenditures and cash flows, Engineers Canada plans to maintain an unrestricted net asset balance of no less than $1,000,000 on an on-going basis.

1.6 Appendix: Definitions

This paper references the following definitions:

- **Net assets**: Total net assets represent a not-for-profit organization’s residual interest in its assets after deducting its liabilities.

- **Investment in tangible capital and intangible assets**: The amount of net assets that are funding Engineers Canada’s tangible capital and intangible assets. This amount is calculated as:

  Net book value of tangible capital and intangible assets
  Less: long-term debt related to the tangible capital and intangible assets
  Less: deferred lease inducements related to capital assets
  Less: deferred contributions used to acquire tangible capital and intangible assets
  Investment in tangible capital and intangible assets
- **Internally restricted net assets (‘reserves’)**: Net asset amounts that have been set aside by Engineers Canada for a specified future purpose or specified future contingencies. The two general categories of internally restricted net assets that are commonly used by not-for-profit organizations are:

  **Strategic reserves** provide funding for, typically one-time, projects, investments or events that support the achievement of the organization’s strategic priorities to allow for regular operations to continue in the year of these strategic initiatives. Strategic reserves should be aligned with the not-for-profit organization’s strategic plan.

  **Contingency reserves** mitigate the financial risk of a significant uncontrollable/unexpected negative event that would have an adverse impact on the financial position of a not-for-profit organization. These events typically cause an immediate and/or sustained decline in annual revenues or increase in expenses. A contingency reserve is held to provide funds to cover the cost of the contingency to allow the not-for-profit organization to maintain regular operations while responding to the negative event. The contingency reserve is normally supported by an official risk assessment performed by the not-for-profit organization.

- **Unrestricted net assets**: Net assets amounts that are not internally restricted and are not investments in capital assets and intangible assets. Unrestricted net assets are commonly viewed as the amount of liquid working capital needed for regular operations.
**BRIEFING NOTE: For decision**

<table>
<thead>
<tr>
<th>Response to the Funding Task Force recommendations - Amendment to Bylaw dealing with the Per Capita Assessment fee</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose:</strong></td>
</tr>
<tr>
<td><strong>Link to the strategic plan:</strong></td>
</tr>
<tr>
<td><strong>Motion(s) to consider:</strong></td>
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<td><strong>Vote required to pass:</strong></td>
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<tr>
<td><strong>Transparency:</strong></td>
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<tr>
<td><strong>Prepared by:</strong></td>
</tr>
<tr>
<td><strong>Presented by:</strong></td>
</tr>
</tbody>
</table>

**Problem/issue definition**

- In January of 2018 the Board approved motion no. 5680 which proposed, inter alia:

  THAT a Task Force be struck to undertake a review of the Engineers Canada funding model, including consultation with the engineering regulators, development of alternative models, and analysis of the impacts of the current and alternative models on the engineering regulators and Engineers Canada.

- The creation of the Funding Task Force was due in part to concerns from some regulators about the transparency of the contract and revenues generated and distributed through the TD affinity program.
Over the course of the remainder of the year and into 2019 the FTF met both face-to-face and by teleconference on several occasions to fulfill its mandate.

In May of 2019 the FTF submitted its recommendation to the Engineers Canada Board and the following motions were adopted:

**Motion 5753**

**THAT the Engineers Canada Board:**

a) Direct the proposed Finance, Audit, and Risk Committee to develop a policy that will limit the growth of the operational budget (excluding major projects) of Engineers Canada to an amount not greater than the rate of inflation, for consideration by the Board at its meeting of October 4, 2019.

_Carried_

**Motion 5754**

**THAT the Engineers Canada Board:**

b) Direct the proposed Finance, Audit, and Risk Committee to develop a policy that will cap the unrestricted reserve of Engineers Canada at $2M (subject to periodic review) and propose options for the disposition of any amount above the $2M, for consideration by the Board at its meeting of October 4, 2019.

_Carried_

**Motion 5755**

**THAT the Engineers Canada Board:**

c) Recommend to the Members, at their meeting of May 23, 2020, that the Engineers Canada By-law be changed to increase the Per Capita Assessment by 2% commencing in 2022 and increase by a further 2% every year thereafter.

_Deferred to October 4, 2019_

On August 12, 2019, APEGA advised Engineers Canada that they had selected a different insurance provider and effective August 16, 2019 they would no longer be part of the Engineers Canada TD Home and Auto Insurance Program.

The Finance, Audit, and Risk Committee (FAR) met on August 15, 2019 to consider the above noted motions and several concerns were raised:

- The committee felt it would be imprudent to consider these motions absent of a better understanding of the potential impacts (both immediate and long-term) of APEGA’s decision on the Engineers Canada budget and its associated reserves; and,
- The motions were meant to be considered as a whole and to separate them out individually might create unintended effects.

Consequently, the FAR felt that consideration of the above motions should be deferred until February 2020 so that the effects of APEGA’s decision can be analyzed and presented to the Board. This analysis was presented to the Board at its meeting of October 4, 2019 and the overall effect of these changes is being closely monitored.

After careful consideration, the FAR recommends these proposed changes to the By-law as the most efficient manner to achieve the intended outcomes of the FTF recommendations, namely, to ensure that growth of the operational budget and the reserves are kept in check and to allow any benefits resulting from these actions to be shared by all Member-regulators.
Proposed action/recommendation

- It is recommended that this motion be approved.

- Part of the work performed by the FAR is to establish a net assets policy. As a first step, FAR is also recommending a net assets structure (see agenda item 4.3) that includes a proposed minimum level for the unrestricted reserves. This new structure, if adopted, will require Engineers Canada to have a mechanism/process to actively manage the unrestricted reserves.

- By actively managing the per capita assessment revenue, Engineers Canada will be able to manage its annual financial results and, given that the annual surplus/deficit flows directly into the unrestricted reserves, ultimately manage the levels of the reserves.

- The determination of the amount of the annual Per Capita Assessment fee will be part of the annual budgeting process. During the budgeting process, multi-year projections will be developed to estimate the future balance of all reserves (restricted and unrestricted). Once the impact of all factors affecting reserves are projected, the future annual Per Capita Assessment fee revenues can be estimated such that unrestricted reserves remain in the required range.

Other options considered

- A range of options were considered by FAR:
  
  o Implement the original motions calling for an annual increase of assessment fees by 2% and a capping of the unrestricted reserve, with any excess being distributed back to regulators. This was felt to be too restrictive and, not knowing the future, might have unintended consequences. In addition, Engineers Canada’s external auditor, KPMG, advised that the Canada Revenue Agency (CRA) is of the opinion that reserves are to be used to carry out the purposes of the organization – both strategic and operational. Further, to comply with the CRA in the disposition of a surplus, providing refunds of past assessment fees paid is not recommended and issuing cheques to the Member-regulators to rebate assessment fees paid at earlier dates can also lead to serious concerns.

  o Increase the cost-sharing ratio in the existing affinity agreements with the Member-regulators to reduce the inflow of revenues. Unfortunately, not all regulators participate in the affinity program, so any benefits would not be realized by all and could be perceived as preferential treatment for some.

  o Use any excess reserves to set up a granting program which could be accessed by the Member-regulators for priority projects which contribute to the strategic priorities of Engineers Canada. Some regulators indicated they would not support such a proposal, and there is the risk that this also could be perceived as preferential treatment for some. However, KPMG did advise that this option would be acceptable for CRA compliance.

Risks

- As a result of the proposed Bylaw amendment, the annual assessment fee could vary year over year, resulting in a fiscal unpredictability for Member-regulators in their own budgeting process. To mitigate this risk, Engineers Canada could publish a four-year range for the assessment fee, for the use of regulators. Annually, the Board would set the assessment fee within this range, to account for current realities.

- KPMG has advised that the CRA would be concerned with large fluctuations in assessment fees, but would not be concerned with smaller fluctuations that are well-justified. Proper documentation will be critical to demonstrating due-diligence by the Board with regards to setting the annual assessment fee and the decision should be considered jointly with the budget.

- Errors or oversights in the setting of the annual assessment fee could introduce unintended fiscal risk for Engineers Canada:
A significant decrease in the per capita assessment fees could result in under-funding for future operational years. A significant increase in the per capita assessment fees would raise concerns with CRA, and lead to issues for the Member-regulators in having to commit to an unplanned expense.

Finally, there is the risk that the Members will either not follow the recommendation of the Board or will struggle to agree on the amount of the assessment fee. This would result in severe unpredictability for both regulators and for Engineers Canada.

**Financial implications**
- If properly implemented, this recommendation should result in stability for the operational budget, and the ability to actively manage reserves in keeping with the net asset structure.

**Benefits**
- Member-regulators will have increased control over the size of Engineers Canada’s budget and a mechanism to temper any growth in reserves.
- The Members will have an increased role in the governance of Engineers Canada through annual participation in setting the assessment fees.
- Any reductions in the annual assessment fee will be equally shared by all regulators (on a per-capita basis).
- As advised by KPMG, this proposal meets the CRA’s test in terms of appropriate assessment fee management.

**Consultation**
- A representative from KPMG who reviewed this proposal with the FAR Committee on November 13 agreed that this proposal could meet intended outcomes while complying with CRA.
- The Governance Committee has reviewed and approved the proposed Bylaw wording.
- D. Lynch has informally discussed the concept with some regulators during recent visits.
- In discussion with staff it was raised that this structure will require more active management of net assets than what has previously been in place, requiring additional resources.
- Regulators have not been formally consulted on this matter.

**Next steps (if motion approved)**
- Consultation would occur with each regulator on this matter.
- The proposal will be put before the Members at their meeting on May 23, 2020.
- The revised Bylaw will become effective for the 2022 budgeting cycle (i.e. the assessment for 2022 will be approved by members prior to July 2021).
- The setting of the required annual per capita assessment fee will be incorporated into the Engineers Canada budgeting process.

**Appendix**
- None
Problem/issue definition

- In May 2018, Engineers Canada’s Board of Directors approved a new strategic plan, which highlighted, in Operation imperative 8 (OP8), the submission of an analysis, rationale, and recommended strategy to the Board on how best to meet both of OP8’s intended outcomes:

  1) Leverage existing opportunities to foster recognition of the value and contribution of the profession without embarking on cost-prohibitive endeavors.
  2) Leverage partnerships and joint ventures that can spark interest in the next generation of engineering professionals without developing or wholly sustaining such programs internally.

- Since the approval of the strategic plan, Engineers Canada has conducted preliminary research and an environmental scan and held face-to-face consultations with regulator representatives. Based on the results of these, a recommended sub-strategy was developed.

Proposed action/recommendation

- Recommend that the Engineers Canada Board of Directors approve the attached sub-strategy.

Financial implications

- Financial implications are included in the 2020 budget.

Consultation

- In January 2019, a face-to-face consultation was held with Engineers Canada’s Equitable Participation in Engineering Committee, which included an overview of the approach for the OP8 sub-strategy.
- In June 2019 at the Board strategic retreat, an overview of the approach for the OP8 sub-strategy was presented.
- In October 2019, a face-to-face consultation with regulators’ representatives was held and the results circulated to all participants to confirm their feedback.
Next steps (if motion approved)
• Sub-strategy will be implemented.

Appendices
• OP8 sub-strategy – Fostering recognition for the value of the profession to society and sparking an interest in the next generation of engineering professionals.
• Confidential outreach and engagement benchmarking report - located on the members only area of the website (password required for access) at the following URL:
Engineers Canada Strategic Plan 2019-2021

Operational Imperative 8: Fostering recognition of the value of the profession to society and sparking interest in the next generation of engineering professionals.

Questions concerning the content of this report should be directed to:

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Manager, Outreach
Engineers Canada
Kim.bouffard@engineerscanada.ca
613.232.2474 Ext. 207
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EXECUTIVE SUMMARY

In May 2018, Engineers Canada’s Board approved a new strategic plan, which highlighted, in Operational Imperative 8 (OP8), the submission of an analysis, rationale, and recommended sub-strategy to the Board on how best to meet both of OP8’s intended outcomes:

1) Leverage existing opportunities to foster recognition of the value and contribution of the profession without embarking on cost-prohibitive endeavors.
2) Leverage partnerships and joint ventures that can spark interest in the next generation of engineering professionals without developing or wholly sustaining such programs internally.

Among the intended outcomes the sub-strategy will:

- Define achievable objectives for fostering recognition of the profession by society and sparking interest in the next generation of engineering professionals.
- Review current efforts within the two domains above and assess their relevance and effectiveness at achieving the updated objectives.
- Make recommendations on the new or existing initiatives most likely to be effective at achieving the recommended objectives within available resources.
- Be ready to implement within 90 days of Board approval.

INTRODUCTION

The OP8 sub-strategy is designed to leverage existing opportunities, programs, and partnerships. The recommendations and sub-strategy presented were developed in collaboration and consultation with our provincial and territorial regulators and informed by research into current and future trends and best practices.

CLIENT DEFINITION

Engineers Canada defines our clients as the persons or organizations who ask for and receive benefit from the work of Engineers Canada. They include:

1. **Canadian engineering regulators**: Our members are the provincial and territorial engineering regulators. They regulate the engineering profession and license engineers in Canada.

2. **Higher education institutions and Engineering Deans Canada (previously the National Council of Deans of Engineering and Applied Science [NCDEAS])**

3. **Engineering profession**: This includes engineers, engineers-in-training, retired engineers, and engineering students in accredited engineering programs.
STAKEHOLDERS

For the purpose of this sub-strategy we have broken up stakeholders into four categories based on how we work with them: users, governance, influencers and providers.

1. **USERS**: the stakeholders that will use and are the beneficiaries of the outputs.
   - Professional engineers & engineers-in-training
   - Teachers and students

2. **GOVERNANCE**: are people or groups of people who have an interest in how this work is managed.

3. **INFLUENCERS**: are the people who have the power to influence decisions and the ability to change the direction of a certain project or programme.
   - **Higher education institutions**: they are the education providers that help to shape future engineers. They also play a role in recruitment of future engineers and in the promotion of the value of licensure.
   - **School boards**: The boards administer the funding they receive from the province for their schools. Some of the things school boards are responsible for are: teacher performance, approving schools’ textbooks and learning materials choices based on a list provided by the Ministry, and providing education programs.
   - **Teachers**: particularly in grades 7 to 11 play a pivotal role in helping students complete their annual education plans and progress toward their career goals.
   - **Professional associations**: that represent professions that work closely with engineers such as architects and urban planners.
   - **Industry**: large employers of professional engineers and engineers-in-training.

4. **PROVIDERS**: anyone who provides resources to the project or programme.
   - **National not-for-profits**: Girl Guides, Scouts Canada, Canadian Federation of Engineering Students (CFES), Ontario Society of Professional Engineers (OSPE).
   - **30 by 30 Champions network**

*Please note: this page is not meant to capture all our key stakeholders. Regulators are both our client (a group we serve) and a stakeholder (a group that has control and influence over our access to our secondary client (professional engineers and engineers-in-training)).

CURRENT STATE

The OP8 Benchmark Report (APPENDIX A) includes a detailed analysis of current trends, a summary of regulator outreach activities, the results of our outreach and engagement survey and summary of interviews conducted with national federations and associations that represent the following self-regulated professions: pharmacists (NAPRA), Certified Professional
Accountants (CPA Canada), geoscientists, lawyers (FLSC and CBA), architects (RAIC), landscape architects (CSLA), urban planners (CIP), and technologists (CCTT).

The key findings in the benchmark report include:

1. Given the political climate surrounding self-regulation and findings from the interviews with national professional federations and associations, Engineers Canada should, and has the capacity to, take on a leadership role in promoting and maintaining the interests, honour, and integrity of the Canadian engineering profession.

2. It is possible for a national federation like Engineers Canada to have a dual role as a regulator support and an advocate for the profession. Our current model is unique and has the potential to allow us to better serve both the regulators and the profession, avoiding the challenges of membership-based associations while strategically tackling the systemic conditions that regulators would otherwise only have the opportunity to deal with individually and reactively.

3. The provincial and territorial engineering regulators share similar challenges for outreach and engagement and collectively allocate more resources engaging K-12 students than on EITs, post-secondary students and the general public.

4. There is an opportunity for Engineers Canada to develop a pan-Canadian approach for outreach and engagement that will eliminate duplication of outreach efforts allowing us to leverage and scale existing programs, knowledge, and resources.

**DESIRED STATE AND GAP ANALYSIS**

The information below is a summary of the gaps that exist within our current programs that will impair our ability to achieve our desired state. Each desired state was created in consultation with regulator representatives at our OP8 face-to-face consultation and have been broken down by intended outcome.

**LEVERAGE EXISTING OPPORTUNITIES TO FOSTER RECOGNITION OF THE VALUE AND CONTRIBUTIONS OF THE PROFESSION**

Desired state

1. Engineers Canada works with other professional associations to create joint thought leadership on key issues illustrating our profession’s unique value to society.
2. Engineers Canada enables and fosters strategic collaboration between the regulators increasing our collective impact.
3. Engineers Canada takes the lead in the administration and coordination of National Engineering Month, a jointly administered annual outreach and engagement campaign that fosters recognition of the value of the profession to society and sparks an interest in the next generation of engineering professionals.

Gap analysis

Joint thought leadership:

- **Meaningful collaboration**: Our interactions with other professional associations and NGOs are limited to promoting or sponsoring conferences and events. Our meetings with these organizations are ad hoc. Currently, we are not working with these organizations in any meaningful way.

- **Finger on the pulse**: we do not have any direct access with industry, youth (aside from the CFES), or engineers.

Collective impact:

- **Clarity of scope**: Engineers Canada has a dual purpose to serve the collective interests of the engineering regulators AND to promote and maintain the interests, honour, and integrity of the Canadian engineering profession. The lack of clarity on Engineers Canada’s role in promoting the engineering profession makes it challenging to determine what services and activities in which Engineers Canada’s outreach and engagement team should partake.

- **Joint national outreach strategy**: outreach and engagement projects and programs are developed and implemented in isolation and are not part of a larger internal and/or external strategy limiting our collective reach and influence among key stakeholders.

- **Limited resources**: outreach and engagement currently only accounts for one per cent of Engineers Canada’s budget. This is similar across the country with provincial and territorial regulators reliant on volunteers for their outreach efforts.

Annual campaign:

- **National Engineering Month (NEM)**: has not been a coordinated effort between Engineers Canada and the regulators. Currently, we do not have a common theme, have limited brand recognition, and do not have a unified understanding of the purpose, value, or impact of NEM.
• **Sharing resources**: outside of the coordination of a bulk SWAG order, we are not leveraging our collective resources to save time, money, and ultimately increase our reach, influence, and attractiveness of the engineering profession.

• **Limited reach**: our social media and newsletter have a very limited reach and we have not leveraged our collective networks to increase NEM’s brand recognition.

**SPARKING INTEREST IN THE NEXT GENERATION OF ENGINEERING PROFESSIONALS**

**Desired state**

1. Identification, consolidation, and sharing of best practices and specific interventions at the local and national level that will inform future **school outreach programs** and strategic partnerships.

2. Engineering is recognized as a **preferred career choice**, as a profession that is familiar and desirable particularly among boys and girls between the ages of 11 and 17.

3. **ExploreEngineering.ca** is recognized as a valuable resource and communication tool by our regulators and primary target audiences.

**Gap analysis**

1. **School outreach programs**:
   - We have not conducted any research to better understand the education system in Canada and have not identified what resources, challenges, and opportunities exist to increase our value and impact within the education system.
   - None of the outreach programs that are currently being supported by Engineers Canada are measuring the impact of the program in terms of increased awareness, attitude change, or general return on investment. This is also the case with many of our regulators’ school outreach programs.
   - We do not have a list of key contacts or influencers and have not identified or reached out to any potential strategic partners.
   - Future City has been administered and heavily financed by Engineers Canada without any regulator involvement (with the exception of Engineers PEI), putting into question the sustainability of the program.

2. **Preferred career choice**:
   - Currently, Engineers Canada’s programs are run with little to no involvement of the local regulator and have not been universally adopted.
   - Go Eng Girl has limited resources and has not been successful in reaching underserved populations.
• Although we have distributed over 18,000 engineering crests, we have no strategy or process for connecting Girl Guide units to our regulators and no strategy in place for leveraging Girl Guides to increase our reach and impact.
• Outside of our Girl Guide Crest program, we currently do not have formal relationships with any other national organization or association that is engaging young people (men or women) in STEM however we have started to broker a relationship with Scouts Canada and have informal relationships with ACTUA, DiscoverE and Let’s Talk Science.

3. ExploreEngineering.ca:
• We currently have two websites: “Explore Engineering” is designed to appeal to young children (5-10 years old) and “EngScape” is designed to appeal to post-secondary, EIT, newcomers, and under-employed professionals. These websites are dated, do not promote two-way conversations, and have not been heavily promoted.
• We currently do little to no work with the regulators to identify and share teacher resources, STEM toolkits, mentorship, and coaching and volunteer opportunities through our website.
• Outside of NEM, there is nothing driving traffic to either of our websites. The information on these sites is limited and static providing no reason for visitors to return to the site.

RECOMMENDATIONS ON NEW AND EXISTING OUTREACH EFFORTS

Based on the requirements of the outreach sub-strategy, Engineers Canada has reviewed all of its current outreach efforts and assessed their relevance and effectiveness at achieving the desired state.

Below are the current, expanded, and new outreach efforts that Engineers Canada will execute to achieve the intended outcomes.

The following table summarizes the outcomes of the development of the sub-strategy.
## FOSTERING RECOGNITION OF THE VALUE OF THE PROFESSION TO SOCIETY

<table>
<thead>
<tr>
<th>Activity/Program</th>
<th>Program Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Engagement Working Group</td>
<td>New</td>
<td>To support ongoing communication and coordination of outreach initiatives, campaigns, and programs among the regulators and national programs. This group will meet and share resources electronically.</td>
</tr>
<tr>
<td>National Engineering Month</td>
<td>Expand</td>
<td>Transform into national campaign.</td>
</tr>
<tr>
<td>Joint thought leadership</td>
<td>Expand</td>
<td>Expand on existing relationships with other associations.</td>
</tr>
<tr>
<td>Global Day of the Engineer (DiscoverE)</td>
<td>Maintain</td>
<td>No participation outside of promotion in newsletter</td>
</tr>
<tr>
<td>Engineers Week (DiscoverE)</td>
<td>Maintain</td>
<td>No participation outside of promotion in newsletter</td>
</tr>
<tr>
<td>EngScape Website</td>
<td>Discontinue</td>
<td>Move relevant content to the ExploreEngineering section of our website and discontinue site.</td>
</tr>
</tbody>
</table>

## SPARK INTEREST IN THE NEXT GENERATION OF ENGINEERING PROFESSIONALS

<table>
<thead>
<tr>
<th>Activity/Program</th>
<th>Program Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scouts Canada</td>
<td>New</td>
<td>Solidify how we go forward with Scouts.</td>
</tr>
<tr>
<td>Benchmark report</td>
<td>New</td>
<td>Education system in Canada.</td>
</tr>
<tr>
<td>Crest Program</td>
<td>Expand</td>
<td>Girl Guides.</td>
</tr>
<tr>
<td>CFES: Engineering Students Sponsorship</td>
<td>Maintain</td>
<td>Continue to fund and support.</td>
</tr>
<tr>
<td>Future City Program</td>
<td>Reduce</td>
<td>In 2020, reduce administrative and financial support of program by 75 per cent and reassess utility of the program.</td>
</tr>
<tr>
<td>NSERC Science Odyssey</td>
<td>Reduce</td>
<td>No participation outside of promotion in newsletter.</td>
</tr>
<tr>
<td>Go Eng Girl</td>
<td>Transfer</td>
<td>Move to be managed as part of the SP3 portfolio.</td>
</tr>
</tbody>
</table>
FOSTERING RECOGNITION OF THE VALUE OF THE PROFESSION TO SOCIETY

Goals:

Engineers Canada will:

1. Strengthen its relationship with other professional associations, working with them to identify opportunities for joint thought leadership on issues that Canadians care deeply about and identify where engineers can be positively represented for their unique contributions. (Current)
2. Ensure the efficient sharing of ideas, best practices, and coordination between and among the regulators in their outreach and engagement activities. (Expanded)
3. Lead and coordinate National Engineering Month, an annual joint campaign throughout the month of March that engages all the regulators and fosters recognition of the value of the profession to society and sparks an interest in the next generation of engineering professionals. (Expanded)

Tactics:

To achieve these goals, Engineers Canada’s Outreach Manager will:

1. Identify professional associations that have an influence over the engineering profession and organize a meeting with them to discuss how we can strategically work together on joint thought leadership to communicate our unique value to society. Examples may include: how we can work together to drive conversations around closing the gender gap in STEM, the true role of an engineering professional in relation to the most pressing issues affecting Canadians and the value of self-regulation and licensure in protecting the public.

2. Create a “Strategic Engagement Working Group” with a focus on outreach and engagement to share ideas, best practices, and better leverage each other’s resources through the coordination and communication of outreach initiatives, campaigns, and programs. This group will meet and share resources electronically.
   • Through this group, explore how we work together in developing key messaging about the profession.
   • Facilitate a working group made up of regulator staff to identify the value proposition for youth outreach (K-12).
   • Explore the development of a collaboration accord.
• Creation of an evaluation matrix to determine if and when programs and initiatives should be managed by Engineers Canada and scaled across the country.

3. Transition National Engineering Month into a joint national campaign between Engineers Canada and the regulators.
   • Re-branding of National Engineering Month to appeal to broader audience.
   • Promotion of two hashtags #NEM2020 & #NEGM2020.
   • Incorporation of a user-generated social media campaign.
   • Creation of NEM toolkit.
   • Creation and management of a joint outreach list.
   • Work with the regulators to identify a common theme and tie in all local events and activities into this theme.
   • Re-design the national website to better promote local events.
   • Establish benchmarks and metrics to evaluate reach and impact of campaign.

SPARK INTEREST IN THE NEXT GENERATION OF ENGINEERING PROFESSIONALS

Goals:

Engineers Canada will:

1. Create a benchmark report that captures our collective efforts within the school system and identify who, what, and how other national STEM organizations are working with schools and school boards identifying best practices and potential strategic partners. (New)
2. Increase awareness of youth and their parents (or other caregivers) of the many opportunities within the engineering profession and the value that engineering brings to society, making it a preferred career choice for boys and girls between the ages of 11 and 17. (Expanded)
3. Change the narrative and purpose of the Explore Engineering website so that it appeals to a broader audience and helps to drive traffic and engagement in local events organized by the provincial and territorial regulators. (Current)

Tactics:

To achieve this goal, Engineers Canada’s Outreach Manager will:

1. Map out the work currently being done by our regulators and large STEM organizations within the school system.
2. Expand our relationship with Girl Guides and Scouts Canada creating a process that connects regulator volunteers and activities with local Guide and Scout units. We will also work with them to better track and monitor the impact of their programming both on youth attitudes towards engineering and the value of this volunteer opportunity for professional engineers.

3. Evaluate our relationship with the Canadian Federation of Engineering Students and the Future City Program based on the new evaluation framework established for measuring the value of Engineers Canada’s outreach and engagement programs.

4. Re-design the Explore Engineering website so that it appeals to a broader audience and discontinue the EngScape website blending the content of both sites. Information currently part of EngScape that will be discontinued includes the national job board, salary data, and other provincial job-related statistics.

**RESOURCE REQUIREMENTS**

The challenge and opportunity within this sub-strategy is the mandate to leverage existing opportunities, not embarking on cost-prohibitive endeavors, focusing on joint ventures, and not developing or wholly sustaining such programs internally. This will require the Outreach Manager to build and nurture strategic relationships requiring an investment in time, energy, and skills to establish trust and credibility.

**Primary resources**

Engineers Canada’s approach to outreach and engagement must be established around a sustainable operating model that leverages the vast programming and expertise of our regulators. The creation of a “Strategic Engagement Working Group that will support ongoing collaboration and joint programming between Engineers Canada and the regulators will play an imperative role in our outreach efforts and impact.

**Secondary resources**

Engineers Canada organizes an annual national campaign, National Engineering Month, that is designed to engage a broad spectrum of organizations, academic institutions, businesses, politicians, professional engineers, EITs, youth, and youth-focused organizations in celebrating and sparking an interest in engineering.

**Engineers Canada staff:**

Engineers Canada’s outreach activities rely on support from many staff at Engineers Canada’s national office. We work with our communications team to provide invaluable support in
reviewing key messaging, designing promotional tools, creating communications regarding outreach activities, and translating content. We also work closely with our Diversity, Equity, and Inclusion Manager and Public Affairs Manager.

Creating an outreach and engagement strategy that aligns with our regulators’ goals is also of critical importance to Engineers Canada’s success. Consistent and coordinated messaging will ensure that more government decision-makers, professional associations, NGOs, and professional educators are aware of the value that engineers bring to society reinforcing our efforts to diversify the profession and sparking an interest in the next generation.

Other partners:

Stakeholder engagement, in the context of outreach, is the process by which Engineers Canada works with other groups and organizations to foster recognition of the value of the engineering profession to society and/or spark an interest in the next generation of engineering professionals. Stakeholder relations is a tool used by Engineers Canada to combine resources and competencies with other groups to better increase our reach, influence, and impact.

EVALUATION PLAN

To assess the effectiveness of Engineers Canada’s outreach plan and to measure whether objectives have been met, regular program evaluation will be conducted.

Below are the specific measures for each intended outcome of the strategic plan.

1) Leverage existing opportunities to foster recognition of the value and contribution of the profession without embarking on cost-prohibitive endeavors.

Measure:
- Strength of our relationships with other professional associations. We will measure this by tracking their behavior. How many times do they promote our work/events? How many events, reports, or initiatives have we collaborated on? How often do we meet to discuss mutual problems and explore ways to support one another?
- Efficient sharing of ideas, best practices, and coordination between and amongst the regulators in their outreach and engagement activities. This will be measured through a bi-annual survey of the identified outreach regulator representatives, and the number of interactions (shared ideas, resources, joint projects, and number of meetings).
• National Engineering Month, an annual joint campaign that engages all the regulators resulting in greater reach and NEM brand recognition. In 2020 we will identify key performance indicators and establish national benchmarks for measuring success.
• Creation of the “Strategic Engagement Working Group” in support of our outreach and engagement strategy.

2) Leverage partnerships and joint ventures that can spark interest in the next generation of engineering professionals without developing or wholly sustaining such programs internally.

Measure:
• Creation and distribution of benchmark report.
• Number of Girl Guide and Scout units that are directly engaging with our regulators through the crest program.
• Change in attitude and increased awareness of participants in the crest program about engineering. This will be measured through a pre- and post-survey of participants and will be executed in collaboration with Girl Guides Canada and Scouts Canada.
• Number of regulators and organizations that are directly engaged in Future City.
• Number of participants in the Future City program (youth and P.Eng, volunteers).
• Creation of new outreach program evaluation framework.

CONCLUSION
This sub-strategy brings the practice of outreach into alignment with Engineers Canada’s strategic plan and key outcomes, while also creating a path towards achieving greater success. It outlines the key deliverables and measures that need to be achieved to succeed in our outreach goals. Finally, it touches upon all the key components listed in OP 8 as per Engineers Canada’s 2019-2021 Strategic Plan.

Given that Engineers Canada is uniquely positioned to coordinate outreach activities services on behalf of and in collaboration with the regulators, this sub-strategy will ensure that our clients are served to the best of our abilities.

APPENDIX
Confidential outreach and engagement benchmarking report - located on the members only area of the website (password required for access) at the following URL: https://engineerscanada.ca/system/files/Att-4.5b-OP8-Benchmark-Report-Final-en.pdf
**BRIEFING NOTE: For decision**

### Operational imperative 9 (OP9) - Sub-strategy on Indigenous access to engineering

<table>
<thead>
<tr>
<th>Purpose:</th>
<th>Approval of actions for the CEAB related to the Operational imperative 9 sub-strategy regarding Indigenous peoples’ access to engineering</th>
</tr>
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<tbody>
<tr>
<td>Link to the strategic plan</td>
<td>Operational imperative 9: Promote diversity and inclusion in the profession that reflects Canadian society</td>
</tr>
<tr>
<td>Motions (s) to consider:</td>
<td>THAT the CEAB investigate, with appropriate consultation, the potential for the accreditation process to incorporate truth and reconciliation efforts and make recommendations to the Engineers Canada Board, on recommendation of the CEO.</td>
</tr>
<tr>
<td>Vote required to pass:</td>
<td>Simple majority</td>
</tr>
<tr>
<td>Transparency:</td>
<td>Open session</td>
</tr>
</tbody>
</table>
| Prepared by: | Cassandra Polyzou, Manager, Diversity, Equity and Inclusion  
Jeanette Southwood, Vice President, Corporate Affairs and Strategic Partnerships |
| Presented by: | Gerard McDonald, Chief Executive Officer |

### Background
- At the December 9, 2019 Board meeting, the Board approved a new sub-strategy for Operational imperative 9: to promote diversity and inclusion in the profession that reflects Canadian society and incorporates truth and reconciliation efforts.
- During the meeting there was discussion on one element of the proposed strategy, as to how the Board should engage the Accreditation Board, and the accreditation process, in this work.
- The Board had previously received a letter from the Engineering Deans Canada (EDC) leadership (Chair Jim Nicell, Past-chair Ishwar Puri, Vice-chair Kevin Deluzio, and Deans Liaison Committee Chair James Olson) on this topic on December 4, 2019. Given a desire for more information and follow up with EDC, a decision on this element was deferred to this meeting.
- Engineers Canada’s relationship with EDC is further defined in policy 7.3 of the policy manual (current page 91/112). This policy is under review by the Governance Committee, and proposed changes, including the name amendment, will be presented to the Board in May. As per this current policy, the EDC is invited to provide a report to the Board each May, in addition to ongoing collaboration to ensure that EDC viewpoints are considered in the delivery of programs and services which impact EDC.

### Proposed action/recommendation
- As a result of the concerns expressed by EDC, the motion regarding the involvement of the CEAB has been softened to be less directive and more investigative and consultative.
- It is proposed the Board approve the motion so that the Accreditation Board can investigate options and consult more broadly with the higher education institutions (HEIs).

### Financial implications
- In order to address this motion, the Accreditation Board will need to dedicate volunteer and staff resources. In addition, funds may be required for consultation, if it cannot be accomplished through existing meetings or virtually.
Consultation

- A meeting has been scheduled for February 7 between representatives from Engineers Canada and Engineering Deans of Canada to initiate consultation on this matter. A verbal update will be provided at the meeting.
- The following individuals have been invited to participate:
  - Engineering Deans Canada representatives (Jim Nicell, Ishwar Puri, Kevin Deluzio, Patrik Doucet, and James Olson)
  - Engineers Canada President, Past-President, and President-Elect (David Lynch, Annette Bergeron, and Jean Boudreau)
  - Engineers Canada CEO (Gerard McDonald), Executive VP (Stephanie Price), CEAB Secretary (Mya Warken)
  - CEAB Chair, Past-Chair, and Vice-Chair (Luigi Benedicenti, Wayne MacQuarrie, and Bob Dony) and incoming Vice-Chair (Pierre Lafleur)
  - Engineers Canada director appointees on the CEAB (Jeff Card and Louis Champagne)

Next steps (if motion approved)

- The Accreditation Board will add this work to their work plan.

Appendices

- OP9 sub-strategy: Indigenous access to engineering
Operational Imperative 9: Indigenous access to engineering
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EXECUTIVE SUMMARY

In May 2018, Engineers Canada’s Board of Directors approved a new Strategic Plan, which highlighted, in Operation Imperative 9 (OP9), the submission of an analysis, rationale, and recommended sub-strategy to the Board on how best to promote diversity and inclusion in the profession that reflects Canadian society. The sub-strategy was to be bounded by the Board’s diversity and inclusion policy and to address bridging and/or support programs that facilitate Indigenous peoples entering and graduating from undergraduate engineering programs in Canada.

Engineers Canada’s OP9 is intended to demonstrate progress towards diversity and inclusion targets through consistent effort and innovative, highly-leveraged programs that increase the number of women and Indigenous peoples entering, thriving, and remaining in the profession. The development of the OP9 sub-strategy for promoting Indigenous people’s participation in engineering, as described in the strategic plan, will specifically address bridging and/or support programs that facilitate Indigenous peoples entering and graduating from undergraduate engineering programs in Canada.

The intended outcomes of the OP9 sub-initiative: Indigenous access to engineering, are:

- Define achievable objectives for increased diversity and inclusion regarding Indigenous peoples in engineering within the guidelines set by the Board’s diversity and inclusion policy.
- Review all current related efforts regarding Indigenous peoples in engineering and assess their relevance and effectiveness at achieving the objectives.
- Make recommendations on the new or existing initiatives regarding Indigenous peoples in engineering most likely to be effective at achieving the recommended objectives within available resources.
- Be ready to implement within 90 days of Board approval.

INTRODUCTION

Reconciliation in engineering, as in any profession, is imperative for the sustainability of the profession and for sparking a cultural shift necessary to respond to Indigenous perspectives and needs. Although the ethical imperative to improve Indigenous peoples’ participation in engineering may be clear, there are many long-entrenched barriers impeding the access of Indigenous youth to engineering education and to improvements to the processes within the profession that impact Indigenous communities.

Diversity is a key asset in innovation; however, the benefits of improving representation of Indigenous peoples and Indigenous ways of knowing in engineering are not limited to innovation. They include the creation of a positive voice for the profession in Indigenous communities, the support for Indigenous engineering role models and non-Indigenous allies, and more resilient projects. The engineering profession in Canada can better understand, and therefore protect the public interest, if it is representative of the demographics that it serves. This means leveraging the best talent from all parts of society, which adds value to employers, increases the production of creative solutions, and provides a deeper understanding of clients’ needs. A sub-strategy on Indigenous access to engineering and the pathway to reconciliation are part of the vision for a more diverse and inclusive engineering profession.
It is a long journey and one that will take many hands. Engineers Canada is committed to working with key partners to attract and retain Indigenous peoples in engineering, as well as to address the recommended calls to action as they relate to the engineering profession.

Engineers Canada’s mandate under the OP9 sub-initiative: Indigenous access to engineering, is a continuation of several years of work by Engineers Canada’s Indigenous Peoples’ Participation in Engineering (IPPiE) working group. A detailed outline of the current state and the work of the IPPiE working group can be found in the OP9 environmental scan (APPENDIX A).

**DESIRED STATE**

Engineers Canada’s OP9 is intended to demonstrate progress towards diversity and inclusion targets through consistent effort and innovative, highly leveraged programs that increase the number of women and Indigenous Peoples entering, thriving, and remaining in the profession.

**CUSTOMER DEFINITION**

**Regulators**
The provincial and territorial engineering regulators are the main customers of Engineers Canada. They regulate the engineering profession and license engineers in Canada.

Engineers Canada exists to support the engineering regulators and, therefore, the Indigenous access to engineering sub-strategy exists to support this group. Regulators are comprised of staff and/or volunteers.

**STAKEHOLDERS**

**Indigenous engineers**
In order to effectively address the needs of Indigenous engineering students and professionals, it is vital that Indigenous engineers are involved throughout the process of developing the OP9 sub-strategy, as well as during the implementation through focus groups and ad hoc consultation.

**GAP ANALYSIS**
The OP9 environmental scan (APPENDIX A) includes a detailed analysis of the current state and the gaps.

**GOALS AND TACTICS**
The following sub-strategy is organized into two key elements: Truth and Reconciliation.
TRUTH

A sub-strategy on Indigenous access to engineering and the pathway to reconciliation must begin by acknowledging the truth of injustices and systemic discrimination against Indigenous Peoples in Canada. This includes acknowledging the detrimental impacts that the engineering profession has had on Indigenous communities through discriminatory practices and disregard for Indigenous rights, traditions, and knowledge; and where decision-making that directly impacts Indigenous communities has ignored the rights of Indigenous peoples to be stewards of their own land; where there has been a lack of free, prior, and informed consent from Indigenous communities with regards to natural resource projects. We cannot go back to ignoring Indigenous communities. Instead we need to move forward to acknowledge the harm done in the past and present, as well as the legal and economic power that Indigenous Peoples hold in Canada.

1. **Engineers Canada supports engagement with Indigenous histories, increasing awareness and cultural competency**

**Goal:** Engineers Canada provides Indigenous training for staff and Board.

**Tactics:**

- Engineers Canada develops an internal diversity strategy, including increasing staff awareness on Indigenous issues.
- Engineers Canada explores hiring an Indigenous company to train Engineers Canada’s staff on Indigenous awareness by 2021.
- Engineers Canada increases awareness of Indigenous issues with the Board through Indigenous awareness training by 2021.
- Engineers Canada explores development of Indigenous awareness training for use by regulators.
- Engineers Canada builds on the capacity of regulators to address the Truth and Reconciliation Commission (TRC) Calls to Action
- Engineers Canada Board directs the CEQB to develop a practice guideline on how to consult and engage Indigenous communities.

RECONCILIATION

The pathway to reconciliation will involve creating and maintaining long-term relationships with Indigenous organizations and supporting Indigenous engineers and students.

2. **Engineers Canada supports Indigenous engineers and engineering students**

**Goal:** Regulators are made aware of .caISES and CIAC
Tactics:

Engineers Canada continues to participate as a voting member on the Canadian Indigenous Advisory Council (CIAC) to the American Indian Science and Engineering Society (AISES).

Engineers Canada sponsors annual .caISES gathering and promotes the gathering to regulators.

Engineers Canada addresses bridging and/or support programs that facilitate Indigenous peoples entering and graduating from undergraduate engineering programs by facilitating teleconference meetings of the Indigenous Student Services in Engineering (ISSE) working group.

Engineers Canada continues to advocate for federal funding of Indigenous engineering access programs.

3. Engineers Canada explores collection of data on Indigenous students and professionals

Goal: Engineers Canada improves the reporting of Indigenous engineers and engineering students

Tactic:

Engineers Canada explores reporting on the number of Indigenous engineers with regulator input.

4. Engineers Canada develops a framework for engaging with Indigenous organizations

Goal: Engineers Canada opens dialogues with Indigenous organizations in 2020

Tactic: Engineers Canada creates an Indigenous engagement plan, with advice from Indigenous engineers, on building relationships with Indigenous organizations and Indigenous engineers.

RESOURCE REQUIREMENTS:

The Manager, Diversity, Equity, and Inclusion, will support the implementation of the OP9 sub-strategy. A large part of the work includes building relationships and facilitating connections between the regulators and groups and individuals working on this issue. It is important to maintain a high level of trust and credibility with Indigenous engineers and organizations, as well as with regulators. This requires the manager to stay up-to-date on relevant research and news within the engineering profession, as well as create and maintain contact with researchers studying the issue of reconciliation in engineering.
The Vice President, Corporate Affairs and Strategic Partnerships, will support and advise on the implementation of OP9.

The Manager, Outreach, will be involved where OP9 intersects with Operational Imperative 8 (outreach sub-strategy).

In addition to the primary resources who are tasked with delivering the sub-strategy, there are other resources that will support the work outlined above, including administrative and communications support. External resources will be needed to provide training on Indigenous awareness, and sponsorship for CIAC and .caISES will be included in this sub-strategy. Occasional travel to present and participate in conferences and workshops will also be required.

**RISKS AND MITIGATION STRATEGIES:**

There is a reputational risk in failing to act to address the TRC’s Calls to Action and to increase the representation of Indigenous Peoples in engineering. As the national engineering organization in Canada, Engineers Canada is looked to by engineers, media, and institutions to address the issue of reconciliation.

The sub-strategy integrates the recommendations from the Indigenous Peoples’ Participation in Engineering working group. A lack of action on these recommendations, which were developed over three years, would call into question the character of Engineers Canada. Over the past three years, Engineers Canada has also developed relationships with many Indigenous engineers in the creation of CIAC, which need to be maintained and supported.

**EVALUATION PLAN:**

To assess the effectiveness of Engineers Canada’s OP9 sub-strategy, regular evaluations will be conducted.

A survey for participants of the Indigenous training will be conducted and a report created to summarize the success of the training.

All regulators will be made aware of CIAC and .caISES, and their attendance at the .caISES events will be encouraged.

The National Membership Report in 2021 will include a section on Indigenous engineers.
APPENDIX

APPENDIX A- OP9 Environmental Scan English
BRIEFING NOTE: For decision

Appointment of secretary to the Board

<table>
<thead>
<tr>
<th>Purpose:</th>
<th>To appoint a staff person other than the CEO as Secretary to the Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link to the strategic plan</td>
<td>Secretariat Services is considered one of Engineers Canada’s Internal Enablers</td>
</tr>
</tbody>
</table>
| Motions (s)to consider:  | THAT the Board, on recommendation of the HR Committee: 
|                           | a) remove Stephanie Price as an officer of Engineers Canada, with thanks, and 
|                           | b) appoint Evelyn Spence, Legal Counsel, as Secretary to the Board, 
|                           | the change in office to take effect March 1, 2020. |
| Vote required to pass:    | Two-thirds majority 
|                           | As per Bylaw 6.2 “Any officer may be removed at any time by a two-thirds 
|                           | majority resolution of the Board.” |
| Transparency:             | Open session                                                             |
| Prepared by:              | Gerard McDonald, Chief Executive Officer                                 |
| Presented by:             | David Lynch, Chair of the HR Committee                                   |

Background

- The Engineers Canada Bylaw defines the secretary as “an office held by the Chief Executive Officer of Engineers Canada or such other person as appointed by the Board”.

- As part of a review of the duties performed by the senior staff at Engineers Canada, it is felt that the role of secretary to the Board would best be filled by our incumbent legal counsel.

- Appointment by the Board is required to endorse this assignment.

- Section 6 of the Bylaw makes reference to the secretary and sets requirements for the individual, and rules for removal from the position. Extract from the Bylaw follows:

  **6. OFFICERS**

  **6.1.** The officers shall be the President, the President-elect, the Past-president, the Chief Executive Officer, the Secretary and such other officers as the Board may from time to time by resolution determine.

  **6.2.** Any officer may be removed at any time by a two-thirds majority resolution of the Board.

- Although the Bylaw identifies the CEO of Engineers Canada as having the overall responsibility for the role of Secretary to the Board, it is felt that having the CEO assume this role would not be in the best interests of the organization. The CEO advises the Board in respect of the operation and management of Engineers Canada’s business and may provide advice and opinion on matters placed before the Board. In addition, the CEO is a direct employee of the Board.

- The Secretary should be an impartial resource to the Board responsible for the documentation of meeting deliberations, the maintenance of corporate records, and Board compliance with provisions in the governing documents and applicable law.

Proposed action/recommendation

- Approval of current Legal Counsel, Evelyn Spence, as Secretary to the Board.
Other options considered:

- The CEO could act as the secretary, but this has the potential to conflict with their role advising the Board on management issues.
- The executive vice-president, regulatory affairs could continue as the secretary, but the legal counsel brings in-depth knowledge of corporate and employment law, which is an asset for this position.
- Further, the executive vice-president may also be called upon to advise the Board on management issues, which has the potential to conflict with the secretary role.
- There has been some discussion as to whether the secretary should report directly to the Board or to the CEO. Although the secretary must always be appointed by the Board, who the secretary reports to varies significantly from organization to organization both in Canada and worldwide. The Canada Not-For-Profit Corporations Act is silent on the matter, as are our bylaws, leaving this issue at the Board’s discretion.
- If the secretary is also the legal counsel, as in our case, she usually reports directly to the CEO. However, she would also have accountabilities to the Board and the chair of the Board in her capacity as secretary. “Regardless of to whom the position reports, the Secretary is often in a unique position of advising the board, the CEO and management—and, therefore must build a trusting relationship with each contingent. The Secretary’s role is often one of diplomat and mediator and requires confidentiality, objectivity and sensitivity.”

Risks

- None identified

Financial implications

- None

Benefits

- Given the increasingly complex nature of business, having the legal counsel serve as secretary should contribute to governance effectiveness by being able to understand, distill, and communicate on legal and governance issues facing the organization.

Consultation

- The CEO raised this issue with the HR Committee and was consulted throughout the process of developing this item.
- Both the current secretary, Stephanie Price, and the proposed secretary, Evelyn Spence, have been consulted and are supportive of this change in responsibilities.

Next steps (if motion approved)

- Evelyn Spence to assume the role of Secretary.
- Stephanie Price will continue as staff support for the Governance Committee until the end of the current mandate (May 2020) at which time Evelyn Spence will assume this responsibility.

Appendices

- CV of Evelyn Spence

---

1 The Corporate Secretary: An Overview of Duties and Responsibilities, from the Society of Corporate Secretaries & Governance Professionals. Accessed on December 10, 2019
EVELYN SPENCE

EXPERIENCED IN-HOUSE LEGAL COUNSEL

613-292-1884
evelynjuliaspence@gmail.com
Ottawa, ON

PROFESSIONAL PROFILE

Results-driven legal professional with experience working in various regulated industries. Strong focus on delivering high quality work and providing well-reasoned, strategic advice to customers across all business lines. Known for high energy, perseverance, and commitment to organizational values and goals.

EXPERIENCE

Legal Counsel
Engineers Canada / Ottawa / Jan 2015 to Present

As the organization’s sole in-house lawyer, key accountabilities include: protecting Engineers Canada’s official marks and trademarks through management and oversight of IP litigation and opposition proceedings; drafting, reviewing and negotiating complex agreements, including licence agreements, website development and technology contracts; developing and reviewing core policies and procedures; and provision of legal advice on all issues impacting the business, including in the areas of privacy, regulatory compliance, employment and corporate law. Work collaboratively with internal stakeholders, including other members of the Senior Leadership Team, to advance organization’s strategic direction and interests.

Legal Counsel
Retirement Homes Regulatory Authority (RHRA) / Toronto / Apr 2011 – Jan 2015

As one of the first 5 employees hired to head up a newly established regulatory body, involved in all aspects of business formation, including: engaging in consultations with government and sector representatives; development of the licensing, compliance and enforcement regimes; and representing the regulator in appeals before the Licence Appeal Tribunal (LAT). Key achievements included:
• Securing precedent-setting successful judgments in the RHRA’s first oppositions at LAT;
• Managing negotiations between the RHRA and retirement home operators, and settling disputes, amiably and expeditiously, in more than 90% of cases;
• Drafting a “Plain-Language” guide to help retirement home operators, residents and their family members to understand their rights and obligations under the new regulatory framework.

Associate Lawyer (Commercial Litigation) / Articling Student / Summer Law Student

Employing evidence-based research and analysis, advised clients regarding litigation strategies and tactics, taking into consideration client resources, risk exposures and reputational issues. Made presentations of fact and argument in proceedings at the Small Claims Court and at the Superior Court level, and built relationships of trust and confidence with partners, colleagues and clients.

EDUCATION

LL.B. / Bachelor of Laws
Dalhousie Law School
2006-2009

B.A. Hons. / Bachelor of Arts
Queen’s University
2001-2005

BAR ADMISSION

Ontario, June 2010

SKILLS

Dispute Resolution
Decision-making
Leadership
Critical Thinking
Tact and diplomacy

FRENCH LANGUAGE

Advanced Comprehension (reading and oral)
Intermediate Proficiency (writing and speaking)
DISPUTE RESOLUTION EXPERIENCE (CASUAL)

Member (Part-Time)
*Licence Appeal Tribunal / Ontario / Oct 2016 – Present*

Responsible for resolving disagreements through numerous methods of alternative dispute resolution; conducting appeal hearings in a fair, impartial and efficient way; and making and writing decisions on a wide variety of matters including, among other things: regulation of different occupations (real estate brokers, motor vehicle salespersons, travel agents, etc.) and businesses (retirement homes, funeral homes, etc.).

Complaints Review Councillor
*Association of Professional Engineers Ontario / Toronto / Dec 2015 – May 2018*

Panel Member, Discipline Committee
*Association of Professional Engineers Ontario / Toronto / Feb 2013 – Mar 2016*

BOARD / COMMITTEE EXPERIENCE

Director, Corporate Secretary and Chair, Governance Committee
*Volunteer Ottawa / Ottawa / May 2018 – Present*

Member, Elections Committee
*Immigration Consultants of Canada Regulatory Council / Canada / 2017, 2018 and 2019 election cycles*

Lawyer Member, Research Ethics Board
*Baycrest Hospital / Toronto / Oct 2010 – Nov 2013*

MEMBERSHIPS AND AFFILIATIONS

Women Get on Board / Jan 2018 – Present

Canadian Bar Association & Ontario Bar Association / Aug 2010 – Present

CONTINUING PROFESSIONAL DEVELOPMENT

Business Leadership Program for In-House Counsel
*Rotman School of Management & Canadian Corporate Counsel Association / Toronto / Jun 2019 – Apr 2020*

Certificate in Human Resources Law
*Osgoode Professional Development / Toronto / Mar – Apr 2018*

Governance Essentials for the Corporate Secretary
*Governance Professionals of Canada / Calgary / Jun 2017*

Professional Certificate in Leadership and Collaboration
*Sprott School of Business / Ottawa / Nov 2015 – Jun 2016*

PUBLICATIONS

Evelyn Spence, “Qualified Privilege within the Regulatory Framework: *Blumas v. Institute of Chartered Accountants (Ontario)*, in *OBA Health Matters*, Vol. 21, No. 3 (June 2012)

Various Ontario Licence Appeal Tribunal case decisions, available via CanLII, and Association of Professional Engineers Ontario (PEO) Discipline Committee case decisions, available through PEO’s online Gazette.

INTERESTS

Lifelong learning, community service, travel, physical fitness, and keeping up with 3 busy children.
BRIEFING NOTE: For decision

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<tr>
<th>Board, director, and chair assessment process</th>
<th>4.8</th>
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</thead>
<tbody>
<tr>
<td>Purpose:</td>
<td>To approve the structure and content of the surveys for Board, director, and chair assessments to fulfill existing policies and to approve a new policy to specifically support chair assessment.</td>
</tr>
<tr>
<td>Link to the strategic plan</td>
<td>Board responsibility 1: Hold itself, its directors, and its direct reports accountable. Board responsibility 4: Ensure the development and periodic review of Board policies. Board responsibility 6: Provide orientation of new directors, and continuing development of directors and others who work closely with the Board.</td>
</tr>
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<td>Motion(s) to consider:</td>
<td>• THAT the Board approve the new policy 6.2 Board, committee, and task force chair assessment, on recommendation of the HR Committee. • THAT the Board confirms the structure and content of the following combined surveys, on recommendation of the HR Committee:   - Board assessment   - Director self-assessment   - Director peer-assessment   - Chair assessment</td>
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<tr>
<td>Vote required to pass:</td>
<td>Two-thirds majority</td>
</tr>
<tr>
<td>Transparency:</td>
<td>Open session</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Sylvie Francoeur, HR Director</td>
</tr>
<tr>
<td>Presented by:</td>
<td>David Lynch, Chair, HR Committee, President</td>
</tr>
</tbody>
</table>

Problem/issue definition

- This is the first year that the Engineers Canada Board will be implementing the annual assessments for Board, directors, and chairs.
- The Board has established policies 4.12 Board self-assessment and 4.13 Individual director self-assessment to ensure that opportunities exist to evaluate and discuss the Board and individual director’s performance and contributions. To support these assessments, the following policies are in place:
  - Board responsibilities (4.1)
  - Director responsibilities (4.2) and competency profile (4.8)
  - Chair responsibilities and competencies (currently listed in 6.1 Board committees and task forces)
- The assessment surveys, as developed and provided as appendices, have been created in accordance with these policies.
- Through the creation of the surveys, a gap in policy to support chair assessments was realized, which resulted in draft policy 6.2 Board, committee, and task force chair assessment.
Proposed action/recommendation
• That the surveys and draft policy be reviewed and approved for implementation.

Other options considered:
• None

Risks
• Not implementing the assessments for directors, chairs, and Board would put directors and the organization at risk in terms of compliance with policies and the strategic plan

Financial implications
• None

Benefits
• Measuring the actions of the Board, directors, and chairs will have the following benefits:
  • increased effectiveness of the Board as a governing body
  • opportunity for the Board members to reflect on their contributions, and to receive feedback from their peers
  • opportunity to identify actions that can be taken to increase the value of director contributions
  • Results will inform development opportunities, succession planning, and future role assignment activities
  • The Board will have an accurate and complete awareness of its own performance.

Consultation
• The surveys have been created in accordance with the policy manual.
• The HR Committee has reviewed all surveys and provided feedback.
• The Governance Committee has accepted the HR Committee’s recommendation that the Governance Committee undertake the review of assessment results and development of a report regarding the Board’s performance. This will support their work to recommend Board training related to governance issues.
• The Governance Committee has reviewed the Board performance survey and provided feedback.
• The HR and Governance Committees have reviewed the draft policy 6.2 and provided feedback.

Next steps (if motion approved)
• If the Board approves these motions, staff will launch the surveys and the HR and Governance Committees will review results and develop appropriate reporting, as noted.
• Directors, chairs, and stakeholders (as required) will be asked to complete the various surveys.
• The policy manual will be updated to include the new policy.

Appendices
• Structure and content of the surveys for Board, director, and chair assessments
• Draft policy 6.2 Board, committee, and task force chair assessment
## 6 Engineers Canada Board committees and task forces

### 6.2 Board, committee, and task force chair assessment

<table>
<thead>
<tr>
<th>Date of adoption:</th>
<th>February 26, 2020 (Motion #XXXX)</th>
<th>Review period:</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of latest amendment:</td>
<td>February 26, 2020 (Motion #XXXX)</td>
<td>Date last reviewed:</td>
<td>February 26, 2020</td>
</tr>
</tbody>
</table>

The purpose of chair assessment is to give all Board, committee, and task force members an opportunity to evaluate and discuss their respective chair’s performance from multiple perspectives. The ultimate objectives are greater efficiency in the use of the volunteers’ time. The assessments also serve as an opportunity to support the development of leadership for individuals who have agreed to serve as chairs of:

- Engineers Canada Board
- Canadian Engineering Accreditation Board (CEAB)
- Canadian Engineering Qualifications Board (CEQB)
- Finance, Audit, and Risk Committee
- Governance Committee
- Human Resources Committee
- And any task force established by the Board

The purpose of chair evaluation process is conducted with the goals of:

1. providing chairs with an opportunity to reflect on their contribution as they receive feedback from their peers;
2. informing the president-elect of the strengths, weaknesses, abilities, and desires of current board, committee, and task force chairs to be used for succession planning.

#### 6.2.1 Chair responsibilities

Chairs work closely with Engineers Canada staff and provide leadership to their committees. They are responsible for:

1. Chairing meetings and setting their agenda
2. Reviewing committee minutes and briefing notes
3. Developing, monitoring, and delivering on the work plan, with support from staff
4. Providing updates on the committee’s activities to the Engineers Canada Board
5. Directing committee deliberations that are timely, fair, orderly, thorough, and efficient
6. Addressing issues arising with and between committee members

Additional responsibilities specifically related to the CEAB and CEQB chair roles are listed in policies 6.9 and 6.10 respectively.
6.2.2 Chair competencies

To deliver on these responsibilities, in addition to the competencies established in Policy 4.8, Board Competency Profile, a chair should demonstrate the following skills, knowledge, and abilities:

1. Ability to build consensus
2. Understanding and working within the Engineers Canada governance model
3. Understanding broader strategic context
4. Communications skills and relationship management with key external stakeholders including the CEAB, the CEQB, the regulators, the CEO Group, the officials’ groups and Engineers Canada staff
5. Work ethic, commitment, and ability to meet deadlines

Additional competencies specifically related to the CEAB and CEQB chair roles are listed in policies 6.9 and 6.10 respectively.

6.2.3 Assessment process

The chair assessment process is done via peer-assessments, delivered by electronic survey annually. Chair assessments shall be the responsibility of the HR Committee. The following process will be used:

1. In October, the HR Committee shall prepare draft questionnaires for the chair assessments.
2. The proposed questionnaires will be presented to the Board at the December Board meeting for review and approval.
3. The questionnaires will be distributed after the December meeting and directors and committee members shall complete the questionnaire(s) within two weeks of receipt.
4. All committee members and directors will be asked to peer review any acting chairs that directly impact their work in the given year.
5. Individual results will be tabulated and provided to each individual chair and reviewed by the president-elect.
6. As required, the president-elect may arrange individual meetings or phone conversations with chairs to discuss the results. The agenda for these meetings may include:
   - Discussion of past performance, level of contribution, areas for improvement, and potential supports required by the chair (e.g. training);
   - Identification of the chair’s interests in future Board activities, as well as succession opportunities and suggestions; and
   - An outline of next steps or agreement on an action plan.
7. The president-elect may present the overall implications of the assessments and conversations to the:
   - HR Committee to inform the nomination process for Board committees, and
   - the past-president to inform the nomination process for president-elect.

Notwithstanding the above, discussions between the president-elect and individual chairs are confidential.

Engineers Canada Board Policy Manual
Section 6: Engineers Canada Board committees and task forces
Structure and content of the surveys for Board, director, and chair assessments

Contents
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    Introduction to Board assessment survey ....................................................................................................................... 2
    Measuring responsibilities .................................................................................................................................................... 2
  Director self-assessment ........................................................................................................................................................ 5
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    Introduction to director self-assessment ....................................................................................................................... 5
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    Introduction to director peer-assessment ....................................................................................................................... 9
    Measuring peer director responsibilities ....................................................................................................................... 9
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    Introduction to chair assessment .......................................................................................................................................... 11
    Measuring chair competencies .......................................................................................................................................... 11
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    Providing results: Post chair-assessment discussion .................................................................................................. 12
Board assessment

Background
This assessment is developed using policies 4.1 Board responsibilities and 4.12 Board self-assessment. All Board members are asked to complete the Board assessment annually.

Introduction to Board assessment survey
Assessing Board effectiveness is an important governance responsibility. The purpose of Board self-assessment is to give all Board members an opportunity to evaluate and discuss the Board’s performance with candor and from multiple perspectives. The ultimate objectives are greater efficiency in the use of the Board’s time and increased effectiveness of the Board as a governing body.

How will the survey results be used? The Governance Committee will assume the oversight of the results report and any recommendations that emerge. Your responses will be unattributed, although they may be shared unless you indicate otherwise.

Measuring responsibilities
1. Please measure the Board’s effectiveness with the following responsibilities:

<table>
<thead>
<tr>
<th>Board responsibility (as per policy 4.1 Board responsibilities)</th>
<th>3 - The Board is highly skilled at this</th>
<th>2 - The Board is skilled at this</th>
<th>1 - The Board needs improvement</th>
<th>0 - The Board is not currently doing this</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. The Board shall hold itself, and its direct reports accountable by:</td>
<td></td>
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<tr>
<td>1.1.1. Establishing and using a competency profile for the Board as a whole.</td>
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<tr>
<td>1.1.2. Establishing and using competency profiles for directors.</td>
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<tr>
<td>1.1.3. Establishing and using competency profiles for all committee chairs.</td>
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<tr>
<td>1.1.4. Managing the CEO through the use of competency profiles and performance measurement against the achievement of the operational and strategic plans.</td>
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<tr>
<td>Board responsibility (as per policy 4.1 Board responsibilities)</td>
<td>3 - The Board is highly skilled at this</td>
<td>2 - The Board is skilled at this</td>
<td>1 - The Board needs improvement</td>
<td>0 - The Board is not currently doing this</td>
<td>Comments</td>
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<tr>
<td>1.1.5. Managing the committee chairs through the use of competency profiles and performance measurement against the achievement of the operational and strategic plans.</td>
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<td>1.2. The Board sustains a process to engage with regulators through regular communication that facilitates input, evaluation, and feedback.</td>
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<tr>
<td>1.3. The Board provides ongoing, appropriate strategic direction by developing an annually updated, three-year strategic plan that considers emerging trends and challenges.</td>
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<tr>
<td>1.4. The Board provides ongoing, appropriate strategic direction by ensuring that annual operational plans and budgets are developed that specify the actions and resources necessary to achieve the strategic plan.</td>
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<tr>
<td>1.5. The Board provides ongoing, appropriate strategic direction by ensuring the use and continuous improvement of a process to track, report, and, when necessary, correct, performance against set objectives of the strategic plan.</td>
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<tr>
<td>1.6. The Board provides ongoing, appropriate strategic direction by ensuring the use and continuous improvement of a process to track, report, and, when necessary, correct, performance against set objectives of operational plans.</td>
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<tr>
<td>1.7. The Board ensures the development and periodic review of Board policies.</td>
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<tr>
<td>Board responsibility (as per policy 4.1 Board responsibilities)</td>
<td>3 - The Board is highly skilled at this</td>
<td>2 - The Board is skilled at this</td>
<td>1 - The Board needs improvement</td>
<td>0 - The Board is not currently doing this</td>
<td>Comments</td>
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<td>1.8. The Board ensures the CEO maintains and acts on a robust, effective risk management system which reflects the Board’s risk tolerance level and directs Board-approved mitigation strategies.</td>
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<td>1.9. The Board provides</td>
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<td></td>
<td></td>
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<tr>
<td>1.9.1. Orientation of new members</td>
<td></td>
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<tr>
<td>1.9.2. Continuing Board development for directors and others who work closely with the Board.</td>
<td></td>
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<tr>
<td>1.10. The Board maintains a relationship with key stakeholder organizations:</td>
<td></td>
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<tr>
<td>1.10.1. Board’s relationship with the Canadian Federation of Engineering Students (as outlined in policy 7.2)</td>
<td></td>
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<tr>
<td>1.10.2. Board’s relationship with the Engineering Deans Canada (as outlined in policy 7.3)</td>
<td></td>
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<tr>
<td>1.10.3. Board’s relationship with other organizations. (as outlined in policy 7.4)</td>
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</tr>
</tbody>
</table>

2. To assist in the Governance Committee’s planning of future Board education opportunities, please identify 2 (two) or 3 (three) areas that you would like to personally focus on next year in order to further your personal development as a director and improve your contributions to Board work.

3. Do you have any feedback you would like to share with regards to the Board’s effectiveness? General comments (may be shared with the full Board – but not attributed unless clearly indicated as confidential in your comments below).
Director self-assessment

Background
This assessment is developed using policies 4.2 Directors’ responsibilities; 4.8 Board competency profile; and 4.13 Individual director assessment. All directors are asked to complete the self-assessment annually, with new directors receiving the questionnaire during onboarding.

Introduction to director self-assessment
Engineers Canada's director assessment process is in place to support the development of individual directors, help them enhance their contribution to the Board, and enable them to have a more positive experience as an Engineers Canada director.

How will your responses be used? The individual director evaluation process is conducted with the goals of:

1. Providing Board members with an opportunity to reflect on their contribution, and to receive feedback from their peers;
2. Determining actions that can be taken to increase the value of director contributions; and,
3. Informing the President-elect of the strengths, weaknesses, abilities and desires of individual Board members they will be leading in the coming year.

The tabulated results will also contribute to the creation of competency profiles for directors and Board as a whole, which will be used for nominations, ongoing director development, and populating committees.

Thank you for your responses, which will be used for future planning and will remain unattributed.

1. Please provide your name

Measuring director demographics
The Board supports as much diversity as possible in its makeup and two demographic goals have been set for active monitoring. Your responses to the questions below will assist the Board in measuring its efforts.

2. Are you currently an active engineering practitioner?
   2.1. Yes
   2.2. No
   2.3. Other (please explain)

3. In accordance with its Diversity and inclusion policy, the Board strives to include at least 30 per cent women. Please select the group you represent:
   3.1. Female
   3.2. Male
   3.3. I identify as ______ (field to enter gender)
   3.4. I prefer not to respond
Optional questions: Engineers Canada has an interest in understanding how the Board reflects the Canadian population at large. The following questions do not relate to the competency profile as included in the board policy manual, but they relate directly to Engineers Canada approved strategies:

1. Academic background - I am a graduate of:
   1.1. a Canadian Engineering Accreditation Board (CEAB) accredited program
   1.2. a non-CEAB-accredited engineering program
   1.3. my path was different (details): _____

2. Do you identify as Indigenous (e.g. First Nations (North American Indian), Métis, or Inuit)?
   2.1. Yes
   2.2. No
   2.3. I prefer not to answer

Measuring director competencies

Engineers Canada’s Board competency profile (policy 4.8) reflects the collective skills and experience that are deemed necessary to effectively govern. No single Board member is expected to have all competencies contained in this profile. Collectively, the Board of Directors should have sufficient experience to reflect all competencies.

Tabulated responses to the ratings below will assist the HR Committee in informing future calls to regulators for director nominations and director training.

4. Considering the following desired competencies, rate your experience and knowledge in each area:

<table>
<thead>
<tr>
<th>Director competencies (as per policy 4.8 Board competency profile)</th>
<th>3 - Highly skilled in this area.</th>
<th>2 - Skilled in this area.</th>
<th>1 –Some experience in this area.</th>
<th>0 – No experience in this area.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1. Board governance, experience, and leadership: Experience with board governance, preferably on a regulator Council or other governing body. Possesses a clear understanding of the distinction between the role of the board versus the role of management.</td>
<td></td>
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</tr>
<tr>
<td>4.2. Business/management experience: Experience with sound management and operational business processes and practices. Includes an understanding of topics such as managing complex projects, leveraging information technology, planning and measuring performance, and allocating resources to achieve outcomes.</td>
<td></td>
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<tr>
<td>4.3. Regulator experience: Practical knowledge of the working of provincial/territorial engineering regulators, including such matters such as accreditation, licensure, practice issues, and discipline and enforcement.</td>
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</tr>
</tbody>
</table>
### Director competencies (as per policy 4.8 Board competency profile)

<table>
<thead>
<tr>
<th></th>
<th>3 - Highly skilled in this area.</th>
<th>2 - Skilled in this area.</th>
<th>1 - Some experience in this area.</th>
<th>0 - No experience in this area.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4. Accounting/financial experience: Understanding of accounting or financial management. Includes analyzing and interpreting financial statements, evaluating organizational budgets, and understanding financial reporting and knowledge of auditing practices.</td>
<td></td>
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<tr>
<td>4.5. Strategic planning experience: Experience in developing strategic direction for an organization while considering broad and long-term factors. Understands how an organization must evolve in light of internal and external trends and influences. Able to identify patterns, connections, or barriers to addressing key underlying issues.</td>
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</table>

### Measuring director responsibilities

The following questions outline the responsibilities of each director, as included in policy 4.2. Tabulated responses to the ratings below will assist in informing future calls to regulators for director nominations.

5. Considering each director responsibility, rate your personal understanding/contributions in each area:

<table>
<thead>
<tr>
<th>Director responsibility (as per policy 4.2 Board responsibilities)</th>
<th>3 - I have an in-depth understanding.</th>
<th>2 - I have a strong understanding.</th>
<th>1 - I have a limited understanding</th>
<th>0 - I require more support.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1. How well do you know the business of Engineers Canada?</td>
<td></td>
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<tr>
<td>5.2. Are you able to ensure sufficient time to fulfill your director’s duties and responsibilities?</td>
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<tr>
<td>5.3. How well are you informed of issues affecting, or likely to affect, Engineers Canada and the regulators?</td>
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<tr>
<td>5.4. How well do you contribute to the Board's decision-making process by discussing all matters freely and openly at Board meetings?</td>
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<tr>
<td>5.5. How well do you contribute to the Board's decision-making process by working towards achieving a consensus which respects divergent points of view?</td>
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<tr>
<td>5.6. How well do you contribute to the Board's decision-making process by respecting the rights, responsibilities, and decisions of the regulators?</td>
<td></td>
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</tr>
<tr>
<td>Director responsibility (as per policy 4.2 Board responsibilities)</td>
<td>3 - I have an in-depth understanding.</td>
<td>2 - I have a strong understanding.</td>
<td>1 - I have a limited understanding</td>
<td>0 - I require more support.</td>
<td>Comments</td>
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<tr>
<td>5.7. How well do you contribute to the Board’s decision-making process by participating actively in the work of the Board, including by serving on committees or task forces?</td>
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<tr>
<td>5.8. Do you bring the views, concerns, and decisions of the Board to your regulator?</td>
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<tr>
<td>5.9. Are you seeking your regulator’s input on issues to be discussed by the Board so as to be able to communicate their position to the Board?</td>
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<tr>
<td>5.10. Are you advising your regulator of issues to be presented to the Members?</td>
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<tr>
<td>5.11. How knowledgeable are you of the rules, regulations, policies, and procedures governing the regulator that nominated you?</td>
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<tr>
<td>5.12. How familiar are you with the incorporating documents, Bylaw, policies, and legislation governing Engineers Canada as well as the rules of procedure and proper conduct of meetings?</td>
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<tr>
<td>5.13. Do you participate in Board educational activities that will assist you in carrying out your responsibilities?</td>
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</table>

6. The following information will be used in confidence by the HR Committee to advise the selection of committee members and chairs. Considering your full term as a director of the Board, please indicate the following:

6.1. I would like to work towards the following position(s):
- President-elect (succession eventually leads to HR Committee chair)
- Governance Committee chair
- FAR Committee chair
- There are other ways I would like to contribute (comment box)
- I will continue in my capacity as director for now
- This question is not applicable due to my current term status

6.2. I am interested in participating on the following Board committee(s) for a one-year term:
- Governance
- HR (Human Resources)
- FAR (Finance, Audit, and Risk)
- CEAB (Canadian Engineering Accreditation Board)
- CEQB (Canadian Engineering Qualifications Board)
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Director peer-assessment

Background
This assessment is developed using policies 4.2 directors’ responsibilities and 4.13 Individual director assessment. Directors will be peer-reviewed in year two of their first mandate, and year one of their second mandate; the names included below reflect this.

Introduction to director peer-assessment
The peer-assessment process is performed for directors who are serving their second year of their first term and the first year of their second term. The tabulated results of this survey are provided to each director being evaluated and will be reviewed by the President-elect. To ensure your feedback is managed correctly, please use the appropriate columns when providing open-ended comments. Thank you for taking the time to evaluate your director colleagues.

Measuring peer director responsibilities
The following question outlines the responsibilities required by each director as determined in policy 4.2.

1. Considering each directors’ performance, rate their understanding/contributions in each area using this scale:
   - 3 – demonstrates an in-depth understanding
   - 2 – demonstrates a strong understanding
   - 1 – demonstrates a limited understanding
   - 0 - Not able to measure

<table>
<thead>
<tr>
<th>Director responsibility (as per policy 4.2 Board responsibilities)</th>
<th>Kathy Baig</th>
<th>Christian Bellini</th>
<th>Jeff Card</th>
<th>Carole Lamothe</th>
<th>David Lynch</th>
<th>Dawn Nedohin-Macek</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. Knows the business of Engineers Canada.</td>
<td></td>
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</tr>
<tr>
<td>1.2. Ensures sufficient time to fulfill their Director’s duties and responsibilities?</td>
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</tr>
<tr>
<td>1.3. Is informed of issues affecting, or likely to affect, Engineers Canada and the regulators.</td>
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<tr>
<td>1.4. Contributes to the Board’s decision-making process by discussing all matters freely and openly at Board meetings.</td>
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<td>1.5. Contributes to the Board’s decision-making process by working towards achieving a consensus which respects divergent points of view.</td>
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<td>1.6. Contributes to the Board’s decision-making process by respecting the rights, responsibilities, and decisions of the regulators.</td>
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</tbody>
</table>
### Director responsibility (as per policy 4.2 Board responsibilities)

<table>
<thead>
<tr>
<th>Director responsibility</th>
<th>Kathy Baig</th>
<th>Christian Bellini</th>
<th>Jeff Card</th>
<th>Carole Lamothe</th>
<th>David Lynch</th>
<th>Dawn Nedohin-Macek</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.7. Contributes to the Board's decision-making process by participating actively in the work of the Board, including by serving on committees or task forces.</td>
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<tr>
<td>1.8. Is knowledgeable of the rules, regulations, policies, and procedures governing the regulator that nominated/elected them.</td>
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<tr>
<td>1.9. Is familiar with the incorporating documents, Bylaw, policies, and legislation governing Engineers Canada as well as the rules of procedure and proper conduct of meetings.</td>
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<tr>
<td>1.10. Participates in Board educational activities that will assist them in carrying out their responsibilities.</td>
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</tbody>
</table>

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**Anonymous feedback:** These comments are intended for the president-elect only and will not be shared.

**Open feedback:** These comments will be shared (unattributed) in your colleague's peer assessment report.

---

**Providing results: Post peer-evaluation**

Those being peer evaluated are provided with a report that includes the tabulated responses and open feedback shared through the survey. Each peer-evaluated director has the option of scheduling a discussion with the president-elect to discuss their results. This meeting is optional, and would focus on:

- Training opportunities: areas for improvement and potential supports required by the director
- Involvement opportunities: Identification of the director’s interests in future board contributions and roles, as well as succession opportunities
Chair assessment

Background
The purpose of this exercise is to measure the performance of chairs. This assessment is developed using existing policy “6.1 Board committees and task forces” and draft policy “6.2 Board, committees, and task force chair assessment”. This assessment would take place annually. Due to the 1-year terms for committees, this assessment will provide the individual chairs with feedback on their performance rather than influencing operations of the current committee functionality. Distribution of each assessment would be as follows:

<table>
<thead>
<tr>
<th>Subject of assessment</th>
<th>Survey recipients</th>
<th>Results delivered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Engineering Accreditation Board (CEAB) chair</td>
<td>CEAB</td>
<td>CEAB Board appointee</td>
</tr>
<tr>
<td></td>
<td>CEAB committees’ membership</td>
<td></td>
</tr>
<tr>
<td>Canadian Engineering Qualifications Board (CEQB) chair</td>
<td>CEQB</td>
<td>CEQB Board appointee</td>
</tr>
<tr>
<td></td>
<td>CEQB committees’ membership</td>
<td></td>
</tr>
<tr>
<td>Finance, Audit, and Risk Committee chair</td>
<td>Committee members, board directors (observers)</td>
<td>president-elect</td>
</tr>
<tr>
<td>Governance Committee chair</td>
<td>Committee members, board directors (observers)</td>
<td>president-elect</td>
</tr>
<tr>
<td>Human Resources Committee chair</td>
<td>Committee members, board directors (observers)</td>
<td>president-elect</td>
</tr>
<tr>
<td>Strategic plan task force chair</td>
<td>Committee members, board directors (observers)</td>
<td>president-elect</td>
</tr>
<tr>
<td>EC Canada Board chair</td>
<td>EC Board</td>
<td>president-elect</td>
</tr>
</tbody>
</table>

Introduction to chair assessment
The chairs have specific competencies and responsibilities to meet. The chair assessment process facilitates succession planning for the Board, task forces and committees, in addition to providing personalized feedback for the individuals holding the leadership roles.

Unless otherwise marked as confidential, your responses entered below could be shared, unattributed, with the individual being assessed. Due to the timing of the survey distribution being close to the end of some of the Committee terms, the survey results will be shared for personal feedback and may not influence operations of the current committee structure.

Measuring chair competencies
The following competencies have been identified in policy 6.1 Board and committee taskforces, in addition to the competencies established in policy 4.8, Board competency profile, as competencies that a chair should demonstrate to fulfill their role. Considering their performance as chair, please rate the level of skill, knowledge, and ability demonstrated in the following areas, using this scale:

3 – demonstrates an in-depth understanding  1 – demonstrates a limited understanding
2 – demonstrates a strong understanding       0 - Not able to measure
Chair competency (as per policy 6.1 Board committees and task forces)

<table>
<thead>
<tr>
<th>Chair responsibility (as per policy 6.1 Board committees and task forces)</th>
<th>Chair of Governance</th>
<th>Chair of HR/President</th>
<th>Chair of FAR</th>
<th>Chair of CEAB</th>
<th>Chair of the CEQB Task Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. Ability to build consensus</td>
<td></td>
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<tr>
<td>1.2. Understanding and working within the Engineers Canada governance model</td>
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<tr>
<td>1.3. Understanding broader strategic context</td>
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<tr>
<td>1.4. Communications skills and relationship management with key external stakeholders including the CEAB, the CEQB, the regulators, the CEO Group, the officials’ groups and Engineers Canada staff</td>
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<tr>
<td>1.5. Work ethic, commitment, and ability to meet deadlines</td>
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</table>

Measuring chair responsibilities

Chairs work closely with staff at Engineers Canada to provide leadership and are expected to take on the following responsibilities in their role.

Please measure the efforts demonstrated by the individuals within the following areas of responsibility, using this scale:

- 3 – demonstrates an in-depth understanding
- 2 – demonstrates a strong understanding
- 1 – demonstrates a limited understanding
- 0 - Not able to measure

Chair responsibility (as per policy 6.1 Board committees and task forces)

<table>
<thead>
<tr>
<th>Chair responsibility (as per policy 6.1 Board committees and task forces)</th>
<th>Chair of Governance</th>
<th>Chair of HR/President</th>
<th>Chair of FAR</th>
<th>Chair of CEAB</th>
<th>Chair of the CEQB Task Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1. Chairing meetings and setting their agenda</td>
<td></td>
<td></td>
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<tr>
<td>2.2. Reviewing committee minutes and briefing notes</td>
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<tr>
<td>2.3. Developing, monitoring, and delivering on the work plan, with support from staff</td>
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</tr>
<tr>
<td>2.4. Providing updates on the committee’s activities to the Engineers Canada Board</td>
<td></td>
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<tr>
<td>2.5. Directing committee deliberations that are timely, fair, orderly, thorough, and efficient</td>
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<tr>
<td>2.6. Addressing issues arising with and between committee members</td>
<td></td>
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</tbody>
</table>

Providing results: Post chair-assessment discussion

Those serving as chair are subject to an annual peer evaluation. Following the results, chairs are provided with a report that includes the tabulated responses and open feedback shared through the survey. Each chair has the option of scheduling a discussion with the president-elect to discuss their results. This meeting is optional, and would focus on:

- Training opportunities: areas for improvement and potential supports required by the director
- Involvement opportunities: Identification of the director’s interests in future board contributions and roles, as well as succession opportunities
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**BRIEFING NOTE: For information**

<table>
<thead>
<tr>
<th>Generative discussion: value of international agreements to the regulators</th>
<th>4.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose:</td>
<td>Generative discussion</td>
</tr>
<tr>
<td>Link to the strategic plan:</td>
<td>n/a</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Stephanie Price, Executive Vice-President Regulatory Affairs and Secretary</td>
</tr>
<tr>
<td>Presented by:</td>
<td>David Lynch, President</td>
</tr>
</tbody>
</table>

**Background**

- The purpose of generative discussions is for the Board to reflect upon broader issues related to engineering regulation and the engineering profession, and to consider what topics the Board should be discussing.

- Typically, boards are engaged in two critical areas: fiduciary and strategic governance. These two areas are often defined as a board’s key responsibilities, and most meetings are structured for boards to receive information that allows them to meet those responsibilities. Unfortunately, this means that most reporting at a board meeting is related to past events, spent money, and status of the strategic plan. While all of this is important, it is mostly backward-looking.

- Generative thinking calls upon a board to address its third job: looking forward. Generative thinking, as defined in *Governance as Leadership: Reframing the Work of Nonprofit Boards*, is the step that takes place prior to strategic planning. Here the board asks itself “What problem(s) are we here to solve?” and “What discussions should we be having about our profession and its regulation?” and “What future challenges await us?”

- The results of the generative thinking will be captured by staff and recorded for consideration during the development of the next strategic plan. They become part of the next environmental scan and foresight report and inform the selection of the next strategic priorities.

**Next steps**

- President David Lynch will share his experiences and learnings from recent meetings with the National Society of Professional Engineers (NSPE), the National Council of Examiners of Engineering and Surveying (NCEES), and the International Engineering Alliance (IEA). Board members will be asked to consider the value of the international agreements to the regulators, to the Canadian public, and to the international engineering community.

- This is a continuation and expansion of the discussion from the workshop held in Whitehorse.

**Appendices**

- October 4, 2019 President’s Report
Over the past 3 months, the president’s main Engineers Canada-related activities have consisted of the following:

- Finalized planning and activities for the Board Planning Retreat in Whitehorse including preparation of a presentation and reference document focused on aspects of Diversity and Inclusivity in engineering. Arranged for the Yukon College Vice-President Academic & Student Services and the Associate Vice-President Indigenous Engagement & Reconciliation to present to the Board.
- Attended the Canadian Engineering Accreditation Board (CEAB) meeting in Ottawa in June. In addition to finalizing accreditation decisions, a significant portion of the CEAB meeting was devoted to providing analysis and recommendations concerning Washington Accord reports that would be considered at the International Engineering Alliance meeting in Hong Kong.
- Chaired the Human Resources (HR) Committee meetings in Quebec City and Whitehorse, and an HR committee teleconference meeting in August, concerning finalizing the membership of the Board committees, the HR Committee workplan, and the establishment of the terms of reference and membership of a Strategic Plan Task Force.
- Participated in two Finance, Audit, and Risk (FAR) Committee teleconference meetings in August to review the proposed 2020 EC Budget, the 2019 financial forecast, the 2019 statement of operations, and the risk register. A recommendation to the Board was also developed by FAR concerning the Board motions regarding limiting budget growth and policy regarding size and disposition of unrestricted assets.
- Chaired a teleconference meeting to finalize the agenda for the Oct 2019 Board meeting.
- Had periodic telephone conversations with the CEO concerning Engineers Canada matters.
- Participated in meetings (in-person and via telephone) with executives from TD Insurance concerning the Auto & Home Insurance affinity program with Engineers Canada.

**REGULATORS**

**PEGNL**

Attended, along with CEO Gerard McDonald, P.Eng., the Annual General Meeting (AGM) and Awards event of PEGNL in St. John’s in June and provided some remarks at the AGM concerning the priorities and programs of Engineers Canada. Past-director of Engineers Canada Bill Hunt, P.Eng., FEC, received the PEGNL Award for Service. Following the AGM, the PEGNL Board hosted an Envisioning session where the results were presented of a scenario-based analysis concerning several possible future states for PEGNL (a “best practice” that Engineers Canada should perhaps consider). Attended a reception to celebrate and thank PEGNL CEO & Registrar Geoff Emberley, P.Eng., FEC, who retired following the AGM.
**Engineers Nova Scotia**

Attended an Engineers Nova Scotia Council meeting in July in Digby along with Engineers Canada Directors from Nova Scotia and New Brunswick and Regulator representatives from Nova Scotia, New Brunswick, and PEI. Engaged in a wide-ranging “Digby Dialogue” following the Council meeting on topics including the changing regulatory landscape in Canada and internationally, the evolving value of international agreements concerning the mutual recognition of educational qualifications and professional credentials, and other matters. Some extraordinarily large lobster sacrificed themselves for the greater good in the evening.

**INTERNATIONAL ACTIVITIES**

**International Engineering Alliance (IEA) meetings**

Attended, along with CEO McDonald, the International Engineering Alliance (IEA) meetings in Hong Kong in June. Starting from the original six signatories (including Canada) to the Washington Accord (WA) in 1989, the WA now includes 20 full and 8 provisional signatories spanning the globe. The WA is a mutual recognition agreement (MRA) among the signatories concerning engineering educational qualifications. The WA signatories are as follows:

<table>
<thead>
<tr>
<th>Washington Accord (WA) Signatories</th>
<th>WA Year</th>
<th>IPEA (International Professional Engineering Agreement) IntPE</th>
<th>APEC Engineer Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>1989</td>
<td>Canada</td>
<td>Canada</td>
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<tr>
<td>Australia</td>
<td>1989</td>
<td>Australia</td>
<td>Australia</td>
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<tr>
<td>Ireland</td>
<td>1989</td>
<td>Ireland</td>
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<tr>
<td>New Zealand</td>
<td>1989</td>
<td>New Zealand</td>
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<td>United Kingdom</td>
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<td>United Kingdom</td>
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<td>United States</td>
<td>1989</td>
<td>United States</td>
<td>United States</td>
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<tr>
<td>Hong Kong China</td>
<td>1995</td>
<td>Hong Kong China</td>
<td>Hong Kong China</td>
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<td>South Africa</td>
<td>1999</td>
<td>South Africa</td>
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<td>Japan</td>
<td>2005</td>
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<td>Singapore</td>
<td>2006</td>
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<td>Korea</td>
<td>2007</td>
<td>Korea</td>
<td>Korea</td>
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<td>Chinese Taipei (Taiwan)</td>
<td>2007</td>
<td>Chinese Taipei (Taiwan)</td>
<td>Chinese Taipei (Taiwan)</td>
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<td>Malaysia</td>
<td>2009</td>
<td>Malaysia</td>
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<td>Turkey</td>
<td>2011</td>
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<td>Russia</td>
<td>2012</td>
<td>Russia (provisional)</td>
<td>Russia</td>
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<tr>
<td>India</td>
<td>2014</td>
<td>India</td>
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<td>Sri Lanka</td>
<td>2015</td>
<td>Sri Lanka</td>
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<td>China</td>
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<td>Pakistan</td>
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<td>Pakistan</td>
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<td>Peru</td>
<td>2018</td>
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<td>Peru</td>
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<tr>
<td>Bangladesh (provisional)</td>
<td>2016</td>
<td>Bangladesh (provisional)</td>
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<tr>
<td>Costa Rica (provisional)</td>
<td>2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washington Accord (WA) Signatories</td>
<td>WA Year</td>
<td>IPEA (International Professional Engineering Agreement) IntPE</td>
<td>APEC Engineer Agreement</td>
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<td>----------------------------------</td>
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<tr>
<td>Mexico (provisional)</td>
<td>2016</td>
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<td>Philippines (provisional)</td>
<td>2016</td>
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<td>Philippines</td>
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<td>Chile (provisional)</td>
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<td>Indonesia (provisional)</td>
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<td>Myanmar (provisional)</td>
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<td>Thailand (provisional)</td>
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<td>The Netherlands (provisional)</td>
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The Washington Accord is a multi-lateral agreement between bodies responsible for accreditation or recognition of tertiary-level engineering qualifications within their jurisdictions who have chosen to work collectively to assist the mobility of professional engineers. The Washington Accord outlines the mutual recognition, between the participating bodies, of accredited engineering degree programs. It also establishes and benchmarks the standard for professional engineering education across those bodies.

When the Washington Accord was initially established, it was believed that the primary value within Canada related to a possible reduction in the workload of the regulators when considering international engineering graduates from WA signatories. Given that the Washington Accord has now evolved to become an international standard regarding the structure and elements of undergraduate engineering programs, its value has also evolved by now, for example, stimulating an increased emphasis on public and worker safety in international engineering undergraduate programs offered in the jurisdictions of the WA signatories.

As shown in the preceding Table, Engineers Canada is also a signatory to two agreements concerning the recognition of the substantial equivalency of standards establishing the competency of professional engineers for independent practice. The International Professional Engineers Agreement (IPEA) is a multi-national agreement between engineering organizations in the member jurisdictions which creates the framework for the establishment of an international standard of competence for professional engineering, and then empowers each member organization to establish a section of the International Professional Engineers (IntPE) Register. The standard of competence applied in the IPEA is the same as for the APEC Engineer agreement, but only countries that are part of the APEC group can become members of the APEC Engineer agreement.

The International Engineering Alliance (IEA) is the umbrella organization for the Washington Accord, the IPEA and the APEC Engineer agreement. Four other accords/agreements relating to technicians and technologists are also part of the IEA.

At the IEA meetings in June, applications for WA provisional status and WA full signatory status were considered, with three of the five applications approved. All WA signatories are periodically reviewed (usually every six years), and four review reports were considered at the IEA meeting with six-year
extensions of signatory status approved in three of the cases. Canada will be reviewed in 2020 for a
decision in 2022 concerning the continuation of status as a WA signatory.

Significant discussion occurred concerning the manner in which the United Kingdom (UK) is apparently
recognizing engineering degrees from other WA signatories. It appears that the UK is treating the WA
four-year degrees as being equivalent to the UK three-year degrees for the purposes of licensure. This
equivalence would be inconsistent with the standards and policies under the WA. Engineers Canada
clearly raised its objection to this approach by the UK. The UK will be reviewed concerning its
conformance under the WA.

Several review reports, including a review of Canada, were considered regarding continued membership
in the IPEA and APEC Engineer agreements. Canada was provided with a two-year extension (not a six-
year extension) of membership in both the IPEA and the APEC Engineer agreements. The review report
raised concerns that a competency-based assessment (CBA) approach for licensure was not used in all of
the regulatory jurisdictions in Canada, and that a requirement for continuing professional development
(CPD) was not mandatory in all of the regulatory jurisdictions in Canada. Engineers Canada will have to
provide a report on these topics by the end of 2019 with another review to be conducted in 2020 for a
decision on continued membership in 2021.

From the reports and other information at the IEA meeting in June, it is clear that different jurisdictions
are taking very different approaches under the IPEA and APEC Engineer agreements. For example,
Canada is making very little use of these agreements as there are only 169 individuals listed on the
Engineers Canada IPEA (IntPE)/APEC Engineer international mobility register. However, in other
jurisdictions, organizations such as Engineers Australia lists several thousand individuals, and Engineers
New Zealand lists over a thousand individuals, on their international mobility registers, respectively.
These other jurisdictions are apparently of the view that the globalization of their engineering industries
will benefit from having large numbers of their professional engineers possess these international
credentials.

**National Society of Professional Engineering (NSPE) Conference**

Attended the National Society of Professional Engineering (NSPE) Conference in Kansas City in July and
provided a presentation to the NSPE House of Delegates concerning Engineers Canada, diversity
initiatives, mobility within Canada, and recent regulatory issues in Canada.

The mission of the NSPE is “to foster licensed professional engineers in service to society”. The NSPE has
approximately 21,000 members out of the more than 820,000 licensed PEs in the United States. The
NSPE annual revenues are approximately $9 million with just over half of the revenue provided by the
dues of the individual members. The NSPE is focused on protection of the public welfare through the
maintenance of strong engineering regulatory systems.

The NSPE has documented over 40 threats to licensure across the United States, with 38 of these in just
the last legislative session. According to the NSPE, these threats to licensure are supported by an
extremely well-funded campaign apparently involving organizations such as the Institute for Justice, the
American Legislative Exchange Council (ALEC), Americans for Prosperity, and other like-minded
organizations.
The NSPE is attempting to counter these threats to licensure and public safety by organizing an “Alliance for Responsible Licensure” that will mount a public campaign to counter these threats to licensure. The NSPE is also focused on enhancing the mobility for PE license holders within the United States, and is promoting increased membership in the NSPE.

**National Council of Examiners for Engineering and Surveying (NCEES) 98th Annual Meeting**

Attended the National Council of Examiners for Engineering and Surveying (NCEES) 98th Annual Meeting in Washington, DC in August. The mission of the NCEES is “to advance licensure for engineers and surveyors in order to safeguard the health, safety, and welfare of the public”.

The primary work of the NCEES is to develop and offer psychometrically valid examinations to support engineering licensure by the member boards at the state level (and also in several non-state jurisdictions). This includes the Fundamental of Engineering (FE) and Fundamentals of Surveying (FS) examinations, as well as over 15 discipline-specific Principles and Practice in Engineering (PE) examinations and a Principles and Practice in Surveying (PS) examination. These examinations are all in the midst of a transition to a computer-based testing (CBT) format which is planned to be completed by 2024.

The NCEES was in considerable financial difficulty in 1999, but has managed a remarkable financial recovery over the past 20 years and now has total assets approaching $70 million with annual revenues and expenditures of approximately $30 million. To support their growing operations, the NCEES has recently purchased a new building with occupancy planned over the next year.

The NCEES shares the concerns of the NSPE regarding threats to public protection arising from regulatory changes. Some recent adverse court decisions based on First Amendment challenges were described that have certainly weakened the right to title legislation in some states concerning the use of “engineer”.

The NCEES is also working to enhance the mobility of licensed PEs in the United States with the objective of having comity among the member boards (i.e. having member boards accept the licensing decisions of their counterparts). Discussions were held with representatives from Texas and Nevada concerning their professional-level mobility agreements with certain Canadian jurisdictions. The Nevada mobility agreement is apparently dependent on Canada remaining a member of the IPEA agreement.

**Upcoming International Meetings**

June to August is the most active period of the year concerning engagement with international partners. The one major remaining international commitment will be to attend an ABET meeting (the US accreditation counterpart to the CEAB). All other invitations to attend international events/meetings have been declined.
BOARD SIZE REDUCTION PLAN

Executive summary
On October 4, 2019, the Board of Engineers Canada “tasked the Governance Committee to develop a plan for a reduction in Board size pursuant to the Meeting of Members motions 5665 and 5666, to be presented for decision at the May 2020 Board meeting”.

In response, the Governance Committee brings forward this plan to reduce the Board of Engineers Canada from 23 to 16 Board members over a three-year period.

This document has been prepared by the Governance Committee for Board discussion and resolution.

Background
At the May 26, 2018 Annual Meeting of Members, the following motions were passed directing the Board regarding the scope of the Governance, Strategic Planning, and Consultation project, then entering its final Governance 2.0 phase:

**Motion 5665:** THAT the Engineers Canada Board be directed to ensure future governance review and planning (‘Governance 2.0’) include review of Board and Committee governance, adoption of best practice, and mechanisms to improve the efficiency and performance of the Board and committees. Specifically, members ask that (‘Governance 2.0’) consultation and reporting make reference to Board and committee size, work plans and deliverables, membership, performance management, adoption of best practice in nominations (i.e. skills, experience & attributes matrix), independence, and diversity.

**Motion 5666:** THAT the Members restrict further growth to the Board of Engineers Canada until the work associated with Motion 1 is addressed to the satisfaction of the Members.

In response to this motion, the scope of the project was expanded, and the final Governance 2.0 report addressed all issues except board size. Details of how the issues were addressed are included in Appendix A. Board size is the one remaining issue to be addressed.

If the Board resolves to recommend a change in board size, the Members of Engineers Canada (the twelve engineering regulators) have the authority to change the board size through amendment of Engineers Canada’s Bylaw.

Introduction
In fall 2017, the Board consulted with regulators on the issue of board size. Although opinions were wide-ranging, most regulators indicated their preference for a smaller board restricted to a maximum size. At that time, 10 regulators supported a board with 12 directors. However, both OIQ and PEO indicated that they could not support this option, and that their first preference was for the status quo of 23 directors.

However, all regulators indicated that a board with 16 directors was an option that they would be willing to consider. The Governance Committee resolved to use this as the basis for this report. This report provides a plan to reduce the board size from 23 directors to 16 directors over a three-year period, using attrition only, and analyses the impacts of change.

Information regarding the history of the issue of board size is included in Appendix C.
Proposed board size
The Governance Committee is proposing that the Board consist of 16 members, based on one member for each regulator plus an additional board member for each regulator at a 15% of membership total interval step function. Based on the current composition of the members the Board of Engineers Canada would consist as follows:

<table>
<thead>
<tr>
<th>For those regulators representing</th>
<th>The number of directors is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15% of all licences reported to Engineers Canada:</td>
<td>1 director</td>
</tr>
<tr>
<td>15-30% of all licences reported to Engineers Canada:</td>
<td>2 directors</td>
</tr>
<tr>
<td>More than 30% of licences reported to Engineers Canada:</td>
<td>3 directors</td>
</tr>
</tbody>
</table>

The resulting Board composition is:

- 3 directors: Ontario = 3
- 2 directors: Quebec and Alberta = 4
- 1 director: all other jurisdictions = 9

= 16 total directors

Details of the number of registrants for each regulator, and their percentage of the overall number of registrants, are provided in Appendix B.

Schedule to reduce to 16 directors
For most regulators (eight out of twelve), the change to 16 directors will not impact the number of directors that they nominate. They will continue with “business as usual”. For four regulators, the following reductions will be required:

- Engineers & Geoscientists British Columbia will reduce from two to one
- APEGA will reduce from four to two
- OIQ will reduce from four to two
- PEO will reduce from five to three

The plan starts with the number of known directors as of May 2020. If the Board approves this plan on May 23, 2020 and then puts a motion before the Members in the following year, the actions could start as early as at the May 2021 meeting of Members, with all required reductions being achieved by May 2023. Under this plan, no directors will be required to resign an existing appointment. Note that if the intent to reduce the board size is resolved, the schedule to achieve the outcome can be adjusted moving forward.

This current proposal does not preclude a future decision by the Board or the Members to further adjust board size.
<table>
<thead>
<tr>
<th>Director</th>
<th>Term Ends</th>
<th>Term length at that date</th>
<th>Action at 2021 AMM</th>
<th>Action at 2022 AMM</th>
<th>Action at 2023 AMM</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGBC1</td>
<td>2021</td>
<td>6 years</td>
<td>Extend for two years or appoint new for two years</td>
<td>None required</td>
<td>Do not renew or re-appoint</td>
<td>Position eliminated</td>
</tr>
<tr>
<td>EGBC2</td>
<td>2022</td>
<td>3 years</td>
<td>None required</td>
<td>Business as usual (renew or re-appoint)</td>
<td>None required</td>
<td>Single director continues</td>
</tr>
<tr>
<td>APEGA1</td>
<td>2020/2023</td>
<td>3/6 years</td>
<td>Business as usual (renew or re-appoint)</td>
<td>None required</td>
<td>Do not renew or re-appoint</td>
<td>Position eliminated</td>
</tr>
<tr>
<td>APEGA2</td>
<td>2020/2023</td>
<td>3/6 years</td>
<td>Business as usual (renew or re-appoint)</td>
<td>None required</td>
<td>Do not renew or re-appoint</td>
<td>Position eliminated</td>
</tr>
<tr>
<td>APEGA3</td>
<td>2021</td>
<td>5 years</td>
<td>Appoint new member to 2023</td>
<td>None required</td>
<td>Business as usual (renew or re-appoint)</td>
<td>One of two directors to continue</td>
</tr>
<tr>
<td>APEGA4</td>
<td>2022</td>
<td>3 years</td>
<td>None required</td>
<td>Business as usual (renew or re-appoint)</td>
<td>None required</td>
<td>One of two directors to continue</td>
</tr>
<tr>
<td>PEO1</td>
<td>2020</td>
<td>6 years</td>
<td>Business as usual (appoint new to 2023)</td>
<td>None required</td>
<td>Do not renew or re-appoint</td>
<td>Position eliminated</td>
</tr>
<tr>
<td>PEO2</td>
<td>2020/2023</td>
<td>3/6 years</td>
<td>Business as usual (renew or re-appoint)</td>
<td>None required</td>
<td>Do not renew or re-appoint</td>
<td>Position eliminated</td>
</tr>
<tr>
<td>PEO3</td>
<td>2021</td>
<td>3 years</td>
<td>Business as usual (renew or re-appoint to 2023)</td>
<td>None required</td>
<td>Business as usual (renew or re-appoint)</td>
<td>One of three directors to continue</td>
</tr>
<tr>
<td>PEO4</td>
<td>2022</td>
<td>3 years</td>
<td>None required</td>
<td>Business as usual (renew or re-appoint)</td>
<td>None required</td>
<td>One of three directors to continue</td>
</tr>
<tr>
<td>PEO5</td>
<td>2022</td>
<td>3 years</td>
<td>None required</td>
<td>Business as usual (renew or re-appoint)</td>
<td>None required</td>
<td>One of three directors to continue</td>
</tr>
<tr>
<td>OIQ1</td>
<td>2020</td>
<td>9 years</td>
<td>Business as usual (appoint new to 2023)</td>
<td>None required</td>
<td>Do not renew</td>
<td>Position eliminated</td>
</tr>
<tr>
<td>OIQ2</td>
<td>2020/2023</td>
<td>3/6 years</td>
<td>Business as usual (renew or re-appoint)</td>
<td>None required</td>
<td>Do not renew</td>
<td>Position eliminated</td>
</tr>
<tr>
<td>OIQ3</td>
<td>2021</td>
<td>3 years</td>
<td>None required</td>
<td>Business as usual (renew or re-appoint)</td>
<td>None required</td>
<td>One of two directors to continue</td>
</tr>
<tr>
<td>OIQ4</td>
<td>2022</td>
<td>6 years</td>
<td>None required</td>
<td>None required</td>
<td>Business as usual (renew or re-appoint)</td>
<td>One of two directors to continue</td>
</tr>
</tbody>
</table>
Impacts of a smaller board size

Impact on workload
The Board has three permanent committees and three appointments, with membership set in their Terms of Reference. Most committees meet bi-monthly, with monthly meetings sometimes required.

<table>
<thead>
<tr>
<th>Committee</th>
<th># of Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation Board appointments</td>
<td>2</td>
</tr>
<tr>
<td>Finance, Audit, and Risk Committee</td>
<td>5</td>
</tr>
<tr>
<td>Governance Committee</td>
<td>3</td>
</tr>
<tr>
<td>Human Resources Committee</td>
<td>5</td>
</tr>
<tr>
<td>Qualifications Board appointments</td>
<td>2</td>
</tr>
<tr>
<td>30 by 30 Champion</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

This means that only a single director would be required to serve on more than one committee. This will not overwhelm any director. In addition, some directors are required to participate on more than one committee due to their position (e.g. past-president sits on Human Resources and Governance committees). It is important to note, however, that all directors will be required to sit on committees, including those in their first-term on the Board.

Since the workload varies between committees, strategic appointments can be made such that any double-appointed directors do not have the higher workload assignments (currently identified as higher workload assignments: Accreditation Board, Qualifications Board, and Finance, Audit and Risk Committee).

Impact on Board effectiveness

“In regards to whether the composition of the board of directors determines the performance of the firm … the research is neither conclusive nor definitive.”

According to Deloitte, board effectiveness is influenced by eight key areas:

1. Board composition – The board has the right balance of skills, knowledge, and experience to govern the company effectively.
2. Board engagement – The board engages with its internal and external stakeholders on a timely basis.
3. Governance structure – The board’s Committee structure is clear and provides members with assurance to discharge their duties effectively.
4. Board agenda and forward plan – The board’s meeting agenda and forward plan ensures that members are focusing on the right areas at the right time.
5. Board reporting – The information received by board members is comprehensive, accurate, easy to understand, timely and appropriate.
6. Board dynamics – Board members operate effectively as a team, striking the right balance between trust and challenge.
7. Chair’s leadership – The chair is an effective leader of the board.
8. Performance evaluation – The board members are continually improving as a group and as individuals.

While some of these issues are directly impacted by the number of directors and their provenance, others are indirectly related as well.

**Board composition** is largely out of the control of the directors, as it is the Members who nominate and appoint directors. The Board can only influence composition by tracking its skills, competencies, and qualities and submitting a desired profile to the Members for their consideration during the nomination process.

**Board engagement** with the regulators could be positively or negatively impacted by the number of directors from each region. When there is only one director, it is clear who holds the responsibility to engage the regulator. When there are several directors, there is the potential that more engagement with the regulator occurs, but this may be hindered by a lack of clarity of roles and responsibilities of each director.

**Board dynamics** could be either negatively or positively impacted by the number of directors. More voices may lead to a greater diversity of viewpoints and a better end-solution, or it could lead to disengagement of some directors while others dominate the conversation at the board table.

**Performance evaluation** requires more resources (time and effort) the higher the number of directors who are assessed and who engage in improvement activities, as does the Chair’s performance since managing the deliberations of a larger group is harder than managing those of a smaller group.

**Governance structure, board agenda, and board reporting** are largely unaffected by board size.

According to a 2011 report from the Council for Healthcare Regulatory Excellence on board size and effectiveness, the most effective size for a board is between eight and 12 members. They posit that larger boards can lead to communication and co-ordination problems, causing effectiveness and performance to suffer. They suggest that a reduction in board size will help ensure boards provide effective strategic decision making and oversight.

**Impact on decision making**

Board dynamics are a key factor that directly relates to the ability of a board to make good decisions. Good decisions are made by a reasonable number of independent directors. Too many directors can obfuscate discussion and may lead to poorer decisions. The optimal board size should be balanced to result in representative, robust, and engaged discussion from all members in a reasonable time frame.

It is important to note, that our Board operates with meeting rules that stipulate that each director shall speak once before any speaks for a second time, and that no director shall speak more than twice. If a question is being considered along regional lines, it is clear that a region with more directors on the Board will have more opportunity to voice their opinion and potential influence the outcome of any vote.

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Condorcet was an intellectual leader during the French revolution. In 1785 he published *Essay on the Application of Analysis to the Probability of Majority Decisions*, outlining political mechanisms that rationalized the drafting of laws for the public good. He offered an argument for the wisdom of the multitude, known today as the “Condorcet Jury Theorem”. According to the argument, a group of people make the best decision when the following 3 conditions are met:

1. Individuals are fully informed by rational and reliable information
2. Everyone votes independently of others
3. Everyone votes in the best interest of the organization and not strategically for special interests.

To summarize, best decisions are made by the largest number of independent voters. However, adding more non-independent voters (already committed) decreases the probability of the correct decision.

**Impact on the fairness of regulator representation**

Engineers Canada is an incorporated Canada not-for-profit Corporation. Under 154 (5) of the act, each member is entitled to one vote at a meeting of members. This is consistent with a federated cooperative model of governance for a nonprofit that provides for one member-one vote.

Engineers Canada’s Bylaw provides for representation based on the size of the regulator at meetings of Members, regardless of board size. Per Bylaw section 3.4 (2) all questions raised at meetings of Members require a 2/3-60% Majority. For a motion to pass, a minimum of two-thirds of the Members voting (each Member having one vote) must vote in favour and those voting in favour must represent a minimum of sixty percent of represented registrants in Canada. The reduction in board size will have no impact on the number of members or the number of votes each one holds, and proportional representation would remain intact at a meeting of Members, as designed in the Bylaw.

The Members have the authority to approve the strategic plan and major projects, to amend the Per Capita Assessment, and the bylaw or the Articles of Continuance. In this way, representative voting continues to apply to our highest-priority items, regardless of board size.

At a Board meeting, each director may cast one vote. These votes are not meant to be representative of regulators or registrants and rely on each director’s independent fiduciary responsibility to Engineers Canada. Most board votes require a simple majority, but those involving recommendations to the Members; approval of the budget; adoption, amendment or repeal of policies, procedures or standards; or regarding litigious matters must be supported by a majority of two-thirds of the directors voting.

If Engineers Canada were to employ a purely representative democracy model at the board level, the Members would elect directors based on the size of each regulator to present their interests proportionally. Member regulators vary greatly in size, with the largest regulator (PEO) 126 times larger than the smallest (PEI). This level of representation is not achievable for Engineers Canada at the board level, so we employ a cooperative board, responsible for voting in the best interest of Engineers Canada.

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Impact on diversity of the Board

Good board governance requires the development of a needs and skills matrix to inform the members as to the desired attributes. The desired attributes may include diversity in genders, age, ethnicity, or other factors. However, as the Board consists of appointees from the various Member regulators, it may be difficult to achieve a truly diverse board.

Alternatively, a stakeholder board may be considered where positions are reserved for token members to try and reflect the desired diversity make-up. These types of boards are often large.

While it may be argued that it could harder to achieve the Board’s diversity goals with a smaller number of directors, since the Board does not determine its membership, this is never a factor that the Board can control. Diversity on our Board may be improved by educating the Members to seriously consider the Board’s competency profile and requested attributes when making individual appointments. This applies regardless of the size of the Board.

Impact on costs

The Board holds five face-to-face meetings per year, from one to three days in duration. While the overall meeting costs (e.g. room rental, audio visual set-up etc.) would be unaffected by a smaller board size, the travel costs would be. Assuming 7 fewer directors, $1200 per flight, and $200 per room per night, the expected savings are:

<table>
<thead>
<tr>
<th></th>
<th>Feb</th>
<th>May *</th>
<th>June *</th>
<th>Sept</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flights</td>
<td>$1200</td>
<td>$1200</td>
<td>$1200</td>
<td>$1200</td>
<td>$1200</td>
</tr>
<tr>
<td>Nights in the hotel</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cost / night</td>
<td>$200</td>
<td>$200</td>
<td>$200</td>
<td>$200</td>
<td>$200</td>
</tr>
<tr>
<td>Incidental</td>
<td>$100</td>
<td>$100</td>
<td>$100</td>
<td>$100</td>
<td>$100</td>
</tr>
<tr>
<td>Cost per meeting, per person</td>
<td>$1900</td>
<td>$3300</td>
<td>$3100</td>
<td>$1700</td>
<td>$1700</td>
</tr>
</tbody>
</table>

### Annual savings per director

$11,700

### Total savings (7 directors)

$81,900

* the cost of flights for these two meetings includes both the director and their spouse

Conclusion

The Governance Committee recommends that the Board of Engineers Canada be reduced from 23 to 16 directors over a three-year period. If the Board agrees, a motion should be passed, recommending this action to the Members, along with the proposed schedule for reduction. The Members could be asked to consider this issue at a single-issue, special meeting of Members in late 2020, so that the 2021 nominations process for new directors could reflect the requirements in the proposed schedule.
Appendix A – Governance, Strategic Planning and Consultation Project Improvements

Members’ motion 5665 directed to Board to “ensure future governance review and planning (‘Governance 2.0’) include review of Board and Committee governance, adoption of best practice, and mechanisms to improve the efficiency and performance of the Board and committees.

Specifically, members ask that (‘Governance 2.0’) consultation and reporting make reference to Board and committee size, work plans and deliverables, membership, performance management, adoption of best practice in nominations (i.e. skills, experience & attributes matrix), independence, and diversity.”

All items except board size were addressed through the Governance, Strategic Planning and Consultation project. The following table explains the changes made to address each issue raised in Members motion 5665.

<table>
<thead>
<tr>
<th>Members motion 5665 issue</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of Board governance</td>
<td>New <a href="#">board policy manual</a> – 80 new or revised policies</td>
</tr>
<tr>
<td>Review of committee governance</td>
<td>New committee structure reduced number of committees from 5 to 3 (not including AB and QB)</td>
</tr>
<tr>
<td>Adoption of best practice</td>
<td><a href="#">Governance benchmarking report</a> <a href="#">Governance 2.0 report</a> used 11 sources</td>
</tr>
<tr>
<td>Mechanisms to improve efficiency of Board</td>
<td>Board annual agenda established. Authority of committees and required board approvals delineated in Governance 2.0 report and terms of reference.</td>
</tr>
<tr>
<td>Mechanisms to improve efficiency of committees</td>
<td>Committee deliverables and meeting dates established annual.</td>
</tr>
<tr>
<td>Mechanism to improve performance of Board</td>
<td>Speaking rules at board meetings Competency profiles established and used as basis for assessment of directors and of board as a whole.</td>
</tr>
<tr>
<td>Mechanisms to improve performance of committees</td>
<td>Smaller committee size, defined purpose, authority and work plans.</td>
</tr>
<tr>
<td>Board size</td>
<td>-</td>
</tr>
<tr>
<td>Committee size</td>
<td>Set based on minimum required to accomplish the work.</td>
</tr>
<tr>
<td>Board work plans and deliverables</td>
<td>Performance assessment reports for all strategic priorities (4) and operational imperatives (10) at every board meeting.</td>
</tr>
<tr>
<td>Committee work plans and deliverables</td>
<td>Work plans (based on Governance 2.0 report, Board Responsibilities in the Strategic Plan, committee terms of reference and recommendations of former committee) approved and reported on annually.</td>
</tr>
<tr>
<td>Board membership</td>
<td>N/A - determined by the Members. Annual request for nominees is based on assessment of current and required board competencies</td>
</tr>
<tr>
<td>Committee membership</td>
<td>Set based on required competencies (in terms of reference) and representation</td>
</tr>
<tr>
<td>Members motion 5665 issue</td>
<td>Improvement</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Board performance management</td>
<td>Competency profiles established and used as basis for assessment of directors and of board as a whole. Governance effectiveness survey (for Members to provide feedback to the Board) to be conducted regularly.</td>
</tr>
<tr>
<td>Committee performance management</td>
<td>Assessment of committee chairs required (to be implemented)</td>
</tr>
<tr>
<td></td>
<td>Performance against work plan tracked.</td>
</tr>
<tr>
<td>Adoption of best practice in nominations</td>
<td>Nominations are the responsibility of the Members. Annual request for nominees is based on assessment of current and required board competencies.</td>
</tr>
<tr>
<td>Independence</td>
<td>Nominations are the responsibility of the Members.</td>
</tr>
<tr>
<td>Diversity</td>
<td>Nominations are the responsibility of the Members. Board diversity policy 8.2 established</td>
</tr>
</tbody>
</table>
Appendix B - Calculation of regulator representation

<table>
<thead>
<tr>
<th>Regulator</th>
<th>Registrants (2018)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineers Geoscientists BC</td>
<td>31,233</td>
<td>10.3%</td>
</tr>
<tr>
<td>Engineers Yukon</td>
<td>1,061</td>
<td>0.4%</td>
</tr>
<tr>
<td>APEGAG</td>
<td>65,190</td>
<td>21.5%</td>
</tr>
<tr>
<td>NAPEG</td>
<td>1,947</td>
<td>0.6%</td>
</tr>
<tr>
<td>APEGS</td>
<td>12,618</td>
<td>4.2%</td>
</tr>
<tr>
<td>Engineers Geoscientists MB</td>
<td>8,101</td>
<td>2.7%</td>
</tr>
<tr>
<td>PEO</td>
<td>98,866</td>
<td>32.6%</td>
</tr>
<tr>
<td>OIQ</td>
<td>65,533</td>
<td>21.6%</td>
</tr>
<tr>
<td>Engineers Geoscientists NB</td>
<td>5,742</td>
<td>1.9%</td>
</tr>
<tr>
<td>Engineers Nova Scotia</td>
<td>6,937</td>
<td>2.3%</td>
</tr>
<tr>
<td>Engineers PEI</td>
<td>787</td>
<td>0.3%</td>
</tr>
<tr>
<td>PEGNL</td>
<td>4,861</td>
<td>1.6%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>302,876</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Under current bylaw 3.4(2); all questions arising at a meeting of the Members shall require a resolution passed by the members present of at least a two-thirds of the total number of Members and representing at least sixty percent of the total number of Registrants.

Under Roberts Rules, this bylaw may be changed by the Members in 3 ways:
1. By a simple majority vote of the members present at a regular meeting where proper notice has been given,
2. By a 2/3 majority vote of members present at any called meeting,
3. By an absolute majority of the total members (8/12) at any called meeting with quorum.

3.4 Votes to Govern at Members' Meetings
Each Member present at a meeting shall have the right to exercise one vote. This vote shall be exercised by the current chair/president of a Member.
(1) A Member may, by means of a written proxy, appoint a proxy holder to attend and act at a specific meeting of Members, in the manner and to the extent authorized by the proxy.
(2) All questions arising at a meeting of the Members shall require a resolution passed by at least a 2/3-60% Majority.
(3) The chair of any meeting of Members shall not have the right to vote thereat and, in case of an equality of votes the chair of the meeting shall have no casting vote and such motion before the Members shall be deemed to be defeated.

3.5 Quorum
(1) A quorum at any meeting of the Members shall be at least two-thirds of the total number of Members, representing at least sixty percent of the total number of Registrants.
(2) If a quorum is present at the opening of any meeting of Members, the Members present may proceed with the business of the meeting even if a quorum is not present throughout the meeting.
Appendix C – History of the Board Size

The number of directors is currently determined based on the bylaw section 4.2, which was enacted in the summer of 2019 to restrict further growth of the Board.

Previously, from 2010 to 2019, the size of the Board was set with the following system:

   a) Each Member appoints at least one (1) Director to the Board.
   b) Every Member that has more than 20,000 registrants, may (but is not required to) appoint an additional Director for every 20,000 of its additional registrants, as per the following.

<table>
<thead>
<tr>
<th>Number of Registrants of the Member as at December 31st</th>
<th>Total Number of Directors that may be appointed by the Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 20,000</td>
<td>1</td>
</tr>
<tr>
<td>20,001 to 40,000</td>
<td>2</td>
</tr>
<tr>
<td>40,001 to 60,000</td>
<td>3</td>
</tr>
<tr>
<td>60,001 to 80,000</td>
<td>4</td>
</tr>
<tr>
<td>80,001 to 100,000</td>
<td>5</td>
</tr>
</tbody>
</table>

This system was put in place in 2010 as part of the Synergy Task Force. The resulting size is 23 directors.

During 2017, significant work was undertaken to address the issue of board size, including consultation with all regulators. At the time, Ontario and Quebec were not supportive of a small board size, while all other jurisdictions supported a board of 12 directors, one per region. All regions agreed, however, that a board of 16 was a second choice that they could live with.

In May 2018, Engineers Nova Scotia brought a motion to the Meeting of Members to reduce the board size to 12. The motion was defeated. In May 2019, the Members requested further work on board and committee size. Committee size was addressed through the GSPC project work, and board size is addressed in this report.

From 2002 to 2010, the Board was constituted in the following manner:

The number of Directors was fixed at 18, to be reviewed every five years, consisting of:

1 from PEGNL
1 from Engineers Nova Scotia
1 from Engineers PEI
1 from Engineers and Geoscientists New Brunswick
3 from OIQ
3 from PEO
1 from Engineers and Geoscientists Manitoba
1 from APEGS
2 from APEGA
2 from Engineers and Geoscientists British Columbia
1 from Engineers Yukon
1 from the NAPEG

Prior to 2002, the Board was constituted in the following manner:

All Members contributing less than 10% of the Assessment shall have one (1) Director; all Members contributing 10% or more but less than 20% of the Assessment shall have two (2) Directors; all Members contributing 20% or more of the Assessment shall have three (3) Directors

Today, this would result in a board size of 19 directors.

To review the implementation of the 2010 Synergy Task Force recommendations, past-President Jim Beckett wrote a report in May 2015 which included his observations, five years later. The report was
presented to the Board and it was noted that the results of this mandatory review of Synergy would “feed into the work of the Linkages Task Force and possibly recommendations to the Governance Committee”:

**Composition of the Board of Directors**

**Recommendations of the Synergy Task Force**

- In order to ensure full and fair representation as well as to maintain a direct connection it is recommended that each Constituent Association appoints one director and an additional director for every 20,000 assessed engineers.

<table>
<thead>
<tr>
<th>Range</th>
<th>Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 20,000</td>
<td>1 director</td>
</tr>
<tr>
<td>20,001 to 40,000</td>
<td>2 directors</td>
</tr>
<tr>
<td>40,001 to 60,000</td>
<td>3 directors</td>
</tr>
<tr>
<td>60,001 to 80,000</td>
<td>4 directors</td>
</tr>
<tr>
<td>80,001 to 100,000</td>
<td>5 directors</td>
</tr>
</tbody>
</table>

The number of Directors is determined according to the previous years’ assessment number and sets the Board composition for the coming Board year. For example the 2009/2010 Board composition according to the December 31st 2008 assessment number.

- This proposal would add 1 Director from Ontario and 1 Director from Alberta.

**Observation:** Originally, the proposal of the Task Force was to add an additional director for every 25,000 assessed engineers. However, this would have required APEGBC to reduce their representation from 2 directors down to 1. The proposal was modified to an additional director for every 20,000 assessed engineers to eliminate this problem, however it added two new directors, and in the longer term will increase the size of the Board of Directors fairly quickly.

The result of this recommendation is a current Board of Directors with 22 voting members for the 2014-2015 term. It is this author’s view that this size of Board (along with the observing members to be discussed later) is much too large for the business needs of Engineers Canada. During my terms as President-Elect, President, and Past-President, I have noticed that Directors easily and quickly become disengaged from discussions when so many directors offer their points of view. It also appears that most directors would prefer to participate in serving the interests of the Constituent Associations and other stakeholders, rather than the ongoing monitoring of the Chief Executive Officer under the governance approach used by Engineers Canada.

For serving the interests of the Constituent Associations and other stakeholders of Engineers Canada, a large and inclusive Board would appear to be a very good solution. For the ongoing monitoring of the effectiveness of the Chief Executive Officer in implementing the Ends of Engineers Canada, a smaller board (of perhaps 7-8 directors) would appear to be optimum. Without some significant changes to the structure of the Board, these two very different objectives will be difficult to achieve.

One suggestion would be to restructure Engineers Canada to have a Board which is similar to the current Executive Committee. This Board would focus mainly on governance issues. A larger assembly, with perhaps 12-15 members (which would include the Executive Committee members) and several observers would focus on serving the interests of the Constituent Associations and other stakeholders.
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BRIEFING NOTE: For information

<table>
<thead>
<tr>
<th>Risk register</th>
<th>5.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose:</td>
<td>To update the Board on risks to the organisation</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Gerard McDonald, CEO</td>
</tr>
<tr>
<td>Presented by:</td>
<td>Lisa Doig, Chair, Finance, Audit, and Risk Committee and Director from APEGA</td>
</tr>
</tbody>
</table>

Background

- Risk management is the process of identifying, analyzing, and responding to any risk that arises within the organization. Risk management isn’t reactive only; it should be part of the planning process to figure out risks that might happen and how to control those risks if, in fact, they occur.
- A risk is anything that could potentially impact our timelines, performance, reputation, or budget. Risks are potentialities, and if they become realities, they then become classified as “issues” that must be addressed. So, risk management, then, is the process of identifying, categorizing, prioritizing, and planning for risks before they become issues.
- A risk register is a tool for documenting risks, and actions to manage each risk. As risks are identified they are logged on the register and actions are taken to respond to the risk.
- Engineers Canada maintains a risk register to manage our risks, make sure that we are taking appropriate action, and adequately prepare for potential issues.
- All risks are scored in terms of likelihood and impact, and mapped to a chart, called a heat map, with the following scores:

```
<table>
<thead>
<tr>
<th>LIKELIHOOD / PROBabilité</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Insignificant/ Négligeable 1</td>
</tr>
<tr>
<td>Extremely likely/ Extrêmement probable 5</td>
<td>5</td>
</tr>
<tr>
<td>Likely/ Probable 4</td>
<td>4</td>
</tr>
<tr>
<td>Moderate/ Modérée 3</td>
<td>3</td>
</tr>
<tr>
<td>Unlikely/ Improbable 2</td>
<td>2</td>
</tr>
<tr>
<td>Low/ Faible 1</td>
<td>1</td>
</tr>
</tbody>
</table>
```
Status update

- The Finance, Audit, and Risk (FAR) Committee met on December 8 and began a “deep-dive” review of the existing strategic risks. New strategic risks resulting from the environmental scan were also approved. These new risks will be further defined following feedback received at the foresight workshop on February 25, 2020 and added to the heat map for the May meeting report. These new risks include:
  - Lack of national position as to why non-CEAB applicants are assessed differently across the country
  - Stability of long-term funding of Engineers Canada
  - Changing demographic of profession affects viability of current structure of federation
  - Future of engineering profession is challenged by threats to self-regulation
  - Loss of signatory status to international agreements and accords
  - Difficulty assessing the impact of outreach activities
  - 30/30 target will not be met
  - Confusion at the national level as to who represents the profession

- The risk register was reviewed by the senior leadership team in January 2020 and amended as follows:
  - Risks have shifted between Board and organizational accountability, as appropriate.
  - Redundant or overlapping risks have been retired; gaps in the numbering can be attributed to this work.
  - While all risks will continue to be listed on the appropriate heat maps, reporting for operational risks has been streamlined to include details for only those risks currently in the yellow, orange and red areas of the map. Details for all Board risks will continue to be provided.

- The report now includes one-page briefing notes for each risk item in the red area of the heat map. These critical risk review summaries include how long the risk has been elevated, what actions are being taken to respond to the risk, and the predicted timeframe for risk reduction.

Next steps

- The FAR Committee will:
  - Continue oversight of the CEO’s organizational risk register and the Board’s strategic risk register, and make recommendations with respect to the strategic risk register to the Board at the winter, spring, fall, and late fall Board meetings.
  - Complete their review of the Board’s strategic risk register and make recommendations of acceptable mitigation strategies, residual risk, and required actions to the Board as an input to the 2022-24 strategic plan. Finalize the inclusion of the new strategic risks (level, symptoms, mitigating actions, etc.) based on input from the foresight workshop.

Appendices

- Risk register, updated in January 2020
- Critical risk review summaries for the following risks in the red area of the heat map:
  - 19 Financial
  - 26 Accreditation
  - 35 Holism
**Engineers Canada Board risks**

The following heat map includes risks that are the responsibility of the Board and/or committees. In the past and for this meeting, Engineers Canada’s senior leadership team reviews these risks prior to each reporting period. Moving forward, ownership of these risks will shift to the responsible committees. The following scores have been adjusted:

<table>
<thead>
<tr>
<th>Risk Description</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 - AB and QB oversight</td>
<td>likelihood score reduced to unlikely given the new mechanisms introduced in the past year (e.g. active role of the director appointees on each board)</td>
</tr>
<tr>
<td>43 - Implementation of governance improvements</td>
<td>likelihood score reduced to unlikely given the supporting processes now being undertaken by the Board and its committees. Impact score reduced to moderate reflecting the regulators’ decreased focus on governance as an Engineers Canada “issue”</td>
</tr>
</tbody>
</table>

**Legend**

1 - Poor vision or strategy  
3 - Succession planning for CEO  
5 - Duty of care - Board  
17 - Investment market risk  
26 - Accreditation process  
28 - AB and QB oversight  
35 - Holism of the federation  
43 - Implementation of governance improvements

Board risks are further expanded upon with suggested monitoring and response plans in the following table. Engineers Canada staff will support the Board in managing these risks, as requested.
<table>
<thead>
<tr>
<th>Risk #</th>
<th>Risk category</th>
<th>Title</th>
<th>Description</th>
<th>Symptoms</th>
<th>Risk response strategy</th>
<th>Monitoring method</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strategic</td>
<td>Poor vision or strategy</td>
<td>A lack of vision, direction or strategy for Engineers Canada would result in owners' needs not being met.</td>
<td>Diminished confidence by the owners&lt;br&gt;Diminished engagement of owners&lt;br&gt;Decreased staff morale and productivity</td>
<td>Prevention</td>
<td>Stakeholder feedback</td>
<td>Strategic plan task force</td>
</tr>
<tr>
<td>3</td>
<td>Operations</td>
<td>Succession planning for CEO</td>
<td>Without effective succession planning, loss of the CEO would compromise Engineers Canada's ability to deliver due to lost knowledge</td>
<td>CEO leaves with no clarity in how this role will be filled&lt;br&gt;Key duties are neglected</td>
<td>Prevention&lt;br&gt;Mitigation</td>
<td>Board review in conjunction with CEO evaluation</td>
<td>HR Committee</td>
</tr>
<tr>
<td>5</td>
<td>Operations</td>
<td>Duty of care - Board</td>
<td>Inability to meet the required duty of care would lead to ineffective decision making and legal liability for directors</td>
<td>Lack of preparation to inform decisions&lt;br&gt;Length of time to make decisions is unnecessarily long&lt;br&gt;Lack of preparation or knowledge</td>
<td>Prevention</td>
<td>Self-evaluation and performance monitoring of directors, by directors.</td>
<td>Governance Committee</td>
</tr>
<tr>
<td>17</td>
<td>Operations</td>
<td>Investment market risk</td>
<td>Excessive risk in Engineers Canada investments would impact the fair value of future cash flows of reserve or investment funds.</td>
<td>Low market value of investments&lt;br&gt;Low rate of return of investments</td>
<td>Transfer</td>
<td>Monthly investment statements&lt;br&gt;Annual audit</td>
<td>FAR Committee</td>
</tr>
<tr>
<td>26</td>
<td>Strategic</td>
<td>Accreditation process</td>
<td>An ineffective accreditation process would cause loss of confidence by key stakeholders and withdrawal of higher education institutions from the accreditation process.</td>
<td>HEI or regulator withdraws from accreditation&lt;br&gt;Dissatisfaction of regulator with accreditation</td>
<td>Mitigate</td>
<td>Stakeholder feedback</td>
<td>CEAB</td>
</tr>
<tr>
<td>Risk #</td>
<td>Risk category</td>
<td>Title</td>
<td>Description</td>
<td>Symptoms</td>
<td>Risk response strategy</td>
<td>Monitoring method</td>
<td>Responsible</td>
</tr>
<tr>
<td>-------</td>
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<td>------------------------</td>
<td>-------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>28</td>
<td>Operations</td>
<td>AB and QB oversight</td>
<td>Lack of oversight of AB and QB could lead to disengagement with Purpose and strategic direction of Engineers Canada</td>
<td>Board observers do not contribute to AB and QB reports. AB and QB not in alignment with Engineers Canada strategic direction</td>
<td>Prevention</td>
<td>AB and QB reports to the Board</td>
<td>Governance Committee</td>
</tr>
<tr>
<td>35</td>
<td>Strategic</td>
<td>Holism of the federation</td>
<td>If any engineering regulator chooses to leave Engineers Canada, the value of the organization as a whole is diminished.</td>
<td>Dissatisfaction of the regulators. Lack of engagement of the regulators. Lack of participation of regulator staff or their volunteers or their directors.</td>
<td>Prevention</td>
<td>Stakeholder feedback. Relationship management</td>
<td>Board</td>
</tr>
<tr>
<td>43</td>
<td>Operations</td>
<td>Implementation of governance improvements</td>
<td>There is a risk that the organization does not implement or sustain the GSPC improvements (strategic plan, governance, accountabilities, consultation)</td>
<td>Lack of adherence to policies, accountabilities, plans or programs operationalized from GSPC</td>
<td>Prevention</td>
<td>Consultation program to track number of consultations and use of input. Journey to Excellence Program: Results of regular self assessments and external site verification visits (see leadership and planning drivers)</td>
<td>Governance Committee</td>
</tr>
</tbody>
</table>
**Engineers Canada – Organizational risks**

The following heat map includes risks that are the responsibility of Engineers Canada’s CEO meeting the following criteria:

- Risks that are currently in the yellow, orange and red areas of the map, and
- Risks that have shifted from a yellow/orange/red area of the map to a green area in this reporting period

Risks that remain in green, or that shift from one green area to another green area are not included.

The senior leadership team reviews these risks prior to each reporting period. The following scores have been adjusted:

<table>
<thead>
<tr>
<th>Risk</th>
<th>Description of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 - Resource utilization</td>
<td>Impact score reduced to moderate following the successful hiring and onboarding of executive assistants</td>
</tr>
<tr>
<td>10 - Staff retention</td>
<td>Impact score reduced to moderate to reflect the fact that recent turnovers did not lead to reduced morale or productivity</td>
</tr>
</tbody>
</table>
| 24 - Accuracy of website                       | Likelihood reduced to moderate as no significant misstatements have been uncovered in the past years
                                               | Impact increased to moderate given that misstatements have mostly been editorial and not significant                                                   |
| 27 - Internal support to staff                 | Likelihood score reduced to unlikely as internal services have been fully staffed for a few years                                                      |
| 29 - Business continuity                       | Likelihood reduced to low given the development of new emergency management plans and plans for future staff training                                |
| 40 - Critical HR information and corporate filings captured in paper documents only | Impact reduced to moderate as operations could continue, and the impact would be limited to additional resources to recreate the documents.          |
| 41 - Critical financial information captured in paper documents only | Likelihood reduced to low given that all documents are stored in a secured building and a fire-proof cabinet. Only a catastrophic event could destroy these records |
| 42 - Consultation program engagement           | Likelihood score reduced to unlikely as the work being consulted on has been requested by regulators                                                 |
### Legend – Risks included on the heat map

<table>
<thead>
<tr>
<th>Risk Description</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 - Resource utilization</td>
<td></td>
</tr>
<tr>
<td>4 - Succession planning for executive team</td>
<td></td>
</tr>
<tr>
<td>10 - Staff retention</td>
<td></td>
</tr>
<tr>
<td>14 - Breach of privacy</td>
<td></td>
</tr>
<tr>
<td>16 - Financial planning and monitoring processes</td>
<td></td>
</tr>
<tr>
<td>19 - Financial</td>
<td></td>
</tr>
<tr>
<td>24 - Accuracy of website</td>
<td></td>
</tr>
<tr>
<td>27 - Internal support to staff</td>
<td></td>
</tr>
<tr>
<td>29 - Business continuity</td>
<td></td>
</tr>
<tr>
<td>33 - Cyber attack</td>
<td></td>
</tr>
<tr>
<td>37 - PIEVC contracting and license agreements</td>
<td></td>
</tr>
<tr>
<td>40 - Critical HR information and corporate filings captured in paper documents only</td>
<td></td>
</tr>
<tr>
<td>41 - Critical financial information captured in paper documents only</td>
<td></td>
</tr>
<tr>
<td>42 - Consultation program engagement</td>
<td></td>
</tr>
</tbody>
</table>

### Risks being considered that are not included on heat map, due to ongoing green status:

- 6 - Duty of care - all staff
- 8 - Contracting
- 9 - Asset management
- 11 - Staff recruitment
- 12 - Travel policy
- 13 - Liability
- 15 - Inadequate internal controls - Fraud
- 21 - Adverse publicity
- 22 - Not-for-profit status
- 25 - Poor adoption of change
- 30 - Legislative compliance
- 31 - Trade-mark risks
- 32 - IT strategy
- 36 - Shadow IT
- 38 - PIEVC Divestment
- 39 - IRP Divestment
- 44 - Use of third-party service providers

Organizational risks located in the yellow-orange-red areas of the map are further expanded upon with suggested monitoring and response plans in the following table.
<table>
<thead>
<tr>
<th>Risk #</th>
<th>Risk category</th>
<th>Title</th>
<th>Description</th>
<th>Symptoms</th>
<th>Risk response strategy</th>
<th>Monitoring method</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Operations</td>
<td>Resource utilization</td>
<td>Loss of a key operational resource who is the single expert or point person for a program would lead to delays or decrease in services from Engineers Canada.</td>
<td>Loss of staff or reduction in ability to perform work</td>
<td>Prevention Mitigation</td>
<td>Employee engagement survey, Performance conversations, Informal feedback from HR, Working Group and staff 1:1</td>
<td>Director, HR</td>
</tr>
<tr>
<td>4</td>
<td>Operations</td>
<td>Succession planning for executive team</td>
<td>Without effective succession planning, loss of an executive team member would compromise Engineers Canada's ability to deliver due to lost knowledge</td>
<td>Executive team member leaves with no clarity in how this role will be filled, Key duties are neglected</td>
<td>Prevention Mitigation</td>
<td>Performance conversations, Weekly CEO:VP conversations</td>
<td>Director, HR</td>
</tr>
<tr>
<td>14</td>
<td>Operations</td>
<td>Breach of privacy</td>
<td>Breach of private data could lead to legal action and/or reputational, physical, financial, etc. harm to Engineers Canada and to individuals whose personal information is accessed.</td>
<td>Data breach</td>
<td>Prevention</td>
<td>Annual privacy survey done by staff</td>
<td>Legal Counsel</td>
</tr>
<tr>
<td>16</td>
<td>Reporting</td>
<td>Financial planning and monitoring processes</td>
<td>Ineffective financial planning and monitoring processes would lead to fiscal jeopardy</td>
<td>Overspending, Underspending, Budget items do not match priorities</td>
<td>Mitigate</td>
<td>Approval of budget and annual operating plan, Annual audit</td>
<td>Controller</td>
</tr>
<tr>
<td>19</td>
<td>Operations</td>
<td>Financial</td>
<td>Loss of a key income source would disrupt financial plans</td>
<td>Withdrawal of regulator, Insolvency of affinity provider</td>
<td>Prevention</td>
<td>Touchpoint meetings with affinity providers, including regulators, Review of affinity provider financials, Third party review of program financials, Heightened monitoring of policy retention</td>
<td>VP, CA &amp; SP</td>
</tr>
<tr>
<td>Risk #</td>
<td>Risk category</td>
<td>Title</td>
<td>Description</td>
<td>Symptoms</td>
<td>Risk response strategy</td>
<td>Monitoring method</td>
<td>Responsible</td>
</tr>
<tr>
<td>-------</td>
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<td>------------------------</td>
<td>-------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>33</td>
<td>Operations</td>
<td>Cyber attack</td>
<td>A cyber attack (hacking) would damage data integrity</td>
<td>Loss of data, Threats or extortion regarding data</td>
<td>Mitigate</td>
<td>24x7 monitoring systems (technology-based) and 7x24 monitoring of systems by staff.</td>
<td>Manager, Operational Infrastructure</td>
</tr>
<tr>
<td>37</td>
<td>Operations</td>
<td>PIEVC contracting and license agreements</td>
<td>Many PIEVC-related contracts and license agreements are complex and time sensitive and include consideration of terms requiring sharing of work product (normally a report) to manage the intellectual property. Follow up is required. Many PIEVC license agreements require returning or destroying copies of the PIEVC Protocol after completion of projects. This has not consistently been enforced because of lack of consistent resources and lack of a formal process for monitoring and enforcement.</td>
<td>Complex conditions affecting contract drafting and negotiations (e.g., time, budget, liability limits, intellectual property, different legal systems) Lack of follow-up on contract and licensing conditions</td>
<td>Prevention</td>
<td>Contract reviews and documentation of current and expiring license agreements are in progress as part of the transfer negotiation process. The inventory of expired and active agreements was updated in Q4. All new users are informed with respect to returning or destroying the protocol copies after projects are completed and to report this back to Engineers Canada. Follow-up on expired agreements was initiated in Q4 and will be completed in the next quarter.</td>
<td>VP, CA &amp; SP</td>
</tr>
</tbody>
</table>
**RISK REGISTER: Critical risk review summary**

<table>
<thead>
<tr>
<th>Risk: Financial</th>
<th>Risk number: 19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overview:</strong></td>
<td>Loss of a key income source would disrupt financial plans</td>
</tr>
</tbody>
</table>
| **Link to the strategic plan and policies:** | Board responsibility 3: Provide ongoing and appropriate strategic direction  
Board responsibility 5: Ensure the CEO maintains and acts on a robust and effective risk management system which reflects the Board’s risk tolerance level and directs Board-approved mitigation strategies  
Policy 5.6 planning: The CEO shall ensure that an annual operating plan and budget are in place that allocate resources in a way that aligns with the Board’s Three-Year Strategic Plan and that ensures fiscal security. |
| Date of risk becoming critical: | August 2019 |
| Projected date for risk reduction: | February 2022 |
| Prepared by: | Jorge Monterrosa, Controller |

**Background**
APEGA’s decision to exit the TD insurance affinity program, effective August 16, 2019, has increased the financial risk to Engineers Canada. Approximately 40% ($3.7M in 2019) of the total revenues generated by the TD affinity program result from the Alberta market.

Engineers Canada revenues will be directly affected with the reduction of TD sales in Alberta. APEGA will be marketing a new program from a competing insurance company to their members. Although TD has prepared a marketing plan to mitigate the effect of competition on the existing client base, it is too early to determine at what rate revenues will decrease.

Upon receiving notification of APEGA’s decision, the likelihood score of this risk was increased to 5 (Extremely likely) to reflect the departure of a participating regulator from the TD affinity program. In addition, the impact score has been increased to 4 (major – important, serious, or significant) to reflect that APEGA was one of the largest participants in the program and potential long-term impact for Engineers Canada.

**Actions taken**
- The Engineers Canada president and CEO have been in regular contact with TD.
- TD has designed a marketing/client retention campaign to mitigate the loss of the current client base in Alberta. This campaign has been reviewed by Engineers Canada management.
- The Finance, Audit, and Risk (FAR) Committee has been monitoring the situation closely through the review of monthly status updates and data provided by TD.
- In an effort to stabilize the situation and increase satisfaction amongst participating regulators, the Board passed a motion in September 2019 to authorize the CEO to adjust the sharing ratio for the distribution of TD sponsorship payments from 51/49% (Regulator/EC) to 90/10% for all new policies added to the program, commencing January 1, 2020 and onwards.

**Next steps**
- The FAR will continue to closely monitor changes to TD revenues in Alberta.
- Engineers Canada will continue oversight of the Alberta marketing campaign.
- Once the effect on revenues is better understood, adjustments as necessary will be considered in the 2021 budget process.
**Timeline for risk reduction**

The degree to which the marketing campaign will mitigate the anticipated reduction in sales is difficult to estimate. However, TD has advised they expect it will take up to two years for the market to re-stabilize. Consequently, we do not anticipate this risk moving out of the critical area before February 2022 when the affinity revenues stabilize resulting in a reduction of the risk’s impact score.
RISK REGISTER: Critical risk review summary

<table>
<thead>
<tr>
<th>Risk: Accreditation</th>
<th>Risk number: 26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview:</td>
<td>An ineffective accreditation process would cause loss of confidence by key stakeholders and withdrawal of higher education institutions from the accreditation process.</td>
</tr>
<tr>
<td>Link to the strategic plan:</td>
<td>Operational Imperative 1: Accreditation of undergraduate engineering programs Strategic Priority 2: Accountability in Accreditation</td>
</tr>
<tr>
<td>Date of risk becoming critical:</td>
<td>May 2017</td>
</tr>
<tr>
<td>Projected date for risk reduction:</td>
<td>Unknown</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Luigi Benedicenti, Chair, CEAB Bob Dony, Vice-Chair, CEAB Wayne MacQuarrie, Past-Chair, CEAB Mya Warken, CEAB Secretary</td>
</tr>
</tbody>
</table>

Background

In 2015, the CEAB accreditation criteria related to graduate attributes (GAs) and continual improvement (CI) became mandatory. HEIs have expressed concern that these criteria significantly increase workload and were introduced without a suitable evaluation framework, thereby introducing uncertainty. Despite this, it is our perception that HEIs believe the GA/CI system brings some advantages in terms of program assessment, and in some provinces, the GA process aligns well with mandatory provincial quality assurance processes.

Some HEIs were under the impression that the introduction of the GA/CI criteria would lead to the elimination of input measures (currently measured in “accreditation units” or AUs). Today, some deans suggest that the input measures should be eliminated in favor of moving entirely to an outcomes-based accreditation system.

In August 2016, a forum on the future of accreditation was held. At this forum, several changes to accreditation were suggested, including the elimination of AUs. These suggestions have formed a significant portion of the improvement work of the Accreditation Board’s Policies & Procedures Committee (P&P) ever since.

At the October 2016 annual general meeting of Engineers & Geoscientists BC, the then-dean of UBC again raised concerns with AUs and threatened to withdraw from the accreditation process. Subsequently, in early 2017, several deans formed a working group to investigate piloting their own alternatives to accreditation and AUs. At the same time, the P&P also launched a task force to investigate alternatives to the AUs.

These actions led to the creation and criticality of this risk, which was introduced at the “red” level in May 2017. The impact of an HEI withdrawing was deemed to be “catastrophic” given that it could lead to further withdrawals and threaten the value of accreditation, which is perceived as the highest-value work of Engineers Canada. The probability of such a withdrawal was rated “moderate” meaning that there was a reasonable expectation that it could occur. It remains at this level based on recent feedback and actions from the HEIs including: negative responses to recent consultations, pushback on recent changes, and a move to seek concurrent ABET accreditation.
Actions taken

Remembering that the primary purpose of accreditation is to serve the licensure needs of the regulators, the Engineers Canada Board and the CEAB are responding to concerns from the HEIs with the following actions:

1. **Efforts to reduce HEI workload associated with the accreditation process.**
   Examples: added flexibility in the visiting team schedule, the development of a web-based data management system to enable the submission and maintenance of accreditation documents (i.e. Tandem), increased focus on GA/CI process (and not data), reducing the documentation burden on HEIs.

2. **Increased communication with HEIs to alleviate fears regarding the accreditation process.**
   Examples: yearly summary of accreditation decisions/results, webinars to provide bi-annual updates to all HEI staff after each meeting of the engineering deans, monthly accreditation newsletter, attendance at and support for graduate attribute summits, attendance at and support for the Canadian Engineering Education Association annual meetings, meet-and-greet sessions between visiting team chairs (AB members) and representatives of the HEIs they assess, means for new programs to contact the CEAB secretariat for advice and guidance.

3. **Introduction of a structured and transparent consultation program to get feedback from regulators and all HEIs on proposed changes within the accreditation process.**
   The consultation program was applied to two consultations (AU Task Force Report and CEAB White paper) and will be used for the upcoming consultation on the Engineering Design working group report. Lessons learned have been recorded and will inform Engineers Canada’s organization-wide consultation program.

4. **Increased frequency and collaboration of the P&P with the Deans’ Liaison Committee, a sub-committee of the Engineering Deans Canada.**
   This has resulted in jointly-developed proposals and solutions to some of the dean’s concerns and provides a forum for issues to be raised and resolved.

5. **Creation of the AU Task Force**
   The AU Task Force considered an alternative to the AU and envisaged a linkage between the AUs and graduate attributes. The task force defined the “Learning Unit” (LU) as an alternate method to quantify engineering education curriculum and recommended that a pilot project be initiated to test the use of an LU. The proposed pilot was not supported by Engineering Deans Canada and the CEAB continues to consider how to address this recommendation. The P&P continues to discuss how to address the recommendation to appropriately link the AUs and GAs.

   Stemming from the task force’s work, an additional recommendation to reduce the number of AUs (with an intent to reduce student workload) and will be considered by the CEAB in 2020. This recommendation has received wide support from the HEIs.

6. **The development and progress on a strategic priority related to the accreditation process: Accountability in Accreditation.**
   This work recognizes the need to improve the transparency and effectiveness of the accreditation process. It will develop a means of annually assessing these attributes, from the point of view of regulators, HEIs, and others, and result in a means of tracking the trends and identifying future improvements.
Next steps
1. Continue communication, consultation, and collaboration as outlined above.
2. Conduct first measurement of the transparency and effectiveness of the accreditation process through the Accountability in Accreditation program evaluation in 2020. This will provide a basis for future evaluation of the probability of realizing this risk.
3. Continue to evaluate options and alternatives for AUs and the linkage between the input measures (currently the AUs) and output measures (the graduate attributes).

Timeline for risk reduction
It is unknown when the probability of this risk being realized will be reduced. Ongoing monitoring of consultation feedback, and results from each evaluation through Accountability in Accreditation, will provide the means to objectively monitor the sentiment of the HEIs and to estimate their likelihood of withdrawal.

Appendices
- [2019-2021 Strategic plan](#) (Strategic Priority #2, Accountability in Accreditation, on page 11)
- [CEAB 2020 Work plan](#) (page 94)
- Annual performance report (report on Strategic Priority #2, report on Accreditation included in this agenda book, page 97)
**RISK REGISTER: Critical risk review summary**

<table>
<thead>
<tr>
<th>Risk: Holism of the federation</th>
<th>Risk number: 35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview:</td>
<td>If any engineering regulator chooses to leave Engineers Canada, the value of the organization, as a whole, is diminished.</td>
</tr>
<tr>
<td>Link to the strategic plan:</td>
<td>Board responsibility 2: Sustain a process to engage with regulators through regular communication that facilitates input, evaluation, and feedback; Board responsibility 3: Provide ongoing and appropriate strategic direction;</td>
</tr>
<tr>
<td>Date of risk becoming critical:</td>
<td>Risk started increasing in September of 2018; was deemed to be critical in October of 2019</td>
</tr>
<tr>
<td>Projected date for risk reduction:</td>
<td>September 2020</td>
</tr>
<tr>
<td>Prepared by:</td>
<td>Gerard McDonald, Chief Executive Officer</td>
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</tbody>
</table>

**Background**

The initial increase of this risk in September 2018 stemmed from the events of the May 2018 Board meeting and Annual Meeting of Members (AMM) where regulators could not come to consensus on the optimal size of the Board. The risk was further exacerbated in mid-2019 and moved to the critical area when one regulator (APEGA) left the home and auto insurance affinity program and another (Engineers Nova Scotia) threatened to leave the federation if changes to the revenue-sharing formula were not implemented.

A further irritant was introduced in December 2019, when the affinity program provider, TD Insurance, indicated they had a different interpretation of the affinity agreement provisions regarding the exit of a regulator from the program. Depending on the outcome of this revelation it could have a significant financial impact on either Engineers Canada (EC), APEGA or us both. This has the potential to create tension between EC and APEGA.

**Actions taken**

The revenue-sharing formula of the affinity agreements was changed in September, so this aspect of the risk has been resolved.

The issue of Board size has been referred to the Governance Committee and a draft will be presented to the Board at its February 2020 meeting with a final version presented for consideration in May.

Regarding the affinity agreements interpretation issue, the Board and APEGA have been advised of the matter, a Board advisory committee has been struck, and legal expertise has been retained to provide independent analysis of the matter.

**Next steps**

Depending on the outcome of the Board size issue, the matter may then be referred to at a special Meeting of the Members scheduled in conjunction with the Fall Board meetings.

We will be responding to TD’s assertions and seeking an amicable resolution. However, there is a high likelihood that this matter will have to proceed through some form of dispute resolution process.

**Timeline for risk reduction**

It is not expected that this matter will move out of the critical zone before September 2020.