



INTERNATIONALLY EDUCATED ENGINEERS: LICENSED, MOBILE, EMPLOYABLE

Of the thousands of immigrants arriving in Canada annually, many identify themselves as engineers. In 2001, of the 44 percent of skilled workers who identified an intended occupation at the time of immigration, 63 percent indicated engineering. These international engineering graduates (IEGs) may be seasoned engineering professionals, recent engineering graduates or have worked in jobs that would be considered technologist, technician, architect or scientist positions in Canada. Regardless of which group they fall into, some arrive in Canada expecting to begin work as engineers but are unable to find engineering employment and do not expect the process to become a licensed engineer to be so complex and lengthy.

The licensing system is very effective; witness the world-wide, excellent reputation of Canadian engineering and our high public-safety standards. This doesn't mean however, that it is flawless. The process may not be easy to understand and the rationale for some of the steps is not always clear to those trying to build a new life in Canada.

Engineering in Canada is a self-regulated profession with licensure being a provincial or territorial responsibility. There are more than 160,000 Canadian professional engineers and each has followed the same process: they have met education and experience requirements, passed a law and ethics exam (called the Professional Practice Exam), demonstrated that they are of good character, provided engineering references and shown that they have appropriate language skills. With small variations, this is the process followed in every province and territory. While students who graduate from accredited¹ engineering programs receive their iron ring, it is actually the P.Eng.² that signifies that the recipient is licensed and can call him or herself an engineer. IEGs can also receive an iron ring once they have been accepted by a licensing body as an Engineer in Training (EIT) or once they have their P.Eng., depending on the rules in their area.

IEGs are often portrayed in media reports as cab drivers, delivery people or fast food attendants. The engineering profession has always been disturbed by these reports because we recognize that anyone with the education and experience to be working as an engineer in Canada should be working to their full capacity. It was this situation that led to the creation of *From Consideration to Integration* (FC2I), a three-phase initiative³ designed to integrate IEGs into the Canadian profession and workforce without compromising public safety or lowering professional standards.

¹ The Canadian Engineering Accreditation Board evaluates Canadian engineering education programs to ensure that they meet or exceed the academic standards acceptable for licensure in Canada.

² ing. is the equivalent in Quebec and New Brunswick for francophones, while Eng. is used in Quebec for anglophones.

³ Fully funded by Human Resources and Social Development Canada (HRSDC), which was Human Resources and Skills Development Canada at the time.

Although only licensing is within the profession's scope of responsibility, FC2I also examined the roles that culture, language, employment and communications play in the lives of IEGs. Led by Engineers Canada, the initiative's Steering Committee had representation from federal and provincial governments, the engineering regulatory bodies, employers, immigrant-serving organizations, educators, engineers and IEGs themselves. This diversity of representation, the level of consultation and the holistic approach with which the engineers tackled the project, set it apart from other similar initiatives.

Phase I of FC2I looked at every aspect of the IEG experience, from taking the first steps to immigrate to Canada, to licensing, finding a job and all the elements of culture and language that accompany that journey. Phase II involved sorting, analyzing, validating and prioritizing that information so that the Steering Committee could draw conclusions. The 17 recommendations that came out of Phase II included the creation of a "working in Canada" seminar, building a database of recognized engineering degrees and creating a comprehensive, single source website. The Phase II report also recommended providing IEGs with a provisional licence once they have met all requirements for licensure except the one year of Canadian experience; developing a mentoring program; and determining which elements of the engineering licensing process can be done overseas, to speed the process after IEGs arrive in Canada.

Phase III, currently underway, is focused on implementing the Phase II recommendations; work continues in every region of Canada to assist IEGs with the integration process. Not only do the cases that follow offer concrete examples of how the engineering profession is helping IEGs, but they demonstrate a change in perspective on the part of the licensing bodies. In 2002, our national survey indicated that just over 12 percent of licensed engineers in Canada were foreign trained while our most recent member survey shows that has increased to just over 17 percent. Our licensing bodies recognize that ensuring a fair licensing system for all applicants is crucial for the integrity of the process.

For more information on FC2I, please visit www.engineerscanada.ca/fc2i.

Updates made to licensing system

The Canadian engineering profession has updated its licensing system to help the international engineering graduates integrate into the workforce and profession without compromising public safety or lowering professional standards. At the provincial / territorial level, examples include a new way of assessing academic qualifications in Saskatchewan that eliminated their backlog of applicants and a new method of assessing experience in New Brunswick that reduced applicants' waiting time. In Manitoba, applicants with 10 or more years of progressively responsible engineering experience can be interviewed with a view to having some or all confirmatory examinations waived, while in Ontario, new Canadians who apply for licensing within six months of their landing date, can do so at no cost. At the national level, Engineers Canada⁴ is leading the establishment of an accurate, current database of recognized international degrees and institutions to be used consistently by the provincial and territorial licensing bodies. It is expected that the database will reduce duplication of effort, resulting in a reduced processing time for international engineering graduates' applications.

⁴ Engineers Canada is the business name of the Canadian Council of Professional Engineers.

Canadian companies make hiring decisions every day. Each is looking for the best minds in the country to help build their businesses, expand knowledge and solve problems. That person may be an engineer, licensed in Canada but trained internationally. Licensed international engineering graduates are assessed to the same standards as each of Canada's 160,000 professional engineers, and they are mobile, able to work in any part of the country. Employers can hire these professionals with confidence, knowing that having a P.Eng. (or ing.) licence means that the Canadian engineering system has validated their academic qualifications, experience and character.

The engineering profession has recognized that making changes to the licensing system or to how we communicate about it, can take a long time but we are in this for the long term. We're proud of our achievements and we know that partnerships will help us reach new goals. Working cooperatively with government, the provincial and territorial licensing bodies, and with IEGs themselves will result in a stronger, more transparent process.