

Leading a Canadian Future
The New Engineer in Society



L'avenir de la société canadienne
façonné par le nouvel ingénieur

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THE NEW ENGINEER IN SOCIETY

A declaration by Canada's engineering profession

The Montreal Declaration

**Issued at the National Engineering Summit
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Hosted by the Canadian Engineering Leadership Forum:

- Engineers Canada
- Association of Canadian Engineering Companies (ACEC)
- Canadian Academy of Engineering (CAE)
- Canadian Federation of Engineering Students (CFES)
- Engineering Institute of Canada (EIC)
- National Council of Deans of Engineering and Applied Science (NCDEAS)

The National Engineering Summit 2009

The first-ever National Engineering Summit, held in 2009, brought Canadian engineers together with experts from a broad range of sectors and disciplines to consider key trends, critical issues and future projections related to health, the environment, safety and security, global competitiveness and quality of life.

Two days of presentations and discussions afforded an unprecedented opportunity for the engineering profession to identify how it can contribute to a healthier, cleaner, safer, more competitive and sustainable Canada—to apply its leadership, leverage the strengths of its various disciplines, and prepare the next generation of engineers for the challenges to come.

Engineers: The enablers of dreams

Engineers play a key role in our societal development, contributing to and enabling initiatives that drive economic progress, enhance social and physical infrastructures, and inspire the changes that improve our quality of life.

The following declaration expresses the profession's resolve to help ensure Canada and its citizens thrive and prosper—today and into the future. The Canadian Engineering Leadership Forum (CELFF) commits to play a central role in enabling the profession to achieve these ends—by providing direction and fostering collaboration.

Our profession's commitments

Carrying forward the learning objectives of the National Engineering Summit we, Canada's engineers, pledge to:

1. Deliver Canadian engineering innovation domestically and to the global community
2. Deliver specific engineering capabilities that will be needed in the future to improve health and safety, provide for a cleaner environment, and enable more sustainable development
3. Address areas in which advocacy by the engineering profession can lead to public policy development and directly contribute to Canadians' quality of life
4. Make educational enhancements that will encourage broader participation in the profession by all segments of the population and foster innovation

At a high level, we acknowledge that we must:

- Pursue greater collaboration across disciplines and professions
- Increase engineers' influence in policymaking
- Reexamine our accreditation process
- Transform engineering education and practice
- Encourage the greater participation of underrepresented groups such as Aboriginal Peoples
- Attract and retain women in much greater numbers

Emerging from the Summit, the profession will take collective action in the following areas.

HEALTH

Understanding that:

- Engineering has a role to play in accommodating the changing needs of Canada's aging population
- We must appreciate the connection between engineering and evolving population demographics, health and the environment
- We must incorporate biology and study of the social determinants of health into our curriculum
- We need to better understand the implications and effects of government policies
- We need to be more socially aware to address the unique issues facing individuals in our society

ENVIRONMENT

Understanding that:

- Engineering supports the harmony between human life and the environment
- Energy offers the opportunity for Canada to achieve a sustainable competitive advantage
- A national energy grid is essential to derive the greatest benefit from our energy resources
- Engineering has a critical role to play in rapid adaptation to and mitigation of climate change
- A focus on adapting infrastructure is required to reduce the carbon footprint in our communities
- A national, comprehensive water management strategy is required

GLOBAL COMPETITIVENESS

Understanding that:

- Engineering must be committed to lifecycle design
- We must continue to actively promote and embrace a culture of sustainability
- We must test regulations, codes and standards against policy goals to ensure they are strategically coherent, and we must foster innovation
- R&D and its commercialization are essential to the Canadian economy
- Engineers must focus on core areas of strength such as information and communications technology, environmental engineering and technology, and health and life sciences
- We must encourage the entrepreneurial spirit of Canada's engineers
- Collaboration with First Nations, Métis and Inuit people will be essential to seizing development and economic opportunities across Canada

SAFETY AND SECURITY

Understanding that:

- Safety of the public is of paramount concern to the industry
- We need to enhance the safety of infrastructure and facilities to manage risks to society and workers and minimize the public's vulnerability
- We have a role to play in addressing the threats of cybercrime and identity theft
- Engineers must continue to develop technologies critical to maintaining national security
- Energy security is critical to Canada, and we must manage our existing resources and explore sustainable options for the future

QUALITY OF LIFE

While the profession of engineering itself is largely invisible, its impact is visible all around us: in the built environments of our cities and towns; in our infrastructure; in our technology; in the ways we work and the systems we rely on to remain safe and secure. As a profession, we are committed to helping provide the best possible quality of life for all Canadians, with the understanding that it is the international measure of Canada.

Maintaining momentum

Through the Canadian Engineering Leadership Forum (CELFF), Canada's engineering profession has the ability to set collective direction and coordinate activities to a greater degree than ever before possible. CELFF was created specifically to help steer the profession and implement its vision, providing Canada's engineers with the capacity to realize their strategic vision together. CELFF will provide guidance and foster cooperation as Canada's engineers act on the opportunities identified at the National Engineering Summit. As a first step along that path, the member organizations of the Forum will adapt individual strategic plans in recognition of Summit findings.

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