

Canadian Society for
Civil Engineering



Société canadienne
de génie civil



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Welcome

It's summer time and it's hot. I hope everyone is taking the time to relax and refresh. Kids are out of school and many are enjoying a traditional Canadian summer vacation – cottages at the lake, travel across Canada and abroad and the adventure that comes with these activities. I have been able to do a bit of reading. As expected the number of formal CSCE activities is somewhat reduced during this summer period. For this reason this e-letter is a little late and a little different than the regular format. I have been doing some thinking.

Motivation for a mission...

In contrast to this somewhat sedentary summer vacation season, mother-nature has sent some recent reminders that we live in a vulnerable world. In the wake of several extreme weather events, particularly in Calgary and Toronto in the past few weeks, a great deal of local and national attention had been paid to our infrastructure and its ability or inability to deal with these events. It is amazing to see the follow-up stories in our national press that have kept these issues in front of the public. Our politicians have weighed into the infrastructure debates. We have seen investigative journalists try to get to the bottom of the current functioning of our infrastructure, climate change and related topics. Sometimes these efforts

make me think... “Have they not been listening to us?” ...and “Why would they not simply ask the engineering community to help understand what is happening?” I usually answer myself... “We probably have not told our story in a consistent way that resonates and sticks with the average Canadian citizen”.

I have done a little extra-curricular reading this summer. A CSCE colleague and friend recently sent me an old book he found. It was a 1953 lecture from the University of Toronto’s Wallberg series. The lecturer, Dr. Robert F. Legget wrote eloquently to answer the question... “What is the special contribution which the engineer has to make to the Commonwealth, not just as a citizen but as an engineer?” It was a powerful message about the engineer’s responsibilities and stewardship of Canada’s resources... it was a message about sustainability. This was an amazing read. It is 60 years old and in terms of the message, it could have been written yesterday. I was left with one enduring thought – in the 60 years since Dr. Legget challenged the engineering community with our social obligations, we have not done enough! I have been a professional civil engineer for 38 of those 60 years. I have not done enough!

After reading the lecture I was quickly reminded of one of my first activities with CSCE when I was asked to be a facilitator for a series of town hall meetings on infrastructure – more than a dozen years ago. It was intended to be a ‘national conversation’ about infrastructure involving non-engineering participants – politicians, advocates, journalists, citizens. CSCE wanted to explore what the non-technical community thought and understood about infrastructure? You can imagine my reticence to take on such a task but finally did agree. And while it was an interesting series of town hall meetings, one in particular had a life impacting moment. It came in the form of a comment from a journalist who publically challenged me... no, challenged the entire engineering community, with these words “... *why would I listen to an engineer? When is the last time I heard an engineer say anything of social value? Engineers are nothing more than mercenaries. You get paid to say what people want you to say!*”

These words have haunted me for more than a decade.

It is a simple process to link the many headlines we read in our national and local press about infrastructure failures and extreme storm events, a 60-year old sustainability lecture, a challenge in terms of what society thinks about engineers today and the on-going infrastructure issues we face in our careers, into one defining statement.

We have a big job in front of us!

The mission...

In 2012 CSCE adopted Vision 2020 and it includes three strategic directions

1. Enhancing member services
 2. Growing with youth
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3. Leadership in sustainable infrastructure

To some these may seem to be self-serving strategies. They were, after all, developed with a goal to strengthen CSCE as an organization. May I challenge that thought by simply adding how important it is for CSCE to become a stronger organization.

CSCE is a respected learned society in the Canadian mosaic. We represent the discipline of civil engineering. We are a significant stakeholder in the infrastructure community. We have been responsible for the use of Canadian resources in developing these infrastructure systems. Our members are involved directly or indirectly with many facets of the core infrastructure systems that support Canadian lifestyle and commerce – research, education, planning, design, construction, operations, policy, regulation – the list goes on.

As an organization we have chosen to be leaders in sustainable infrastructure. At the same time we must remember that we are not the only infrastructure stakeholder in Canada. It is, therefore, imperative that we strengthen CSCE and the civil engineering community to be able to be given the appropriate level of recognition, amongst our peers and society at large, to gain attention and listening ears when we speak, when we advocate, when we offer opinion.

Why should I listen to an engineer? When is the last time I heard an engineer say anything of social value?

What is the special contribution which the engineer has to make to the Commonwealth, not just as a citizen but as an engineer?

CSCE must become stronger. To be stronger we need more civil engineers to engage with CSCE. To earn additional interest in the vision and work of CSCE we must be diligent in implementing our vision. Every aspect of our vision is important to meet our goal.

The goal of CSCE's Vision 2020 is strengthening our organization. For what purpose one might ask? The answer is clear... to be effective in being a societal leader in responding to the challenge of global sustainability. Our platform is infrastructure. This will require a vision for global sustainability focused on infrastructure.

If we are to achieve global sustainability every nation must ensure we consume energy and resources to the level that our earth has available as we strive to improve the lifestyle of global citizens. Engineers have an obligation in terms of our stewardship of these resources. If Canada is to be a sustainable country our communities need to be sustainable. If our communities are to be sustainable they must be founded on sustainable infrastructure. We are only beginning to understand what sustainable infrastructure means.

And so, beyond CSCE's own Vision 2020 is the larger mission – the development

of a national infrastructure action plan for sustainability and CSCE's role in this endeavour.

There will be more about this in future writings. I offer an opportunity to our Society members and other civil engineers in offering any thoughts in response.

Did you know?

The Institution of Civil Engineers was founded as the world's first professional engineering body with an inaugural meeting held January 2, 1818 in Britain. At that time, formal engineering in Britain was limited to the military engineers of the Corps of Royal Engineers. Thomas Telford was appointed the first President of the body in 1820. Greatly respected within the profession and blessed with numerous contacts across the industry and in government circles, he was instrumental in drumming up membership and getting a Royal Charter for ICE in 1828. This official recognition helped establish ICE as the pre-eminent organisation for engineers of all disciplines. The Legget lecture (1953) references Telford as having penned the charter statement of ICE regarding the definition of civil engineering.

"The general advancement of mechanical science, and more particularly for promoting the acquisition of that species of knowledge which constitutes the profession of a civil engineer; being the art of directing the great sources of power in nature for the use and convenience of man, as the means of production and of traffic in states, both for external and internal trade, as applied in the construction of roads, bridges, aqueducts, canals, river navigation, and docks, for internal intercourse and exchange; and in the construction of ports, harbours, moles, breakwaters, and light-houses, and in the art of navigation by artificial power, for the purposes of commerce; and in the construction and adaptation of machinery, and in the drainage of cities and towns."

I cannot help but see the elements of sustainability in this statement.

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