

**Standing Committee on Finance and Economic Affairs
July 30- 4-5pm**

Thank you for the opportunity to share the perspective, knowledge and experience of Ontario's Engineers, this afternoon. My name is Sandro Perruzza, and I am the CEO of OSPE, the Ontario Society of Professional Engineers.

We are the voice of the entire engineering community. This community represents over 300,000 professional engineers, engineering graduates, internationally trained engineers and engineering students, who work in virtually every single sector of Ontario's economy, including infrastructure.

The simple truth is that Engineers generate wealth for the province, through the development and commercialization of new technologies and by designing innovative and sustainable solutions that benefit all Ontarians. Engineers also ensure safety and stability, by designing resilient infrastructure, reliable energy grids and clean water systems that Ontarians rely on daily.

During this pandemic, engineers have led the redesign of manufacturing processes to create much needed Personal Protective Equipment (PPE) and ventilators. They are in the med-tech industry working diligently to bio-engineer new medications and develop vaccines to combat COVID-19. OSPE also donated masks and sanitizer to front line workers to show support to our community.

The engineering community has been severely impacted by this pandemic, as thousands of engineering jobs were lost that were directly linked to the infrastructure, manufacturing, technology, research and innovation sectors. This talent will be needed in rebuilding the engine that drives not only Ontario, but the rest of the country. As such, the province must support the engineering community if it wishes to capitalize on their economic recovery efforts.

It is imperative that new funding allocations provide a sustainable benefit for diverse, future generations by ensuring a targeted focus on **sustainable infrastructure, talent development and retention, and fostering innovation.**

Here are a few of our recommendations:

- 1. Invest in shovel worthy projects by developing a comprehensive project investment pipeline document. This must be informed by currently regulated municipal asset management plans.**

Recent studies by the University of Maryland and by CANCEA in Ontario have estimated that every dollar invested in infrastructure returns approximately \$3.70 in economic growth over 20 years.

Developing a comprehensive project investment pipeline document, which is informed by current requirement for municipal asset management plans, will prioritize the projects that are both ‘shovel-ready’, and ‘shovel-worthy’. These projects will provide a positive return on investment, as well as, deliver localized social and community benefits.

2. Support small and medium sized engineering firms by tackling increasing liability insurance costs.

Engineers support the provincial and federal government’s approach to focus immediately on “shovel-worthy” infrastructure, we mentioned above.

However, to achieve this, engineering firms must be able to compete in the market. Currently, insurance providers consider Ontario a high-risk jurisdiction. These changes have not only resulted in the significant increase in the cost of professional liability insurance, but also in commercial, general liability and property insurance. More dramatically, it has resulted in some engineers and firms being denied access to any insurance coverage whatsoever.

Without access to coverage, small to medium sized engineering companies can not operate in the province and have shut down. This decreases the amount of infrastructure that can be designed and thus built, stunting economic growth. Let me repeat, without the market capacity to design the infrastructure we so sorely need and will depend on for our economic recovery, there will be no infrastructure to build. The liability insurance issue is the sleeper issue no one is talking about and will have the biggest impact on economic recovery in this sector.

3. Accelerate the electrification of the transportation system, including Electric Vehicle (EV) adoption.

Ontario should work towards a safe, green, innovative, and integrated transportation system that is able to support a clean environment, while boosting trade, economic growth, and public safety. Investing in EVs provides the opportunity of achieving short-term results, while allowing clean sectors to grow sustainably and substantially, over a relatively quick timeline.

4. Modernize Ontario’s Building Code.

The National Building Code (NBC 2020) and the National Energy Code for Buildings (NECB 2020) contain new guidelines for energy efficiency in homes, small buildings, industrial, commercial and institutional properties. **Ontario should adopt these sections of the National Building Code and National Energy Code for Buildings into the**

Ontario Building Code (O.Reg. 332/12) and define clear steps and milestones to achieve a NZER (Net Zero) building code by 2030.

By doing so, not only would Ontario decrease its carbon footprint, but would also create new jobs, build new energy efficient buildings, allow for a retrofits market, and reduce energy costs for homeowners and tenants.

5. Invest in talent development, knowledge training, and supports for Ontario's engineers.

Ontario must invest in engineering talent across the province. One of the primary barriers to innovation and growth is the access to a talent pool that possesses the skills needed to adapt to the future economy. Prior to COVID-19, some of Ontario's most strategic sectors, such as infrastructure and transportation, were already facing a talent-gap in their engineering departments.

Engineering projects were being awarded to international firms because Ontario did not have the right talent to do the work. The success of the economy depends on the ability to match talent with job vacancies and to ensure that this talent can adapt to market demands. This problem is now magnified by increased demands for more technologically equipped engineers, due to market capacity challenges caused by the current crisis. Every jurisdiction is investing in infrastructure because they know it works. There is fierce international fight for talent... and we are losing.

We are simply not developing the engineers we need for the future. The Engineering Regulator, Professional Engineers of Ontario (PEO), has yet to design and implement a Continuous Professional Develop Program for licenced engineers. This is not only an economic imperative, it is a public safety issue, as identified in the public inquiries into the Algo Mall collapse in Elliot Lake, and the Radiohead Stage Collapse at Downsview Park.

6. Invest in Ontario's Mining Infrastructure

Mining is the backbone of the Ontario economy. This industry produces around \$10 billion in revenues for Ontario per year and employs over 75,000 Ontarians. Mining is also the largest private sector employer of Indigenous people.

The Ring of Fire region of Northern Ontario is an immense and untapped economic opportunity. The development of this region will also provide enormous long-term benefits to northern communities through increased economic activity and job creation. To realize the full economic potential of The Ring of Fire, the government must prioritize key investments in core infrastructure, as well as ways to address the training needs of the labour market and local Indigenous communities.