



Address to the Association of Professional Engineers and Geoscientists of B.C.

Minister of Advanced Education Murray Coell
Victoria
Saturday, Oct. 14, 2006

It's an honour to be giving the keynote address at APEG-BC's recognition luncheon again this year.

It's also the perfect time for me to do some recognizing of my own, on behalf of the Ministry of Advanced Education.

We appreciate the thoughtful leadership Bob Ito has brought to APEG-BC in the past year. Bob, your ability to look at the big picture, and the long term, has been a valuable contribution to the work APEG and government have done together on a variety of issues – from foreign credential recognition, to labour mobility, to legislation and professional regulation.

I know I'm speaking for many of my Cabinet colleagues as well, since APEG's activities embrace so many of our government's priorities, and fully two-thirds of government ministries rely on engineers' work in some capacity.

I'm also glad to be able to acknowledge Anne Garrett before she leaves APEG-BC to join her husband, Pete, in Seattle – and finally be on site to supervise the completion of their garden!

In the past three years, Anne has taken a strong and active role in promoting mobility for engineers and geoscientists, as well as being a champion for updating your legislation.

Anne, I want you to know that I am still committed to bringing that legislation into the 21st century, and that you've accomplished a lot in moving that agenda forward.

On the mobility front, you'll know about the progress we've made if you had a chance to listen to Economic Development Minister Colin Hansen here earlier in the week.

Our province – along with Alberta – is leading the way with Canada's most comprehensive internal trade agreement between two jurisdictions. Among other things, it will allow workers, goods, services and investments to move freely between our two provinces. This agreement creates Canada's most open and competitive economy, and eliminates duplicate procedures, credentials and regulations – and their associated costs. It's great news for every profession that spans the B.C.-Alberta border, including engineers and geoscientists.

We've been delighted that APEG-BC has approached this agreement with open arms. And we know it will help especially in the oil and gas sector, as well as with the many large projects being generated by our strong economy, and by the 2010 Olympics.

Another government focus that supports the engineering and geoscience fields is our 25,000-seat expansion of B.C.'s post-secondary system.

We're nearing the half-way point in funding these new student spaces at campuses around the province, including the institutions offering degrees required for APEG membership – UBC, UBCO, UNBC, the University of Victoria, Simon Fraser University, and BCIT – as well as the eight colleges taking part in the engineering transfer program.

To make room for this expansion, we've already provided more than a billion dollars for capital projects on campuses throughout B.C. since June 2001, and we've allocated almost \$800 million more over the next three years.

We need to make these kinds of investments because of the million jobs opening up in B.C. over the next decade, most of which will require post-secondary education.

In part, that's because of B.C.'s surging economy, reflected in such things as Canada's lowest unemployment rate, and the first triple-A rating from Moody's since the '80s.

We're also preparing for a wave of baby boomer retirements, and the increasing need for life-long learning as younger people prepare to fill the management roles being vacated by these experienced workers.

We know we've already invested wisely in our post-secondary system for the future. But we also know we need a roadmap to continue building on that system's strengths.

We live in a world of accelerating change – and post-secondary institutions must be able to respond to those changes. Educating engineers is a prime example.

I'm sure many – maybe most – of you in this room started your careers using a slide rule, invented way back in 1622 by William Oughtred, and used for well over 300 years. Then – about 30 years ago – computers began taking over the slide rule's function. Today, I think you'd be hard-pressed to find a student who even knows how to work Mr. Oughtred's invention!

This relatively recent change has had a profound effect on how we educate tomorrow's engineers. It used to be that recent graduates were hired for their abilities to calculate using the slide rule, so a lot of emphasis was placed on developing those skills during their schooling. It was only well into their careers that engineers would be called upon to demonstrate people and project management skills.

Today, engineers need those “softer skills” right up front. No one hires graduates just to do calculations any more – companies have computers for that, or they outsource to India or China.

So B.C.'s engineering schools now teach the broader professional skills that will prepare students for today's workplace. And many established engineers have headed back to school to take their second or third degree – often an MBA – or to do a master's certificate in project management.

Another way our engineering schools have adapted to change in the past is by embracing the concept of co-op education.

A couple of decades ago, there was no such thing as a co-op work term in engineering. Today, half of UBC's engineering students are benefiting from co-operative education. At UVic, engineering co-op work terms are mandatory – and master's and PhD students have that opportunity, as well as undergrads.

I hope some of you were able to visit the booths set up by UVic, UBC and BCIT during the convention on Thursday and Friday. They're a great way to learn how you can employ the skills of today's students, and about the lifelong learning opportunities available for those of you already working in the field.

I referred earlier to outsourcing as one of the new facts of life affecting engineering education. That's only one of the effects of international mobility.

Twenty years ago, virtually none of B.C.'s engineering students were from other countries. Over the past decade, this has changed dramatically.

The Ministry of Advanced Education encourages international students, for a variety of reasons. They enrich campus life by giving Canadian students insight into the differences between cultures. They often stay here after they graduate, contributing their skills to B.C.'s economy. And their ties to the countries where they grew up can form the basis for international business relationships that benefit people in this province – and around the world.

Another aspect of internationalization is the increasing number of foreign-trained engineers and geoscientists immigrating to Canada, and settling in B.C.

We appreciate the countless volunteer hours that APEG members put in to assessing their credentials. And we are looking for ways to rationalize the requirements for foreign-trained engineers to become qualified in this province.

We're also finding new ways to help engineers who speak English as a second language – and want to improve their communications skills.

Today, for example, 15 engineers educated in China, Russia, Iran, Colombia, Romania, Taiwan and Quebec are in class at Vancouver Community College doing a pilot ESL course launched last month.

Until December, they are meeting three times a week to enhance their command of English, and learn the communication skills that will allow them to use technical language correctly, work well on multicultural teams, and handle social situations on the job.

This new course is just one of several cutting-edge ESL programs for engineers offered by our public post-secondary institutions.

Those who are already employed will perform better on the job. And those still looking for work are enhancing their chances of finding work that makes full use of their education.

I'm very proud of these kinds of innovations in our public post-secondary system, which reflect the kind of forward thinking we need. But the fact that we're doing a good job today is only a foundation for success tomorrow – not a guarantee of it. That's why we've launched Campus 2020: Thinking Ahead.

We've seen major changes in the past couple of decades – like those I've just mentioned in engineering – and we expect to see even more in the years ahead. As those changes unfold, we want to be able to respond in a proactive way.

Campus 2020 focuses on producing a vision of the future of post-secondary education in our province. The process will look at the system as it exists today, and look forward to 2020, when children who just entered elementary school this fall will be engaged in their post-secondary education.

Campus 2020 will help us find out what we need to do now to make sure those kids have the best possible learning opportunities.

A wide range of people are being asked to contribute their thoughts about a new educational framework. We want input from students, faculty members, educational leaders, public and private educational institutions, Aboriginal and multicultural organizations, labour, business and the public. And I sincerely hope APEG-BC's members are contributing to this consultation.

Former attorney general Geoff Plant is special adviser to Campus 2020, and he will present a report to government in the spring of 2007.

Right now he's traversing the province, looking from the outside at the system, and making sure we hear from the people who are inside it.

Geoff has a group of highly regarded advisers to help him with Campus 2020: Harold Shapiro, a former president of Princeton University; Sara Diamond, president of the Ontario College of Art and Design; and Graham Smith, a prominent Maori education activist.

The consultation process is already generating spirited discussions about the role of the post-secondary system in contributing to the individual, economic and social goals of British Columbia.

By taking the time to ask wide-ranging, big picture questions, Campus 2020 is providing insight we will use to develop a framework for decision-making that will serve B.C. well for many years to come.

Campus 2020 is about building on successes. To build on them, you must recognize them, which is what I like so much about the awards APEG-BC gives out to its members every year.

I congratulate this year's winners for their contributions and accomplishments – and APEG-BC for making sure they get the applause they deserve.

I also want to say a few words about the importance of what I consider to be the flip side of the recognition coin – and that is regulation.

Policing and disciplining one's own members is the hallmark of a professional body that's come of age, and as such can be relied on to protect the public. As a government, we put a lot of faith in organizations like APEG-BC to fulfil their regulatory role.

We appreciate the challenges involved. But we also know that all the hard work pays off in terms of regard and reputation for your organization and its members.

I thank you for the work APEG-BC and its members do to support public safety. As I said when I spoke at last year's luncheon, most of us go about our daily lives with a very imperfect understanding of just how much your skills underpin almost everything we touch in the course of a day.

To the students here tonight, congratulations on choosing a field so important to individual British Columbians, and to the future of our province. To Tim Smith, congratulations on your election as president of APEG-BC. And to all the other APEG members who put in thousands of volunteer hours for your association, thank you for that dedication.

I look forward to working with APEG-BC over the course of the coming year on our shared priorities.

Thank you.

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