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R E S I D E N T ' S M E S S A G E

The international picture

WALTER K. BILANSKI, PHD, P.ENG.

PRESIDENT

I recently met with Engineers Ireland (the certifying body) in its facilities, a handsome house on Embassy Row with meeting rooms for workshops and “continuing education programs,” offices for a staff of 40 and a 130-seat auditorium.

In London, I visited the Institution of Mechanical Engineers (IMechE) and the Institution of Civil Engineers, located near the parliament buildings. Even more prestigious-looking, their buildings include an engineering library, displays relative to engineering, meeting rooms and fully equipped auditoriums. They are well used by staff, members and (for a fee) non-members.

Currently, IMechE member fees go 50/50 to programs for members and building upkeep; but they aspire in the next three to five years to devote 100 per cent to member programs (upkeep of the library, seminars, etc.). The building will be supported by IMechE’s publication business, space rentals, etc.

All three organizations said buying their present building was one of their best decisions. We are facing a similar decision: Do we buy quality, envisioning a landmark building with facilities (an engineering library and/or museum, auditorium, meeting rooms) for members to use and, when not in use by members, available (for a fee) to others? Or, do we look for something relatively inexpensive with room for the present staff and a modest increase for future needs? I favour the visionary approach (p. 13).

The seven universities and 12 institutes in Ireland graduate about 1400 engineers a year—and Ireland needs twice that number. Polish engineers are filling the void, to become the second highest ethnic group within the 40,000 engineers in Ireland. Only chartered engineers can construct buildings over five storeys and sign off on fire safety. Prestige of being chartered and the privilege of using the facilities of the institution with which one is chartered are the incentives to becoming chartered.

Engineers Ireland is becoming involved in international agreements to provide member access to as many countries as possible. “Belonging to international accords (Washington Accord, Bologna Accord) has the advantage of seeing trends and standards in other countries,” they said. The trend they see is toward a five-year engineering program, comprising a four-year bachelor of science degree in engineering plus a one-year master of science, providing the ability to carry out research and including a work period, which they are committed to achieving by 2013. They also want their engineers exposed to the humanities and social sciences, to be better able to deal with society’s needs. Engineers Ireland sets the “outcomes” (standards); the universities set the programs to achieve the “outcomes.” They are quite cooperative.

PEO should follow this example. As the licensing body in Ontario, we are responsible for setting the standards here. The engineering colleges will adjust their programs to meet our standards. The universities are interested in student numbers as this brings in revenue. **The quality of student registered as a P.Eng. is our responsibility.**

The IMechE staff and members we spoke with think their members are as good or better than those from the rest of Europe, and that they are already Bologna compliant; however, they indicated they “*may need to make some ‘broadening’ to appear compliant.*”

All agreed on these points:

- Standards must be kept high to compete globally. The present standards were sufficient for the past. Technology is becoming more complex, so standards must rise to cope with the new complexities;
- Both the Washington and Bologna accords advocate a master’s degree as a minimum for professional registration/certification;
- Among Canada, Great Britain, and Ireland, none can mass produce products because of high labour costs, requiring that we specialize and concentrate on high-tech and innovation; and

- Knowledge of and interest in engineering among school children is low.

Attention PEO Council and deans of engineering: The European Union and the US are looking into a five-year engineering program with a master’s degree as the minimum requirement for registration/certification.

Are we going to be left behind as the rest of the world, recognizing rapid technology advances in a global economy, looks for strategies to compete? Engineers in Ontario are now only a step above technologists. Instead of looking for ways to keep them from stepping up into the “engineering turf,” we should look for ways to **raise** the “engineering turf.” Many of our large corporations (Inco, Stelco) have been taken over by foreign corporations or have “disappeared.” As most research and development is conducted in a corporation’s home country, many engineering jobs are lost to Canada. The agricultural machinery industry (Massey, Case, White) is gone from Ontario. Because the basis of these problems rests with the federal government, we leave it up to Engineers Canada. However, when all the provincial associations meet together with Engineers Canada, many of the smaller provinces speak up more than PEO and show more leadership. They are promoting **their** priorities, which are not necessarily ours.

At our last Council meeting, David Zimmer, LLB, parliamentary assistant to the attorney general, said engineers must become more active **in** and **with** government: “You made a great first step with Bill 124, but don’t rest on those laurels; continue to be active in and with government.” Medicine and law constantly badger government for things of importance to them; **engineers haven’t shown this activism.**

Speaking of activism, it’s PEO election time! When reading candidates’ platforms and vita, read between the lines to determine which candidates are likely to have time to devote to their Council responsibilities. ❖