

THE ENGINEERING PROFESSION'S POSITION

- The engineering profession believes in a transparent, open, and equitable admission process for qualified internationally trained engineers to practise in Canada, in line with the principles of fairness, respect, and reciprocity.
- All practising engineers in Canada must meet the comprehensive requirements for licensure set by one of the 12 provincial and territorial engineering regulators, regardless of where they were educated or practise. This promotes the licensing of only qualified professionals who can demonstrate their ability to practise engineering with competence and integrity.
- Immigration-related legislation, policies, and programs must consider the engineering regulators' responsibility to protect the public by ensuring that all applicants for engineering licensure, including those who trained or practiced abroad, meet the same high standards for competence and integrity. This includes verifying the authenticity and validity of academic credentials, work experience, language proficiency, and ethical conduct. By upholding these high standards, the regulators can maintain public trust in the engineering profession and safeguard the health, safety, and welfare of Canadians.

The challenge(s)

The growing disparity between labour demand and supply in Canada, coupled with the increasing number of immigrants who can help fill that gap, presents a pressing challenge in recognizing foreign qualifications. The process, outlined in the "Pan-Canadian Framework for the Assessment and Recognition of Foreign Qualifications" by Employment and Social Development Canada, involves assessing the alignment of knowledge, skills, work experience, and education acquired in another country with the standards for Canadian professionals and tradespersons.¹ This challenge affects not only immigrants but also Canadians who have pursued education and experience abroad, emphasizing the need for effective policy measures to streamline the recognition process, integrate highly skilled individuals into the Canadian labor market, and optimize the allocation of talent resources.

More specifically, engineering is a regulated profession in Canada, and all those seeking engineering licensure in Canada must meet the same high standards for licensure, regardless of their education or work

experience. However, engineers trained outside of Canada may find it challenging to navigate the licensure requirements due to language barriers and the Canadian regulatory model.

The path to obtaining engineering licensure in Canada involves a comprehensive review of an individual's academic background, work experience, language proficiency, ethical standing, and character by the provincial or territorial regulator. These regulators work to promote the adherence of applicants to necessary educational standards and to safeguard the public from fraudulent academic credentials. They also assess that applicants to understand Canadian engineering codes and standards, and the legislation that impacts the practice of engineering in Canada.

Only professionals licensed by one of the 12 provincial or territorial engineering regulators are permitted to use the title 'engineer', regardless of where they completed their engineering degree. This emphasizes the regulators' commitment to ensuring that only competent and qualified professionals practise engineering and safeguarding the public's interests.

¹ Government of Canada (2022). A Pan-Canadian Framework for the Assessment and Recognition of Foreign Qualifications. <https://www.canada.ca/en/employment-social-development/programs/foreign-credential-recognition/funding-framework.html>

How Engineers Canada has contributed

The engineering profession in Canada acknowledges the important role that immigration plays in promoting economic sustainability and innovation. For over two decades, the profession has been at the forefront of facilitating the integration of skilled professionals into the Canadian workforce. In partnership with provincial and territorial engineering regulators, Engineers Canada works closely with federal departments to provide unbiased guidance on the integration of international engineering graduates into the profession. Additionally, we advocate for aligning federal requirements with provincial and territorial licensing processes to prevent duplication and ensure efficiency.

Engineers Canada facilitates dialogue among regulators to maintain consistency in licensure requirements and admissions practices. This includes developing and maintaining national guidelines for admission to the practice of engineering in Canada and promoting best practices for assessing credentials and recognizing qualifications earned outside of Canada. This promotes consistency and transparency in the admissions process, ensuring that only qualified individuals are licensed to practise engineering in Canada, and protecting the public from unqualified practitioners. The Canadian Engineering Accreditation Board (CEAB) ensures that undergraduate engineering programs at Canadian higher education institutions meet the education requirements for licensure set by provincial and territorial regulators, maintaining a list of accredited undergraduate engineering programs that regulators and the public can access to verify credentials. The Canadian Engineering Qualifications Board (CEQB) creates tools to assist in the fair assessment of applicant qualifications, including a publicly available national guideline for [admission to the practice of engineering in Canada](#), and develops [engineering syllabi](#) that reflect what is taught at accredited engineering programs in Canada. These syllabi are the basis for examinations used by regulators to assess the academic formation of those whose engineering degrees are not accredited by the CEAB. Finally, regulators verify and authenticate all academic documents to ensure their validity.

Regarding the academic requirements for licensure, it's important to note that each regulator evaluates the academic credentials of internationally trained applicants individually. There is some variation in how this assessment is conducted, as the approach to

academic evaluation is not uniform across the country. When it comes to individuals without an engineering degree recognized by the CEAB, their academic credentials are considered as follows:

Washington Accord

Engineers Canada is a signatory to [The Washington Accord](#), an international agreement recognizing comparable approaches and systems for accrediting undergraduate engineering programs. This allows for the expeditious review of an applicant's academic credentials by the engineering regulator and promotes familiarity with the education and accreditation systems of over 20 other countries. Those who have engineering degrees recognized by the Washington Accord are generally accepted in Canada as meeting the academic requirements for licensure.

International Institutions and Degrees Database

Engineers Canada maintains the International Institutions and Degrees Database (IIDDD) as a tool to help regulators assess the academic qualifications of international engineering graduates that are not recognized by the Washington Accord. This database provides up-to-date information about engineering programs from over 140 countries around the world, including background information about a country's education system and the legitimacy of specific institutions and degrees. The IIDDD has undergone several upgrades since its launch in 2009, with the most recent in 2021, which expanded its information to include quality assurance systems and the link between education and the licensing/registration system in each country, where applicable.

The Canadian environment experience requirement

Historically, all engineering regulators mandated that individuals seeking licensure fulfil a one-year Canadian experience requirement. This requirement aimed to guarantee that individuals were adequately exposed to Canadian culture, engineering codes, legislation, technical standards, and regulations. However, several regulators have recently substituted this one-year requirement with a mandate to demonstrate defined Canadian competencies. These competencies are a part of the competency-based assessment (CBA) process and must be demonstrated by all licensure applicants, both domestic and internationally trained.

Applicants who demonstrate these competencies through examples that occurred outside of Canada must also reflect on how their actions would differ if the work were conducted in Canada. If gaps still exist, and the competency has not been met, applicants may also need to complete the Working in Canada seminar and all assessments to demonstrate that they possess the necessary competencies to work in a Canadian engineering environment and acquire an engineering licence. The inclusion of these competencies, the Working in Canada seminar, and other alternatives allows greater flexibility for international engineering applicants and may permit them to acquire a licence without any Canadian work experience.

Competency-based assessment of engineering work experience

Engineers and Geoscientists British Columbia, in collaboration with Engineers Canada and other engineering regulators, have developed a CBA system to evaluate individual's engineering work experience. This assessment simplifies the licensure process by offering an online tool, enabling individuals to initiate the licensure process from anywhere in the world.

The competencies identified are measurable and observable skill sets, knowledge, abilities, motivations, and traits that applicants must demonstrate to acquire a licence. Many provincial and territorial engineering regulators throughout Canada have either implemented or are actively adopting CBA. The transition to CBA provides applicants with a clearer understanding of what is necessary to obtain licensure, resulting in more specific licensure requirements. CBA is also more objective, transparent, and consistent for individuals, providing them with specific and actionable feedback on how to improve their application in the event of an unsuccessful licensure attempt.

EngineerHere.ca

Engineers Canada recognized that international engineering graduates often face difficulties obtaining accurate and consistent information about the licensure process in Canada. To address this issue, Engineers Canada launched EngineerHere.ca in 2019, a web resource specifically designed to assist international engineering graduates in understanding the initial steps toward becoming an engineer in

Canada. The website was developed with input from engineering regulators, experts, and international engineering graduates, and has since been enhanced with licensure information in 11 different languages. Engineers Canada continues to update and improve the website to support the global audience.

Engineers Canada Mobility Register

The Engineers Canada Mobility Register serves as a platform for Canadian engineers who have met the international standard of competence for independent engineering practice to be included. Engineers Canada is not a regulator but plays a pivotal role in promoting recognition and mobility between member jurisdictions through its membership in the [International Professional Engineers Agreement \(IPEA\)](#) and the [APEC Engineers Agreement \(APEC EA\)](#). It's important to note that it is up to each provincial and territorial regulator whether to adopt these agreements. By utilizing the IntPE (Canada) and APEC Engineer designations, which are internationally recognized, the register facilitates a streamlined licensure process for engineers seeking mobility. As a founding member of these agreements, Engineers Canada actively promotes their value and usage to support the licensure of international engineering practitioners both within Canada and globally.

We acknowledge that the current system has its limitations, and we are committed to continuous improvement at both the national level and within our organization. We are actively taking steps to enhance our efforts and make further advancements in addressing these challenges.

Recommendations to the federal government

As part of its mandate to facilitate the integration of highly skilled immigrants into Canada, the federal government should proactively communicate the regulatory requirements for practising engineering in Canada to international engineering graduates. This includes setting clear expectations about the need for licensure in Canada to practise their profession and the regulatory requirements for practising engineering in Canada, including the importance of assessment by an engineering regulator, which is separate from the evaluations required for immigration. By enhancing international engineering graduates' understanding of these requirements and procedures, the federal

government can help reduce confusion and frustration during the licensure processes and ensure that international engineering graduates can make full use of their skills and expertise to contribute to the Canadian engineering profession and the Canadian economy. Furthermore, the federal government should work with regulators towards greater alignment between federal immigration processes and current engineering regulatory processes. For example, aligning language ability requirements of the [Federal Skilled Workers Program](#) with those set out by provincial/territorial regulatory bodies would be an initial step towards achieving this goal.

Additionally, ongoing engagement with regulated professions such as engineering is crucial as federal policies are implemented that impact the ability of provincial and territorial regulators to protect the public and integrate qualified internationally trained engineers into the Canadian profession. Continuous dialogue will ensure that these policies are implemented in a manner that benefits both the profession and the Canadian public.

How Engineers Canada will contribute

Engineers Canada is committed to collaborating with the federal government to maintain a robust, fair, and responsive immigration system that meets the economic needs of communities across Canada. In addition, Engineers Canada will continue to partner with provincial and territorial engineering regulators to ensure that the licensure process remains accessible, transparent, objective, impartial, and fair. Through this collaborative effort, Engineers Canada aims to ensure that all applicants, irrespective of their educational background or country of origin, fulfil the high standards required to safeguard the public interest and competently practise engineering in Canada.