



ABB's new Canadian headquarters in Montreal is a hub of intelligence and electric R&D. ABB photo

Industry: Our Hidden Digital Champion

Nathalie Pilon

As Canadian industries adapt to the Fourth Industrial Revolution, digitization is transforming every aspect of our lives, from interpersonal communication to culture to politics. ABB, a Swiss-based multinational that works with utility, industry, transportation and infrastructure clients transitioning to renewable energy, is on the leading edge of this revolution. ABB Canada President Nathalie Pilon provides her perspective on innovation from the front lines.

In the digital sphere, community is instant. We are living through an information technology revolution set against a context of sustainability, energy concerns and the Fourth Industrial Revolution—the meshing of the digital world of people and machines as internet meets production. This is our ever-evolving workspace, where technology accelerates growth and innovation like never before and more than ever we aim to create a Canada whose people,

technology and innovation ecosystem can compete on the global scale. Never has there been a better time for leaders to adopt sustainable business practices by taking ownership of the digital space and becoming connectors, and for the federal government to support our digital economy and its players.

As a Canadian with 20 years of experience in the world of manufacturing, I have a particular interest in our industrial sectors. Our workforce sees the products of digital innovation everywhere. 3-d printing has revolutionized how we produce plastic components. Additive manufacturing will take the printing of steel or any metal products to unprecedented levels. Already we've seen the electrification of transport, adoption of cloud technologies, the whirl of Industry 4.0. Innovation continues to grow as we unlock the digital realm.

In fact, McKinsey Global Institute tells us that the Fourth Industrial Revolution's internet of things, services, and people represents an \$11.1 trillion business opportunity within the next eight years—more than 10 percent of global GDP. On top of that, we are learning that digital allows full transparency and encourages efficiency, productivity and knowledge.

This is good news for industries that have already incorporated software and automation into their operations and processes, but despite digitization's deep penetration in the media, retail, and high-tech sectors, less than 40 per cent of global industry in general is currently digitized, according to McKinsey. Manufacturing needs to join the digital world, and this transition deserves attention from our government as it progresses. Supporting development, modernization, and digitalization in industry will help to secure Canada's future as a valuable player on the digital field.

After all, Canada has what it takes to become a digital champion, and our industrial sectors are overflowing with un-

“ McKinsey Global Institute tells us that the Fourth Industrial Revolution's internet of things, services, and people represents an \$11.1 trillion business opportunity within the next eight years—more than 10 percent of global GDP. ”

tapped potential. Companies like my own can be hidden champions. At ABB, our 70 million connected devices, embedded with software, have a presence in more than 100 countries. In Canada, we employ 4,000 Canadian experts in power and automation in more than 50 locations coast to coast, leading in our technology supply to utilities, to industries and for infrastructure. From high voltage direct current systems for Hydro Quebec or the Maritime Link, which allow the transmission of electricity over thousands of kilometres with little energy loss, to energy efficient mining hoists in Saskatchewan for Potash, or electrification systems that power intelligence and control for Oil and Gas pipelines such as for our customers TransCanada and Suncor among others, or robots and automation for manufacturing that today are instrumental to maintaining and re-shoring jobs for our industries in Canada. We are embracing the digital shift and have built a solutions and services platform—called ABB ability™—with Microsoft's azure cloud and IBM's Watson analytics as key components. Digital innovation is helping us to move more securely into a future that includes the electrification of public transport, remote performance diagnostics for ships and oil rigs, and a complete transformation of industry as we know it.

With so much connection potential in industrial installed bases, Canada's next adventure is to consider how our industries can be supported in complete digital transformations—reinventing fundamental value propositions, business models, business processes, technologies, and the human element inside a context or network of intelligently planned

infrastructure that supports energy efficiency, zero waste, and reduced emissions. With our geography of nearly 10 million square kilometers filled with valuable natural resources, 36 million people and the world's longest coastline, it is essential to have a national strategy that supports our industrial players to compete with digital and an export infrastructure that is energy efficient and intelligent.

“ With so much connection potential in industrial installed bases, Canada's next adventure is to consider how our industries can be supported in complete digital transformations. ”

Furthermore, billions of dollars of investment are required to update and modernize our energy infrastructure simply to maintain current levels of reliability and safety performance, without even taking into consideration the increased investments required to integrate a future energy world that incorporates LEED buildings, new infrastructure for vehicle to grid demand supply, EV charging networks for cars or larger flash charging systems for electrical buses and trains. This goes to the heart of creating a sustainable and competitive economy for Canada.

The transformation is a strategy for building our industries as important pillars in a planned infrastructure



Clean tech such as solar electricity panels is part of “the whirl of Industry 4.0”, now moving into the digital revolution, writes ABB Canada President Nathalie Pilon. *ABB photo*

that focuses on delivery, transport and export, with information from rapidly accelerating progress in open-source software, sensing technologies, big data, artificial intelligence, automation, machine learning, expert systems, and communications.

The technological innovations that

have been changing our lives as consumers since the beginning of this century are now being applied to the industrial space. As entire industries are transformed, it is important for the federal government to support our economy and its players on policy and to support innovation in industrial work spaces. Leaving the

road open for innovation in the industrial sectors and supporting this ongoing advancement will help us to step confidently into the future.

The changes we’re facing are, quite simply, unlike anything we have come across before: in the types of products we create, the services we offer, the value we deliver, the nature of the new competitive advantage we will seek, the engagement models with customers, and—perhaps most importantly of all—the metrics and perspectives by which our customers view this challenge as a pass/fail test.

If we embrace this digital future intensely and strategically and view it through the lens of what customers want and need to succeed in their own rapidly evolving businesses, we stand an excellent chance of leading our country into an exciting new era of innovation, growth, opportunity, and success. **P**

Nathalie Pilon is President of ABB Canada.

GOVGUIDE.ca

YOUR ESSENTIAL RESOURCE FOR THE HILL

- Searchable database on all MPs and Senators
- Calendar
- Daily legislative brief



Contact Yamina Tsalamlal: yamina@ipolitics.ca or 613.505.0865