

Canadian Politics and Public Policy

Policy

A photograph of three scientists in a laboratory setting. A man in the foreground, wearing a white lab coat, safety glasses, and purple gloves, is using a pipette to transfer liquid into a white basket. Two other scientists, a man and a woman, are looking on. The man is wearing safety glasses and the woman is wearing safety glasses and a lab coat. The background shows laboratory equipment and a window with blinds.

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au Canada : en célébrant nos
réalisations et en offrant une
plateforme qui permet aux
innovateurs de tisser des liens.

INNOVATION



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Policy

Canadian Politics and Public Policy

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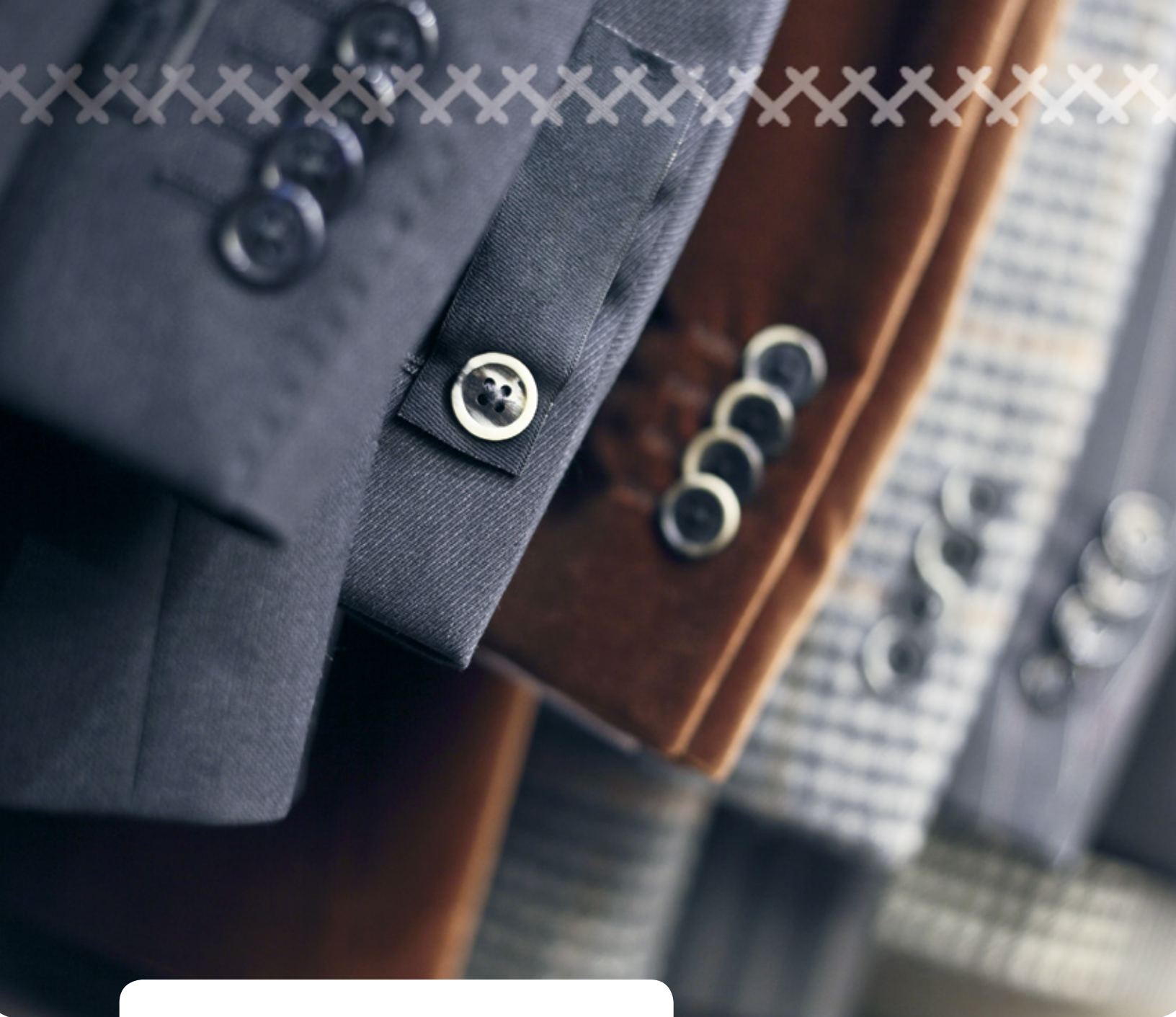
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From the Editor / Lisa Van Dusen

The Innovation Issue

Welcome to our annual *Policy Magazine-Rideau Hall Foundation Innovation Issue*. For the third year in a row, we've had the pleasure of producing this issue with the exemplary team of professionals at the RHF, including Director of Innovation Barbara Gibbon, Innovation Manager Mila Pavlovic and Innovation Manager Amy Mifflin-Sills. This is the one issue on the Policy editorial calendar that, in what has become a spring ritual, I dislodge L. Ian MacDonald from his editor's chair and take over.

The Rideau Hall Foundation is just one element of the considerable legacy of former Governor General David Johnston but it is an important one. An independent, apolitical charitable organization established to mobilize ideas, people, and resources across the country to spotlight and reward innovation, the RHF works closely with the Office of the Governor General and its national network of partners to foster Canadian ingenuity.

This year, our issue opens with David Johnston's own piece, *Innovation Equations*, in which the former Governor General, with typical generosity, shares the innovation intelligence he's gathered over decades as principal of McGill University, president of University of Waterloo, Governor General and chair of the RHF. In *The Innovation Imperative*, federal Innovation Minister Navdeep Bains outlines how the government of Canada has responded to the challenge of competing in a new global context of perpetual innovation. And, to fill us in on how Canadians feel about the question, Gibbon reports on the results of the RHF's inaugural *Culture of*

Innovation Index, produced in partnership with Edelman Canada, in *Canada's First Innovation Barometer*.

In Step One: Mindset Shift, RHF President and CEO Teresa Marques and President and CEO of CanadaHelps Marina Glogovac warn that crowdfunding and other factors have created a funding crisis in the traditional philanthropic sector. Meanwhile, governments are innovating their regulatory approaches. Former Privy Council Clerk and BMO Financial Group Vice Chair Kevin Lynch teamed up with business historian Laurence B. Mussio on *Big Tech: Monopoly's Second Moment?*

Every year, the Rideau Hall Foundation presents the Governor General's Innovation Awards to outstanding Canadian individuals, teams and organizations who "contribute to our country's success, who help shape our future and who inspire the next generation." This year, the six GGIA recipients are profiled by Jacqueline Milczarek in *Celebrating Canadian Innovators*.

Some of the world's most ingenious innovators live closer to the Great Rift Valley than the San Andreas Fault, and many of them are women. MATCH International Women's Fund President Jess Tomlin's piece—*Mother of Innovation*—is a must-read look at how women around the world are finding solutions to everyday problems. In *The True North Mission: Slow Down and Fix Things*, Communitech CEO Iain Klugman describes the principles behind True North 2019, the upcoming gathering in Waterloo organized to "tackle the important issues that exist at the intersection of humanity and technology and set tech back on

its path of promise." Paulina Cameron, CEO of the Forum for Women Entrepreneurs, explains what's required to boost women from potential to success in *It Takes a Network*.

And, a young Canadian who embodies the true spirit of innovation, Maayan Ziv. Ziv, 28, transformed her own experience of living with muscular dystrophy into the award-winning app *AccessNow*, which maps venue accessibility around the world. Policy Social Media Editor Grace MacDonald interviewed Ziv for our closing Q&A.

We open our *Canada and the World* section this issue with *The Last Piece on Brexit?*, in which former ambassador of Canada to Britain, Russia and the EU and now our senior foreign policy writer Jeremy Kinsman gamely dives into the UK's rolling divorce disaster with his usual mix of unique insight and wry passion. Jumping from London to Kyiv, our Ukraine ace, Yaroslav Baran, filed the brilliant *Unscripted: The Serious Stakes for Ukraine's New Leader*, his take on comedian-turned-president Volodymyr Zelenskiy. Pulling up to 30,000 feet on the future of democracy generally, chair of public policy at Massey College Tom Axworthy makes *The Case for Canada Advancing Democracy*. And, bringing the finale with his usual aplomb, our columnist Don Newman with *How Climate Change Could Impact Post-Election Power in Ottawa*. For those of you wondering at Newman's prescience, a reminder that he did lay out the anatomy of Donald Trump's stunning 2016 upset in these pages two months before it happened.

Enjoy the issue. **P**



Former Governor General David Johnston spent much of his career immersed in innovation in his academic and vice-regal roles before giving back to innovation by launching the Rideau Hall Foundation. *Adam Scotti photo*

Innovation Equations

Part of Governor General David Johnston's substantial legacy has been the way in which he has shared so much of what he learned in his vice regal role over seven years with Canadians and the world. Here, the man who launched the Rideau Hall Foundation to encourage Canadian innovation offers three prescriptions for businesspeople, policymakers and institutional leaders to move their organizations and our country from diversity to inclusion to a sustainable culture of innovation.

David Johnston

What image comes to mind when you read or hear the word *innovation*? Many of us conjure up the sight of person—usually a man. Perhaps he's Leonardo sketching the blueprint for a flying machine. Or he's Edison hunched over a workbench littered with tools, wires and gadgets. Or he's Einstein seemingly lost in thought as he searches for fundamental truths about the elusive nature of the universe. Whoever he is,

he is a solitary individual whose curiosity moves him to reject convention and conceive of a new way of thinking or acting that transforms our world forever.

Invention (from the Latin *invenire*, meaning *coming in or arriving at*), of the kind pursued by Leonardo, Edison and Einstein stimulates our senses because it expresses the bold, isolated search for truth that over the generations led to the Age of Enlightenment in the 18th century and the birth of all the modern sciences. This singular focus on the workings of the solitary man's mind has fed the conventional wisdom that the greatest advances in thought and method are taken only by an individual and only in isolation.

A true reading of history shows us that high and long leaps in thinking and acting occur most often when people of disparate backgrounds and knowledge combine their experiences and perspectives. That is why the word innovate is so helpful to our understanding of progress. To innovate (from the Latin *innovare*, meaning *renew or alter*) implies a deliberate change in the nature or fashion of something that exists already, precisely to make it of greater use to more people. By definition, innovation is a process by which people improve on existing knowledge or practice, and make it possible for that improved idea or thing to be used widely.

I have tagged that process the diplomacy of knowledge. Knowledge diplomats work across disciplinary boundaries, geographic barriers and political borders to uncover, share and refine knowledge. Thomas Jefferson's brilliant metaphor of a burning candle is still, I think, the best way to illuminate the concept of the diplomacy of knowledge and its incredible power. The candle aflame symbolizes not only enlightenment but also the transmission of learning from one person or group of people to another. When I light my candle from the flame of yours, your light is not diminished. Just the opposite:

“Trust is both an ingredient in and a by-product of inclusion. Workplaces, industries and economies rely on trust to make it possible for a diversity of people to collaborate openly, honestly and successfully.”

the light from both shines brighter on all that surrounds us.

In physics, this light is called candlepower. By working across the borders that would keep us apart, we create the illumination necessary for innovation. The organizations, cities and regions where innovation occurs most often—think Bell Labs in suburban New Jersey, the city of Waterloo in south-western Ontario and Silicon Valley in northern California—are those where this light shines the brightest.

These centres of excellence remind us that diversity times collaboration equals inclusion.

The brilliance of these places is the result of diversity—of people equipped with a range of skills, knowledge and experiences coming together. In the case of Bell Labs, this diversity was largely disciplinary—physics, chemistry, engineering, mathematics, electronics, meteorology and metallurgy. In the Kitchener-Waterloo region and Silicon Valley, this diversity ranges beyond the sciences to include academics, entrepreneurs and investors. In each case, the critical mass of disciplines created not just an organization of innovation but a cultural dateline—a modern-day, innovation-driven equivalent of Renaissance Florence.

Yet diversity alone does not automatically lead to innovation. To put a finer point on it, diversity is not the same as inclusion. Inclusion comes when people from diverse perspectives collaborate to make meaningful decisions and take consequential actions. The plain truth is diversity alone is not enough to spur inno-

vation. It is not enough for an organization, for instance, to be diverse and yet for that organization to exclude these diverse voices from contributing to the decisions and actions that count for most. Groups of diverse people must collaborate genuinely for inclusion and then for innovation to emerge. I would state the point even bolder: innovation is impossible, or at the very least unlikely, without inclusion.

Stated succinctly—inclusion times trust equals innovation.

Trust is the element that combines with inclusion to create innovation. In fact, trust is both an ingredient in and a by-product of inclusion. Workplaces, industries and economies rely on trust to make it possible for a diversity of people to collaborate openly, honestly and successfully. These same workplaces, industries and economies strengthen trust when they show they can go from having a diversity of faces to having the people behind these faces play important roles in decisions and actions.

Put in the context of real life, we build trust when we enable people *to get up and dance* (an invitation to action) and not when we summon them *to the dance* (an invitation to an occasion). My comparison to dance is literal as well as metaphorical. When I served as governor general, we at Rideau Hall made square dancing a central activity of the annual winter party for the diplomatic community in Ottawa. Square dancing may seem a little square to some, yet its gymnastics requires all those taking part to influence and own the experience as a group. In this case, this group

of diplomats—representing a wide range of cultures—were not passive observers of a Canadian cultural custom. They took active—indeed, exuberant—roles in creating the entire experience. They were contributing to it, influencing it, owing it.

Square dancing is a good way to think of going from merely including a diverse group of people within an organization and economy, to having those in the group collaborate fully in the decisions and actions of the organization and economy. Another way of understanding the move from diversity to inclusion is to look at it as a progression from optics (a surface diversity of backgrounds and experiences), to outcomes (drawing on the knowledge and talent that stems from these diverse backgrounds and experiences), to ownership (using that greater performance to unleash individual creativity, deepen collaboration and spark innovation). Again, an essential ingredient in, and by-product of, inclusion is trust. Any decline or stagnation in trust has grave implications for innovation. When trust is shaken, individuals pull back, collaboration wanes, inclusion suffers and innovation contracts.

“An essential ingredient in, and by-product of, inclusion is trust. Any decline or stagnation in trust has grave implications for innovation. When trust is shaken, individuals pull back, collaboration wanes, inclusion suffers and innovation contracts.”

The importance of trust in galvanizing inclusion into innovation inspired me to explore the idea of trust more deeply. So much so that I wrote a book about

it—titled, appropriately enough, *Trust*. What I learned from that study is that Canadians can take steps to make our businesses, our institutions and ourselves more worthy of trust. These steps are really habits, attitudes and approaches, and my understanding of many of them stems from my experiences serving as the representative of the head of state in Canada for seven years. Some ways are individual—listen first, never manipulate, be consistent in public and private. Some are geared toward leaders at all levels and of all stripes—be barn-raisers, tell everyone your plans, depend on those around you. And some are societal—apologize, cherish teachers, invite others to dance.

“Identifying the factors that lead to innovation—diversity, collaboration, inclusion and trust—and then acting with intent to apply and strengthen them is vital to spurring innovation in Canada.”

This leads to a final mathematical formula: Innovation times intention equals a culture of innovation.

Identifying the habits, attitudes and approaches that build trust, and then acting in ways that exhibit them, is an example and expression of intent. The same principle applies to innovation. Identifying the factors that lead to innovation—diversity, collaboration, inclusion and trust—and then acting with intent to apply and strengthen them is vital to spurring innovation in Canada. Acting intentionally enables us to go from irregular instances of innovation to creating a permanent culture of innovation in Canada.

This emphasis on intention inspired the Rideau Hall Foundation to organize last year's inaugural Canadian Innovation Week and to launch the Tech for Good Declaration. With this declaration, a person or organization pledges to live up to six principles when developing or adopting new technologies: build trust and respect people's data; be transparent and give choice; reskill the future of work; leave no one behind; think inclusively at every stage; and participate in collaborative governance. When people and groups act consistently in these ways, they create a deep and sustainable culture of innovation not only in their organizations and institutions, but also in the country.

Rideau Hall Foundation's current, intentional work to build this culture of innovation is to develop a Culture of Innovation Index. The index will give Canadians a baseline reference that reflects their willingness to be innovators, their awareness of and attitude toward Canadian innovations, and their understanding of financial and institutional supports for innovation. Equipped with this measure, Canadian organizations, institutions and policymakers can make intentional decisions and actions to innovate and, in doing so, expand and strengthen our country's culture of innovation. We at the Rideau Hall Foundation just released the results of this work. Find them at www.canadianinnovationspace.ca/innovation-index.

Meanwhile, I urge businesspeople, policymakers and institutional leaders to follow these three equations. Apply them and do your part to move our country from being diverse to being inclusive, building trust and creating a sustainable culture of innovation. **P**

David Johnston, C.C. served as the 28th Governor General of Canada and is Chair of the Rideau Hall Foundation.



Not so ironically, we need to be more innovative in developing the very policies that encourage business innovation, writes federal Innovation Minister Navdeep Bains. Photo courtesy Innovation, Science and Economic Development Canada

The Innovation Imperative

Innovation, fittingly enough, isn't what it used to be. Before the Fourth Industrial Revolution transformed not just the nature of change but the pace of it, innovation was largely the domain of research and development divisions and design departments. Now, innovation can happen anywhere—it is perpetual, disruptive and demands that governments engage in equally creative and adaptive ways.

Navdeep Bains

As technological progress continues to shake entire industries, the nature of economies and societies is changing. In this era of disruption, innovation matters. Not only does it improve our quality of life, it is increasingly *the* key factor that drives productivity, competitiveness and growth.

The accelerated pace of change means nations need to invest in innovation, talent, and ideas for more inclusive

and sustainable growth. The opportunities presented by a disrupted and competitive world are numerous and potentially game changing for Canada. Just think of the possibilities that stem from artificial intelligence (AI) and clean technologies.

However, the challenge for advanced, leading economies such as ours is how we embrace this change. In addition to having all the right ingredients, we need to foster an innovation mindset to give Canadians the confidence to transcend boundaries and achieve long-term economic and social advantages.

The bottom line is that the traditional policy prescriptions of the past need to be rethought. In this era, we cannot continue to rely on indirect measures or low tax rates. Not so ironically, we need to be more innovative in developing the very policies that encourage business innovation. Microeconomic policy has to be complemented by macroeconomic policy, with more demand-driven, business-led programs.

Enter our government's Innovation and Skills Plan. Using a whole-of-government approach, the Plan supports firms at all points along the innovation continuum and Canadians at every stage of their lives. It emphasizes partnerships, brings together industry and academia, and embraces inclusion.

I know innovation can sometimes seem like an abstract idea, but its effects are very real and the benefits can be seen all around us—whether it is healthier Canadians thanks to advanced surgical technologies or better crop yields thanks to satellites that predict soil conditions with uncommon accuracy.

There are incredible opportunities around the corner. Canada can plant a flag in any number of new industries. We have emerged as leaders in fields such as artificial intelligence, telecommunications, animation and CGI because of the foresight governments displayed in supporting these industries when they were at

“With such monumental change comes some displacement, too. Those changes require responsive government to guide us through great shifts; to help Canadians identify, prepare for, and succeed at, these jobs of the future.”

their inception. For instance, Canada's investments in AI in the 1980s successfully attracted world-class researchers and provided the foundation for Canada's leadership in the sector today.

Innovation is not limited to high-tech industries, but impacts every sector of the economy. I see it in our energy industry, where low oil prices and a worldwide push to curb fossil fuel use have had an undeniable impact. Economic experts have identified our oil and gas sector as an advanced industry, thanks to its high investments in research and development and a STEM-savvy workforce.

Advanced industries such as these are key to our future. They anchor high-value economies, and present opportunities for global leadership. Furthermore, average wages in these industries are nearly 50 percent higher than the national average.

Industries such as oil and gas or transportation are not dying. They are evolving, growing, and unlocking the potential of innovative technologies to be more competitive and environmentally friendly. For example, we just invested in a partnership between Siemens Canada, New Brunswick Power and Nova Scotia Power that will help improve power delivery to underserved communities in the Maritimes, better integrate renewable energy into the power grid and reduce future electricity costs for consumers.

With such monumental change comes some displacement, too. Those changes require responsive govern-

ment to guide us through great shifts; to help Canadians identify, prepare for, and succeed at, these jobs of the future. Because really, it is people that win the day. Canada's biggest competitive advantage is its people. It is not government. It is us, together.

The Innovation and Skills Plan is a real and definitive answer to that question. It will help us navigate the changes already unfolding, and allow us to create a resilient workforce and economy. The Plan, which has received significant support over federal Budgets, including new support in Budget 2019, is about: 1) generating more and better ideas—solutions; to people's problems; 2) growing and building on those ideas to turn them into successes and jobs; and 3) ensuring Canadians have the tools to benefit directly from these opportunities and this prosperity.

“We are now building ecosystems that will bridge the gaps from science to commercialization to investment and scale-up—helping Canada to grow and compete on the world stage.”

Early in our mandate, we invested massively in science—where the brilliant ideas of today become the “givens” of tomorrow. It has been the largest-ever budget investment in our country's history. This support for sci-

entific research is leading to new products and improvements on existing ones, and it is generating new companies, jobs, and economic growth.

More recently, Canada recognized the exponential value of bringing great minds together with the Innovation Superclusters Initiative. We are now building ecosystems that will bridge the gaps from science to commercialization to investment and scale-up—helping Canada to grow and compete on the world stage.

We've focused on access to talent, including through the Global Talent Stream of our Global Skills Strategy, which makes it easier for companies to recruit in-demand workers from around the world. Given its success, we now propose to make the Stream a permanent program.

“ We have enhanced access to capital by introducing the \$400-million Venture Capital Catalyst Initiative (VCCI), which makes crucial late-stage capital more accessible. With funds leveraged from the private sector, VCCI is expected to inject \$1.5 billion into the Canadian market. ”

We've also improved access to markets. This includes the recently negotiated trilateral trade deal with the United States and Mexico. We are also the only country in the G7 with free trade deals with all the others, and preferential access to almost two-thirds of the global economy. Now more than ever, Canada needs innovation to guarantee its prosperity in a trade-dependent global economy.

We have enhanced access to capital by introducing the \$400-million Venture Capital Catalyst Initiative

(VCCI), which makes crucial late-stage capital more accessible. With funds leveraged from the private sector, VCCI is expected to inject \$1.5 billion into the Canadian market. And in the fall of last year, we proposed a new stream under VCCI that will make an additional \$50 million available to clean technology firms.

Not only will this initiative support Canadian clean tech firms and other high-growth industries, it will help us tap into the untapped human capital of women business owners and entrepreneurs from under-represented groups. That means a more inclusive, more representative economy.

Our innovative approach to foreign direct investment (FDI) increased FDI by 144 percent in the first half of 2018 to close at \$51.3 billion over the year, the highest total in three years. This is important, as FDI makes a significant contribution to Canadian prosperity by infusing communities with fresh capital investment, introducing new technologies, and providing Canadian companies with access to global value chains.

The Canadian Trade Commissioner Service has become an exceptional tool for Canadian companies looking to navigate international markets. The Service facilitated 138 new foreign investments and expansions worth \$3.6 billion in 2017-2018, creating 7,640 new jobs.

Finally, when we have an environment that generates good ideas and develops them into global successes for world-class employers, we need to ensure everyone has a chance to participate in, and benefit from, this economic prosperity.

That is why we are doubling down on training and re-training, including with the establishment of a new Canada Training Benefit. It will pay for training, provide income support during training, and offer job protection so that workers can take the time they need to keep their skills relevant and in-demand.

For the next generation of workers,

we are teaching for the jobs of tomorrow. CanCode is providing our youth with digital skills such as coding, data analytics and digital content development.

In a country as vast and sparsely populated as Canada, we are connecting more people to high-speed Internet. In fact, Budget 2019 announced a plan to deliver \$5-6 billion to this cause. And by the same token, we are connecting them to their next job, to the services they need, and to the opportunities that will change their lives.

Budget 2019 also makes key investments in Canadian strengths like genomics, particle physics, and stem cell research. We're doubling the amount of paid parental leave we provide student researchers, part of our commitment to bring equity, diversity and inclusion to the Canadian science and research community.

The technological transformation that has redefined our lives in the past two decades will only accelerate. Other countries are moving just as quickly as we are, and they are positioning themselves for the same markets. To compete and win, we need to innovate more than ever before.

We must keep at the front of our collective minds that innovation matters to the long-term prosperity of Canadians and to their quality of life. We must look at disruptive innovation as a common effort.

As seen with successive budgets, our government has put forward a pathway to success that will develop top Canadian talent, attract the most creative minds from around the world, and spur new and innovative ideas that can be brought to market quickly.

This is the culture of innovation we are encouraging, and Canadians are already delivering the drive, creativity and ingenuity we need to be the innovation nation. **P**

Navdeep Bains is Canada's Minister of Innovation, Science and Economic Development.



The Rideau Hall Foundation's Canada's Culture of Innovation Index, conducted in partnership with Edelman, is an original survey of how Canadians approach and value innovation in all spheres of our society. *iStock photo*

Canada's First Innovation Barometer

Successful organizations work hard at creating an internal culture of innovation; to drive sales, stay ahead of the competition, provide better service. Societies, too, need to create cultures of innovation to promote prosperity, foster inclusion, and ensure the ongoing value of institutions. To that end, the Rideau Hall Foundation has partnered with Edelman Canada to launch Canada's Culture of Innovation Index.

Barbara Gibbon

Canadian innovators have made enormous contributions to our country and to the world. Canada's innovation performance—of our business sector, our health care sector, our higher education institutions, among many others—has been studied and dissected for many years. We have indices of innovation and we can benchmark our innovation performance against any Organisation for Economic Co-operation and Development country.

But we have not had a way to systematically measure our *national culture of innovation*. That is, a way to answer the question, “How pervasive is innovation as a core value and important activity in our everyday lives?”

At the Rideau Hall Foundation (RHF), we believe that our common culture regarding innovation is fundamental to supporting our future prosperity and success as a country. Our culture, as expressed in our beliefs, our values, our actions, and our institutions. With this in mind, we set out to measure Canada’s national culture of innovation, to start a discussion on how we, as a nation, can build on our cultural strengths towards innovation, and have an open dialogue about addressing our weaknesses.

The RHF is not alone in this concern. Our work found that Canadians believe that a strong culture of innovation is crucially important; that Canada has unique cultural attributes that can strengthen innovation across our society; but that we have some remarkable cognitive dissonances to deal with in order to get to there.

Canada’s Culture of Innovation Index project is an original survey of how we, as Canadians, approach and value innovation in all spheres of our society. The Index, derived from the survey results, provides guideposts as to how we can all be participants in an innovation-supporting culture. The first thing we found out by combing the literature on national culture and innovation was that there is not a lot of literature specific to this topic. The existing academic work is fascinating, but in its very early stages.

The second thing we found out through consultation is that there is a lot of interest in this question, and a lot of discussion all around the edges of ‘national culture of innovation’—we were not starting from zero. So, with the help of Edelman Canada, specifically the team connected to the Trust Barometer, RHF surveyed a representative group of Canadians in ten provinces, enquiring about their

“Canadians believe that a strong culture of innovation is crucially important; that Canada has unique cultural attributes that can strengthen innovation across our society; but that we have some remarkable cognitive dissonances to deal with in order to get to there.”

values and beliefs surrounding six top variables of culture and innovation drawn from the existing literature: diversity, collaboration, risk tolerance, creativity, curiosity, and openness to technology.

We also checked these values and beliefs against actions, because culture is not only what you think, it is what you do. Then, we created an index for keeping track of how Canada is doing in each of these dimensions.

This is our inaugural year. We hope that this work creates a framework that allows us to understand how Canada is doing over time from a culture of innovation perspective, and gives us a way to discuss what we must do in the future.

The baseline index score for Canada is 71. That will be our somewhat arbitrary benchmark for ourselves, and this is what we will look at to determine how we perform over time. As we work with others to refine this research, we hope that people concerned about innovation in other countries will join us, and we can benchmark Canada against other societies.

The results of the first *Culture of Innovation Index* reveal that respondents believe that Canada is blessed with some important strengths—particularly in diversity and collaboration—and some surprising weaknesses, in openness to technology and curiosity. Canadians value innovation and a culture that embraces innovation. They see innovation as an engine for the common good, with the top-ranked answers for how innovation creates ‘good’ in our society tracking close-

ly with what Canadians typically value: healthier people (43 percent), a growing economy (42 percent), and a cleaner environment (37 percent). Moreover, in an open-ended question about what could be done to make Canada more innovative, promoting a culture of innovation was third most-popular suggestion, ahead of reducing bureaucracy—with only funding and investing in innovation being more commonly cited. So, Canadians themselves think that our culture with regard to innovation matters.

“Canadians are proud of what they perceive as our society’s strengths in innovation: 34 percent volunteered ‘diversity’ as the aspect of Canada’s identity that makes it uniquely innovative.”

Canadians are proud of what they perceive as our society’s strengths in innovation: 34 percent volunteered “diversity” as the aspect of Canada’s identity that makes it uniquely innovative. Not only is this a very Canadian answer, it also tracks well with the business literature on the great value of diversity in improving decision making and other outcomes for a firm. Respondents also placed a high value on areas that are relevant to a thriving culture of innovation—being engaged with others is important, and all Canadians

should be able to reap the benefits of innovation.

There are, however, important demographic differences of opinion about who should really work to foster innovation. Nearly half of the Gen Z respondents—18 to 25 year olds—look to individuals to foster innovation in society, much more than previous generations. Women place more responsibility for innovation on government. Men are more likely to expect start-ups and entrepreneurs to lead the way. The survey also found that women were much less likely than men to be engaged with innovation. While 72 percent of women said it is important for people in local communities to try to solve problems, only 42 percent said they try to find new or unique ways of completing tasks, versus 52 percent of men. This result is both intriguing and alarming—we need to understand why this is, work to identify what factors might be driving this gap, and identify levers to close it.

Breaking down business sectors, technology was considered the most innovative. What is surprising, though, is that only 55 percent of respondents saw it that way. Even the commonly assumed stars of the Canadian innovation landscape, telecommunications and energy, were not widely considered as innovation leaders.

This data varied according to region. Technology was positively perceived in BC (59 percent) and Quebec (63 percent), while in Alberta energy (46 percent), and health care (30 percent) were more positively seen than in other provinces. Agriculture rated highest in Saskatchewan and Manitoba (41 percent) for being innovative. So, proximity probably affects awareness—but none of these results is particularly spectacular.

On the other dimensions of innovation culture, it seems we live with some pretty basic cognitive dissonance:

- While 70 percent of Canadians surveyed believe it is important to take risks, only 39 percent believe

Canadians are open to actually doing so.

- We believe that learning about Canadian innovations is fairly important, with 58 percent of Canadians saying it inspires them to try new ways to solve problems—but respondents could not recall having seen stories about innovators, suggesting that we are not as curious as we could be.
- And while 71 percent of us admitted to liking new technology, only 48 percent of us are willing to pay more to have it.

This raises some interesting questions. Could there be a connection between the cultural resistance to investing in new technology, reported here at the personal level, and some of the country's broader economic concerns regarding innovation, such as the relatively low rates of business investment in R&D? Does our dislike of the price of new technology actually change how much of it we consume and how comfortable we are with it? Does it shadow our opinions of innovators? Does it contribute to our lack of curiosity about innovation? These are interesting questions raised by the Index that we hope will encourage further discussion.

What moves the needle? Further statistical analysis found that the following five items accounted for more than 50 percent of the total variability in the overall Index score per respondent:

1. It is important for people in their own communities to engage in local problem-solving efforts.
2. I often try to find new or unique ways of completing tasks.
3. I often question how to improve something.
4. It is important for new or different products or processes that make an impact to be within reach of every Canadian.
5. In the last month, I have seen news about Canadian innovators or innovations.

The top three alone account for nearly 40 percent of the overall variance explained. These may give us an idea of where to focus our collective efforts to move the needle on the culture of innovation, particularly on curiosity and creativity.

At the Rideau Hall Foundation, we believe this Index can be an important new tool for public and private sector leaders in this country, as we work to instill a culture of innovation in Canada. Admittedly, it may raise more questions than answers in this first year, but it provides a new set of data on an aspect of innovation that has not yet been well studied.

At the same time, we believe the survey points to the importance of continuing the work we are doing to instill a culture of innovation in Canada through our efforts to connect, cultivate and celebrate innovators. Initiatives such as the Governor General's Innovation Awards and Canadian Innovation Week celebrate our successes in Canadian innovation. Our new Pitch@Palace Canada program connects top Canadian innovators to a global network to support their entrepreneurial growth over the long term. These, combined with our free, bilingual teacher resources, Education for Innovation, and our innovation partnership platform, CanadianInnovationSpace.ca are powerful tools to help encourage Canadians to see themselves as key players, and to join us in working for a strong culture of innovation in Canada. **P**

Barbara Gibbon is Director, Innovation at the Rideau Hall Foundation (currently on an interchange from her position as Director General at Innovation, Science and Economic Development Canada).



Volunteer Yves St-Onge and Red Crosser Carl Boisvert in Gatineau, Quebec, where a tornado touched down, destroying homes and buildings, and leaving thousands without power. *Canadian Red Cross photo*

Step One, Mindset Shift: Innovation in the Social Good Sector

Our country's charitable organizations risk becoming obsolete. Recent research from both the Rideau Hall Foundation and CanadaHelps has found troubling trends in giving behaviour that charities, donors, and policy makers must act on before it is too late. Fortunately, the same research holds the key to solutions for those charities willing to make the next great leap—which will need to begin with a mindset shift.

**Teresa Marques
and Marina Glogovac**

The 2018 *Giving Report* by CanadaHelps found that between 2006 and 2016, Canada's population grew at a rate three times faster than the size of donations over the same period. This also reflects fewer donors, with just one in five Canadian tax-filers making donations in 2016, down from one in four in 2006.

In partnership with Imagine Canada, the Rideau Hall Foundation sponsored *Thirty Years of Giving in Canada*, a landmark study that mapped donations and giving patterns in Canada

from 1985 to 2014. It produced three important findings:

First, Canada's charities and non-profits are too dependent on aging donors: People aged 50 and over now account for three quarters of all donations, while those 70 and older make up 30 percent. Second, the long-term viability of the charitable sector in our country will require an increase in donation rates among younger Canadians. Finally, in the absence of better youth engagement, the effectiveness of the charitable sector will be severely restricted. There are several forces at work in changing giving behaviour, including disruptive technology, demographic changes, and cultural shifts. Increasingly, donors are influenced by their peers and are less incentivized by a tax receipt.

The most recent *Global Trends in Giving* report from the Public Interest Registry reveals that 41 percent of donors worldwide have given to crowdfunding campaigns that benefit individuals, nearly half (44 percent) for expenses related to medical treatments and family emergencies. At the same time, social media is

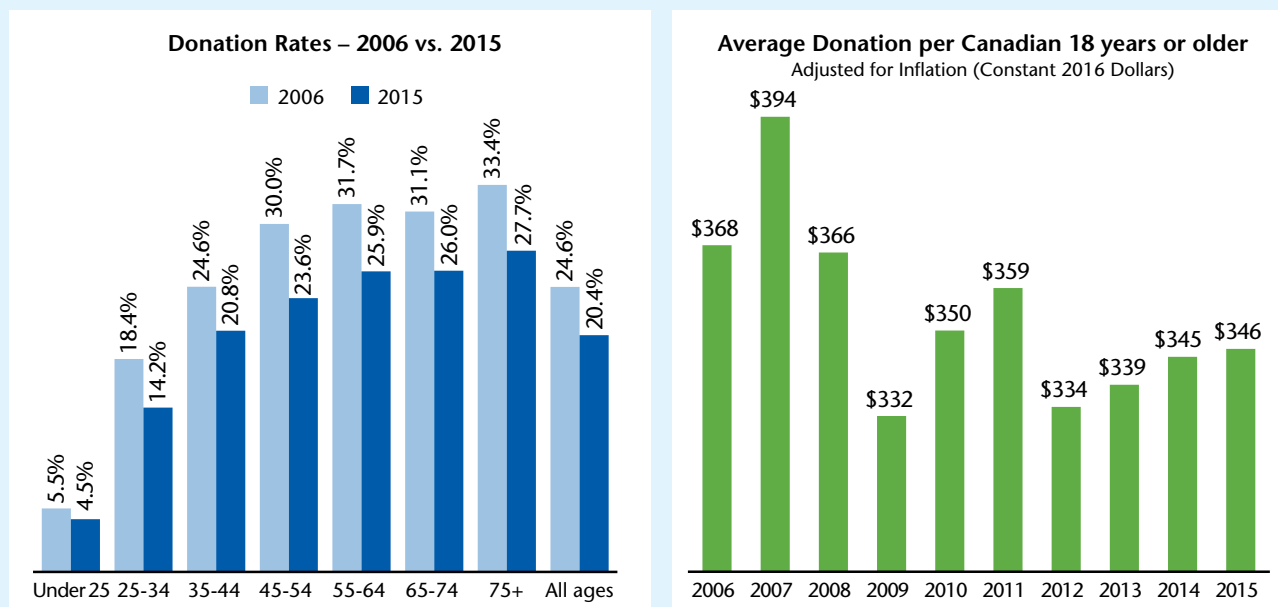
“There are several forces at work in changing giving behaviour, including disruptive technology, demographic changes, and cultural shifts. Increasingly, donors are influenced by their peers and are less incentivized by a tax receipt.”

now the leading communications tool that inspires giving. For example, 18 percent of donors have given through Facebook fundraising tools and 88 percent say they will likely to do so again. Of most concern to charities, it appears that a significant percentage of donors through crowdfunding believe that they donate less money to traditional charities as a result. All these numbers lead to an inescapable conclusion: Many young donors no longer see any lines separating charitable giving and other forms of giving. To them, giving is simply that—giving. And as the months and years pass, the informal, flexible and increasingly innovative ways of giving—the ways that appeal to them most—has the potential to squeeze out traditional charitable giving and put charitable

programs at risk if they fail to adapt. Faced with this reality, we need innovation in our country's charitable sector like never before.

Why should we care about the survival and success of the charitable sector? Healthy charities in Canada are important for all Canadians, and we're unlikely to truly understand the social and economic gaps left by failed charities until it is too late. These organizations reflect the increasing diversity of our country; they engender greater inclusion in all aspects of Canadian life; they fill gaps in the health and welfare of people and communities that our governments are slow or unwilling to close; and they can spur transformational innovation by injecting seed capital into novel research

Canada's charitable sector is facing a funding crisis



Source: CanadaHelps Giving Report 2018

in a manner that traditional funding mechanisms do not often allow for. The critical role charities play has always required innovative approaches to problem solving. In their recent book *Ingenious*, David Johnston, Rideau Hall Foundation chair and Canada's 28th Governor General, and Tom Jenkins, former CEO of OpenText, focus on this country's most influential innovations.

Breakfast for Learning is one example. Set up in Toronto in 1992, the non-profit program was the world's first to help schools make sure kids get the nutritious breakfasts and lunches they need to fuel their minds for learning. It grew quickly to include some 1,600 schools across Canada, serving 600 million meals to almost four million young students. As Johnston and Jenkins make clear, Breakfast for Learning is a resounding demonstration of the role schools play not only to instruct, but also to equip students with the basic physical capacity to learn. Understanding that the path to learning runs through the stomach, and then acting on that knowledge, is innovation.

“Real transformation will require looking beyond just fundraising and instead developing a wholesale digital transformation strategy. This will require a mindset shift both within charitable organizations and by those who support them in the public and private sectors.”

So how should charitable organizations change? There's no question that the charitable sector must innovate to succeed. The need for innovation is not in the way charities attack societal issues, however, but rather in the way they

adapt to survive and thrive amid the exponential rate of digital and cultural change we're currently experiencing. While they should keep looking to innovate in ways such as Breakfast for Learning did, that kind of innovation alone is not enough. Organizations should themselves embrace innovation in how they work and how they are sustained: they should become more adept at explaining the societal value of their services or cause to young Canadians; they need to find ways to be more transparent, earn higher levels of trust, and build long-term donor loyalty. They also must truly embrace digital transformation. Technology is propelling innovation, disruption, and a rapid pace of change, but digital transformation is much more. It's not about simply adopting technology into organizational processes—such as creating a website, having an online donation form, or investing in new fundraising methods. Real transformation will require looking beyond just fundraising and instead developing a wholesale digital transformation strategy. This will require a mindset shift both within charitable organizations and by those who support them in the public and private sectors. Digital transformation is a holistic approach to integrating digital strategy and digital technologies into an overall organization. It is strategic and intentional change, enabled by technology but successful only through strong leadership, a learning orientation, cultural alignment, and innovation. Digital transformation is all-encompassing. Charities must think about their human resources and organizational strategies: what are their processes for a digital world, and how can they hire people with the right digital skills and mindset? They must think about their technology infrastructure and connectedness. They must have a content strategy to think about what their story is and how they are telling it, a social business strategy, and a channel strategy to ensure they are where their donors are.

Charities must develop data strate-

gies, determine what they must collect and store, reconsider what questions they're asking, and identify their key performance indicators. The process will involve leveraging technologies and their impact on potential donors in a strategic (not reactive) way. For this change to be successful, it must also be sustainable. Transformation that's sustainable stems from the genuine make-up of an organization. The change in any charity must be faithful to its mission and vision; it must reflect an accurate understanding of the competitive landscape; it must take into consideration the needs of partners; and it must be based on a thorough review of organizational assets, gaps and competencies. Above all, change must deliver increasing value to contributors and beneficiaries, and to Canadians who neither give nor receive directly.

Transformation comes from leadership, and it is both ambiguous and messy. The statistics show that most digital transformations within all sectors fail, and success will be even more challenging in the traditionally risk-averse charitable sector. Success will require funder and board support, and agreement that charities need to invest in themselves. It requires courage and determination, embracing an innovation mindset, and cultivating a willingness to fail.

Healthy charities are important for everyone because they fill gaps, build on success, and include the excluded. But the status quo is a death knell for Canada's charities. Our country's charitable sector is at risk and only wholesale rethinking and reform will do. Canadian charities and non-profits have long shown that they can be innovators when it comes to tackling problems with limited resources. That spirit of ingenuity is needed now more than ever. **P**

Teresa Marques is President and CEO of the Rideau Hall Foundation.

Marina Glogovac is President and CEO of CanadaHelps.



Big Tech: Monopoly's Second Moment?

The industrial behemoths of the 21st century are increasingly viewed as the “new monopolies”. After 20 years of pervasive connectivity, the novelty and convenience of the ubiquitous FAANGs have given way to concern about the consolidation of social, economic and political power in such few hands. What the regulatory remedy will be is not yet clear, but it may not resemble your great-grandfather’s trust busting.

**Kevin Lynch
and Laurence B. Mussio**

As Mark Twain famously observed, “History doesn’t repeat itself, but it often rhymes.” It also often contains lessons for the future. This may be one of those times, and the mass digitization of economies and societies may be one of those issues.

Consider that the *New York Times* and *The Economist* are now carrying articles lamenting the risks of monopoly power in the digital age,

just as they did in a previous century marked by disruptive technological change. At the political level: In the United States, Senator Elizabeth Warren advocates the breaking up of info-tech monopolies; in the European Union, Competition Commissioner Margrethe Vestager is wielding regulatory policy and fines to modify infotech market behaviour; and in Britain, the Furman Report on “unlocking digital competition” proposes drastic reforms to competition rules for the digital sector. In these changing times, history may indeed offer present-day insights as public concerns regarding infotech behemoths gather steam—think of it as analogue signals for the digital age.

At the beginning of the 1900s, technological and economic advances spawned massive new “econo-technical” systems that transformed economic production, work and life and, in so doing, raised productivity, real wages and standards of living. They also facilitated the emergence of mammoth corporations that increasingly dominated economic life and exerted great influence over civic affairs.

Soon, a growing public backlash emerged, particularly in America. Local, regional and national monopolies had developed in many sectors: street railways, electric power, oil, and telephony to mention a few. Concerns about their striking corporate power combined with consternation over corporate practices—ranging from price gouging to restricting new competitors to unacceptable working conditions—rapidly grabbed and held the public’s interest. A coalition of consumers, workers, nascent competitors and public commentators succeeded in creating the political and policy context for a wave of American corporate regulations including anti-trust.

These “last century monopolists” in the U.S. were reined in by legislation (Sherman Antitrust Act of 1890), the trust-busting policies of President Theodore Roosevelt (1901-09) and precedent-setting legal judgements

“Today’s major echo of the era of the early 1900’s is striking: a public mood that has swung from infatuation with the new technologies and the convenience and opportunity they convey to angst about some of their unwelcome side effects.”

such as the break-up of Standard Oil in 1911 and the progressive policy context of the New Deal involving new regulatory instruments and new regulatory bodies. Specifics and timing varied, but other western countries such as Canada and the U.K. followed similar policy routes.

Fast forward a century, and we are deeply immersed in the Fourth Industrial Revolution, a time again of extraordinary technological change. Its capacity for creative disruption seems endless. And nowhere is that more evident than in the new digital world it has created. This digital world has dramatically changed how we communicate, work, socialize, study and relax. Consumers have gained enormously from new information-based services, often seemingly at little cost. Firms in many sectors are being transformed by digital technologies, tech start-ups are everywhere and the gig economy offers unique work flexibility. Financial markets have valued the info tech titans—Facebook, Amazon, Apple, Netflix and Google—among the world’s most valuable firms by market capitalization. Digital trade including e-commerce will soon be the fastest growing segment of international trade.

So, is this time really different? Not necessarily. These same tech titans, now sporting the Gothic acronym FAANGs, are being targeted as the “new monopolists” given the scale, reach and dominance of their technology platforms.

In the wake of the Facebook data-poaching revelations and the resulting widespread consumer outrage, U.S. politicians are exploring reg-

ulatory avenues to curb data abuse and establish consumers’ data rights, while the E.U. has already implemented the path-breaking General Data Protection Regulation (GDPR). Foreign interference in the U.S. election campaign and the Brexit referendum that leveraged social media has fueled fears about risks to democratic institutions in a digital world. Some commentators argue that digitally driven growth may exacerbate income wedges and job prospects between skilled workers and unskilled ones, increasing inequality. And, authors such as Harvard’s Shoshana Zuboff warn of “surveillance capitalism” in a digital era of big data, enormous computing power and AI.

So, if history is rhyming, what are the insights from hindsight for tackling the unappealing features of the new, tech-intensive digital world? Today’s major echo of the era of the early 1900’s is striking: a public mood that has swung from infatuation with the new technologies and the convenience and opportunity they convey to angst about some of their unwelcome side effects. And, present day angst ranges from fears about the privacy, security and usage of one’s data, to robots taking your job, to whether your children will have the skills for the jobs of the future, to what fake news and distrust may do to trust in the public commons.

Using a long-run lens requires correcting for optical illusions, and several exist today. First, the fuel of this digital economy is data—a factor of production as crucial as labour and capital but opaque in how it is sourced, priced, and utilized. Second, the cap-

ital assets of the new info techs are largely intangible capital (IP, creative ideas, code) rather than the bricks and mortar of yore. Third, highly educated and skilled talent is the essential labour driver of the info tech titans, not a workforce with a range of skill and educational levels. Fourth, the route to digital market dominance is building technological platforms of incredible scale, with numerous tech start-up acquisitions to maintain technical dominance, whereas in the past firms used multiple acquisitions of similar firms in the building of monopoly positions.

“How do we balance a stated public interest in innovation-driven growth and innovative firms that create new goods and services with a public concern with negative externalities of technological disruption?”

Finally, digital platforms are inherently virtual and global, not geographic in the manner in which traditional industrial sectors have been built and organized. A present-day policy lens must adjust for these changed economic circumstances.

Our past experience with disruptive technological change provides present guidance, although much of it is of a cautionary nature. Then, as now, policymakers and politicians have to work out where to draw the line between whether a firm is being innovative and efficient or whether it is engaging in anti-competitive behaviour. Then, as now, anti-trust policy emerged as an important tool, but by no means the only one. Then, as now, there was a broader question of balancing the encouragement of economic dynamism with the protection of consumers and the

response to wage and income inequality. Then, as now, getting the calibration and timing of the policy response wrong can fuel populism and division.

The public and political context is clearly volatile in a number of countries. Populism has surged in the U.S. as a critical mass of the population fears that their jobs will be stolen by foreigners, either because of bad trade agreements or illegal immigrants, that they have lost control of their lives in a disruptive world, and that their future prospects have soured—the American dream no longer applies to them. This has created a distilled brew of discontent and distrust.

Getting the response right in this challenging context represents a high-stakes policy challenge. It starts with getting the questions clear. How do we balance a stated public interest in innovation-driven growth and innovative firms that create new goods and services with a public concern with negative externalities of technological disruption? How broadly or narrowly should we define the policy toolkit to address these externalities in a rapidly changing digital economy? How applicable is current competition policy, which focuses largely on narrowly defined consumer surplus, to economic dominance in the digital economy? And, given the global nature of the digital economy, how much sovereignty do national jurisdictions, particularly smaller ones, really have?

Major jurisdictions who are global players in digital commerce appear to be taking quite different paths to the future. The EU applies an individual rights lens to data, China at the other end of the spectrum applies a statist lens, and the United States has a largely corporate rights lens, at least at present. Regulatory blocs appear to be forming, and other jurisdictions such as Canada may be squeezed in the absence of a common international approach. It is worth noting that the vast majority of the world's info tech titans are ei-

ther American (FAANGs) or Chinese (Alibaba, Tencent, Baidu). Japan is trying to internationalize data standards, putting digital trade on the table as a World Trade Organization priority and attempting to rally support at the next G20 meeting, which it will host. Without international coordination, digital trade—the most rapidly growing part of trade in services—will be hampered by non-tariff barriers of conflicting data regulations.

“The EU applies an individual rights lens to data, China at the other end of the spectrum applies a statist lens, and the United States has a largely corporate rights lens, at least at present. Regulatory blocs appear to be forming, and other jurisdictions such as Canada may be squeezed in the absence of a common international approach.”

The emerging splits in anti-trust thinking are equally revealing. The consumer welfare standard for competition—the view championed by the Chicago School that only consumer prices and consumer welfare should be considered in anti-trust cases—is under sustained intellectual and political attack in the U.S. Opponents argue it is inadequate in a world where the business model of Facebook and others offers services nominally without charge to consumers but monetizes their data. The EU, which has already launched and won anti-trust cases against Google and other info tech firms, clearly believes in a broader standard. In the U.S., influential anti-trust experts such as Judge Richard Posner, accept the interpretative challenges of ap-

plying conventional anti-trust measures in the digital economy, citing the growing complexity of new digital products and services, produced in digital economy firms with new business models, and changing at an unparalleled pace.

Given that public concerns range from market dominance and abuse to data privacy and misuse to wage suppression and inequality to job insecurity in a world of impending automation, a more innovative and expansive toolkit than current policies is likely needed, not unlike the innovative policy thinking a century ago in response to technology-driven developments. For countries like Japan, Australia, Britain (post-Brexit), Singapore, India and Canada, which are outside the emerging U.S., EU and China “regulatory blocs”, there should be both cause for concern and impetus for common cause as digitization and data redefine the global economy.

“Canada should be at the leading edge of global policy analysis and thinking on the digital economy, shaped by our aspirations and experience. We should not rely solely on the policy paths of others.”

So, what does all this mean, particularly for Canada? First, Canada should be at the leading edge of global policy analysis and thinking on the digital economy, shaped by our aspirations and experience. We should not rely solely on the policy paths of others. American policy thinking will be influenced by their dual reality: maintaining global pre-eminence in digital economy firms while responding to public concerns about unacceptable side-effects of digitization. Similarly, the

EU policy approach will be shaped importantly by European attitudes.

Designing regulatory policies that target unacceptable market and societal outcomes but do not impede innovation and entrepreneurship isn't easy. Overly prescriptive regulation in a dynamic and fast-changing world may not achieve the desired balance, whereas principle-based regulation and collective codes of conduct, accompanied by effective monitoring mechanisms may be able to provide the public with reasonable assurance of expected behaviours by participating firms. Similarly, programs of job retraining and reskilling in response to automation may do more for job security concerns than searching for regulatory fixes. Indeed, protection against cyberattacks may be better tackled as a collective public good rather than purely a private one. In short, we should be asking these questions, and many more.

Second, Canada should be building digital alliances with countries with similar interests and concerns, and pushing for global data and digital standards. Japan, Australia and Britain would be potential partners in such an alliance.

Third, Canada should consider being a digital “policy sandbox.” It could build on work by the World Economic Forum (WEF), the Organisation for Economic Cooperation and Development (OECD) and others on global data principles, and become an early adopter, helping to shape international conventions.

Fourth, Canada should strive to be a significant player in the digital economy notwithstanding the hegemony that the U.S. and China enjoy with their info tech titans. This means leveraging our advantage in being able to attract world class talent, aiming to own the podium in building world class innovation ecosystems, and rethinking regulation to encourage Canadian tech entrepreneurship, all the while building trust in Canadian digital tech firms.

The government's initiatives on innovation superclusters and global talent visas are good steps that need broadening and reinforcing by the public and private sectors.

Fifth, Canada could be a leader in applying the digital economy and data to government and quasi-government sectors. The health sector can be transformed by digitization, big data and AI, provided there is public trust in how data are respected and handled. Similarly, with government operations, the opportunities to be a world leader certainly exist provided public confidence goes hand-in-hand with technology competence.

In all this, Canada must avoid complacency regarding the threats of anxiety-fueled populism in today's world of change and disruption. We are well into the digital era, with its transformative potential and its new risks. The “new digital monopolists”, with their size, power and economic impact, are the public face of these generational policy challenges, much as was the case a century ago, but both the challenges and opportunities run deeper. Responses will differ across jurisdictions and traditions, but past experiences provide useful signals for contemporary policy makers, and Canada should have a global digital voice. **P**

Contributing writer Kevin Lynch, vice chair of BMO Financial Group, is a former clerk of the Privy Council and a former deputy minister of Finance.

Laurence B. Mussio is a Canadian business historian and author of the forthcoming A Vision Greater Than Themselves: The Making of the Bank of Montreal, 1817-2017.

Celebrating Canadian Innovators

The Governor General's Innovation Awards celebrate unique individuals who have risen to the challenge of finding solutions to the world's increasingly complex problems with collaboration, interdisciplinarity and inclusivity, using technology to bridge divides and empower others. This year's laureates make Canada safer, more connected, smarter, healthier and more strongly positioned to continue to impact the world. The following are winners of the Governor General's 2019 Innovation Awards, to be recognized at a ceremony at Rideau Hall May 29th.

Jacqueline Milczarek

DR. TREVOR BELL

GGIA citation: Sea ice is not only a hunting platform and travel highway, it has for centuries defined Inuit culture and identity. Now, because of climate change, Inuit are increasingly concerned about their travel safety and the impacts that declining ice conditions are having on community wellbeing. Specially designed technologies such as the SmartQAMUTIK and SmartBUOY empower communities to monitor their

own ice trails. For the first time, such technology is being produced for Inuit communities by Inuit youth in Inuit Nunangat (Inuit homeland in Canada) and Inuit Qaujimajatuqangit (Inuit societal values and knowledge) is being combined with technical training for Inuit to operate and manage SmartICE services in their communities.

Dr. Trevor Bell has witnessed what many of us may never experience in a lifetime—watching the devastating effects of climate change unfold first-hand in the Canadian Arctic. “For many people around the world, they see a polar bear and they think that’s who’s being impacted by climate change in the Arctic, in fact they don’t realize there are people living in the Arctic,” says Bell—a noted field scientist, geographer and research professor at Newfoundland’s Memorial University. The magnitude of problem hit home for Bell in the winter of 2009-10 while he was working in Nunatsiavut. “One in twelve people had fallen through the ice,” he recalls. “That’s especially traumatic. That’s like every 12th car on the freeway crashing.” The cause of the disaster was rapidly thinning sea ice conditions that not only caught local Inuit off-guard, but left them afraid to venture out on trails that they and their elders had been using for centuries, impacting how they hunt and travel. The Nunatsiavut government



Dr. Trevor Bell. National Content Solutions photo



Andrew Arreak of SmartICE working in the field in The Arctic. Dr. Trevor Bell photo

asked Bell to find a solution.

And so, the SmartICE project was launched. Bell knew his technology would be far more powerful if he could integrate some of long standing navigational skills of local Inuit and had heard about a local group called Ikaarvik: Barriers to Bridges, and Andrew Arreak. Arreak became a core part of the SmartICE team in Pond Inlet, bringing valuable Inuit community feedback to test and develop new products like the Smart-QAMUTIK—a mobile ice thickness sensor that can be mounted on a sled. Ikaarvik and SmartICE continued to partner on the project in Pond Inlet and in 2016, both were part of the team that won the Arctic Inspiration Prize. The win inspired Bell and his team to turn the tech-driv-

en, community focussed ice monitoring service into a not-for-profit, social enterprise. In 2017, SmartICE was awarded the United Nations Momentum for Change award for the innovative, scalable, replicable and practical solution it provides for climate change adaptation.

DR. JOELLE PINEAU

GGIA citation: *Dr. Pineau is a leader in the innovative application of Artificial Intelligence (AI) and machine learning to personalized and robot-assisted health care. She pioneered the development of algorithms to handle a special set of mathematical problems, known as partially observable Markov decision processes. These problems involve decision-making techniques where multiple choices are available over time to a decision maker, and where the agent lacks full knowledge of its context. The ability to handle these decision processes is at the core of machine learning, and her work stands as a foundation for several AI advances seen today.*

If you haven't heard of Dr. Joelle Pineau yet, you soon will. The McGill University computer science professor is co-director of McGill's Reasoning and Learning Lab and a superstar in Montreal's booming AI (artificial intelligence) community. Pineau specializes in "reinforcement learning": working to

develop the kind of algorithms that will make machines smarter. It's arduous, mind bending, pioneering work. "There are very few of us (women in this field) ...that's just the reality," she admits. "The fact that I'm still here—that I'm still doing what I love is probably a testament to the fact that I was probably one of the lucky ones." Her achievements and collaborations have helped put McGill and Canada on the map as emerging powerhouses in reinforcement learning. Among other things, Pineau set up the very first International Women in Robotics Workshop and insists that her health care-focussed innovation research helps drive "inclusive" patient focused solutions as well. Her team at McGill is currently working to develop an AI driven motorized, "smart wheelchair" that may one day be able to fully adapt itself to a patient's needs. Her many other projects involve developing and testing AI agents to deliver precision, patient-tailored care for conditions like depression, schizophrenia and epilepsy. All the important AI-driven work that Pineau leads across multiple areas is done through key collaborations with researchers and clinicians in the department of Medical Physics at McGill, the Montreal Neurological Institute, the Douglas hospital and the Montreal Heart Institute. Pineau also leads the Facebook's AI research lab in Montreal.



Dr. Joëlle Pineau working on an AI-enhanced robotic wheelchair. Owen Egan, McGill University photo

CHIEF DR. RONALD IGNACE AND DR. MARIANNE IGNACE

GGIA citation: *Chief Dr. Ronald Ignace and Dr. Marianne Ignace have created the model of collaborative approaches to research in and with Indigenous people and communities. It is a new approach to knowledge mobilization and the development of methods that deeply respects and furthers understanding of Indigenous peoples' connection with land and language. Their work successfully combines advocating and practicing the deployment of western scientific knowledge in dialogue with the wisdom and knowledge of past and present elders.*



Dr. Joelle Pineau. National Content Solutions photo



Chief Dr. Ronald Ignace and Dr. Marianne Ignace. *National Content Solutions photo*

Chief Dr. Ronald Ignace (Stsmél'qen) is a long-established community leader of the Secwepemc (Shuswap) Nation, a Chief of the Skeetchestn Band, and adjunct professor at Simon Fraser University (SFU) in British Columbia. His wife, Dr. Marianne Ignace (Gulkihlgad) is a trained linguist, a professor of First Nations Studies and Director of the First Nations Language Centre at Simon Fraser University in British Columbia. The Ignaces co-authored *Secwépemc People, Land, and Laws*. The book, which won the 2018 Basil Stuart-Stubbs Prize, details 10,000 years of the Secwépemc (Shuswap) First Nation's history. It is the culmination of the couple's 30 years of linguistic and anthropological research and is being introduced into university curriculums across North America. Much of the wisdom and knowledge of elders that the Ignaces have managed to capture, translate and give context to involved Marianne conducting extensive interviews (with more than 150 elders) in Secwepemctsin—a critically endangered language—(believed to have less than 100 speakers). What some of those stories have unearthed, says Ron Ignace, is evidence of emerging laws and history that many never knew existed.

"These stories are 4,000-5,000 years old and they are the deeds of ances-

tors," he explains. The Ignaces say they are hoping that finding this lost history will help many overcome the loss of dignity that is the legacy of years of colonial rule and the tragedy of residential schools. They believe language holds the key to healing. "Language embodies our laws, our vision, our identity," says Ron Ignace. Internationally, the United Nations has declared 2019 The Year of Indigenous Language. It's estimated that three quarters of some 90 living indigenous languages across the globe are in danger of disappearing.

Ron and Marianne Ignace remain

deeply committed to ensure that does not happen. Their work has inspired and funded research across more than a dozen Indigenous language groups (within which there are believed to be more than 60 individual Indigenous languages spoken in Canada). Research has shown that for many Indigenous groups, having the ability to learn and speak their ancestral language gives many a lost connection with their culture. Ron Ignace says many of the oral tradition stories they captured in the book are not only timeless, but perhaps more applicable than ever in a time of so many conflicts. "In the last chapter of this book, it's a story about coyote and porcupine, two nations at war. One kneels down before the other and tells their story, the other does the same and they have a ceremonial feast of healing at the end of it."

DR. GARNETTE SUTHERLAND

GGIA citation: *Dr. Garnette Sutherland developed a high field intraoperative magnetic resonance (MR) system that provides surgeons with exquisitely detailed, 3-D MR images during an operation. This innovative technology has been used in over 40,000 neurosurgical patients worldwide. Within this environment, an image-guided robotic system called NeuroArm was created, the world's*



Dr. Garnette Sutherland. *National Content Solutions photo*

first robot capable of performing neurosurgery on a patient inside an MR imaging machine.

For Dr. Garnette Sutherland, professor of neurosurgery at the University of Calgary, it's not brain surgery or rocket science, it's actually a bit of both. Sutherland invented the world's first magnetic resonance imaging (MRI)-compatible robot for brain surgery, called NeuroArm. As the name suggests, it's an innovation inspired by another Canadian first—Canadarm—which performs special tasks aboard the International Space Station. The microsurgery device is controlled by

a surgeon at a computer working in conjunction with MRI data, allowing surgeons to operate while a patient is in the MRI. The first intra-operative or iMRI is a complex innovation that started with a very simple desire for Dr. Sutherland—to improve patient outcomes. “The field of neurosurgery has lots of failures,” says Sutherland, who's education included time spent at the world-renowned Montreal Neurological Institute. “During my time in Montreal, there were a lot of successes. Montreal was very well known for the treatment of epilepsy, but even in the most optimal epilepsy surgery only 70 or 80 percent of the people were cured. That leaves another 30 percent which we might call failures.” The NeuroArm has improved those outcomes by making previously unthinkable surgeries possible and surgeries that were highly ambitious more easily achievable. In 2015, Sutherland was awarded NASA's top technology achievement award, the Exceptional Technology Achievement Medal, his third NASA honour. In 2012, he was named a member of the Order of Canada for his lifetime contribution to health care innovation. “Looking back at how it all came together I think that is unique to Canada that people from across our nation came together to build these technologies” said Sutherland.

The next step is NeuroArmPLUS—a joint venture with Shenzhen, China that will bring the Canadian-based innovation to a much broader global market.

JAD SALIBA

GGIA citation: *Jad Saliba, Founder and Chief Technology Officer, started Magnet Forensics to address the growing challenge police agencies face in the collection, analysis and reporting of digital evidence when investigating crimes such as human trafficking, child sexual exploitation and terrorism. In addition to consolidating hundreds of critical data types from smartphones, computers, IoT devices and cloud services, Magnet Forensics' tools leverage artificial intelligence, advanced search techniques, and data visualization to help investigators uncover crucial digital evidence to convict or exonerate suspects.*

Magnet Forensics founder Jad Saliba was a member of the Waterloo Regional Police service when he was diagnosed with stage 4 Hodgkin's lymphoma. Saliba did all he could to fight the disease and when he returned to work, he was offered a desk job in the digital forensics unit. The force had a growing need to access information across computers and mobile devices and Saliba had a background in computer science. “Facebook was just becoming really popular at the time, a lot of instant messaging, and we didn't have easy ways of recovering that data. I remember coming home one day really frustrated that we couldn't help an investigator out. Saliba spent his weekends and evenings troubleshooting, testing possible software solutions. When he got his breakthrough, he offered his initial design tool for free, partnering with law enforcement teams who would give him valuable design feedback. The project was working and soon Saliba left police work to form a company called Magnet Forensics. He partnered with Adam Belsher (Magnet's CEO) and the business quickly grew. It now has over 200 employees.



Jad Saliba and his team at Dr. Trevor Bell Magnet Forensics in Waterloo, Ontario. *National Content Solutions photo*



Jad Saliba. *National Content Solutions photo*

More than 4,000 agencies now rely on software tools developed by Magnet Forensics Inc. The company's key product is Internet Evidence Finder, which combines AI, advanced search techniques and data visualization to help investigators uncover critical digital evidence. "Terrorism, child exploitation—those are the two areas that's we really care about a lot," says Saliba. Magnet's software helped secure guilty convictions in the case of the Boston Marathon bombing-finding evidence to show Tsarnaev helped plan the attack and was not just "along for the ride." The company's mission is to "seek justice and protect the innocent"—something it tries to do on all levels. Employees support child and victim programs in the local community and Saliba vol-

unteers with anti-child-exploitation groups like Operation Underground Railroad. One recent undercover operation he was a part of in the Dominican Republic led to the rescue of 26 children. Saliba, who's never been one to back down from a difficult challenge, says that living through adversity himself has informed his desire to keep "paying it forward." "The doctors and all the people who worked on the things that saved my life and gave me a second chance at life—I'm very thankful to them for all they do and most of them will never know that they helped me out personally and that's similar to what we do with our software."

JUNE DRAUDE

GGIA citation: Looking to find an alternative solution to children being away and in foster care, EGADZ Saskatoon Downtown Youth Center, together with community-minded investors and the government of Saskatchewan, joined forces to create Sweet Dreams. Using an innovative financing tool—a social impact bond—a first for Canada, Sweet Dreams provides a supported living environment where the family is kept intact and mothers are provided the tools needed to safely parent their children in the short, medium and long term.



Moms together with their children at Sweet Dreams in Saskatoon, Saskatchewan. EGADZ Photo



June Draude. National Content Solutions photo

June Draude was serving as Saskatchewan Minister of Social Services when Don Meikle—Executive Director of the EGADZ Saskatoon Downtown Youth Centre—reached out with a pressing problem: an increasing number of young single mothers who had no place to live. Meikle's idea was to provide a home for these at-risk young women to strengthen the bond between mother and child and to help keep the family together...he just needed funding. That's when Draude remembered a novel idea that was gaining traction overseas in England. "I started thinking, maybe we can do something different," says Draude. Draude, EGADZ, Connexus Credit Union and Colleen and Wally Mah (from North Ridge Development Corporation) came together to create a social impact bond (the first ever in Canada). It was an outcome-based approach: the aim was to keep 22 children out of foster care for six months after they've been through Sweet Dreams. It was estimated that in 5 years as much as 1.5 million dollars would be saved by the Saskatchewan government, while yielding a 5 percent profit back for the investors, who agreed to carry the risk. All of it focussed on supporting young single mothers with daycare, housing, as well as critical literacy and financial skills to help them form better futures for themselves and their children. "That house is just vibrant with young women who have children...and they stayed together, those moms, they went to work, they went to school, they helped build a daycare for their children," beams Draude. Over the past five years, Sweet Dreams has seen an incredible success rate with 53 out of 54 children remaining with their moms. Draude says, "We can put our name on a building somewhere, we can be sponsors, but at the end of the day we all have to go home and say to ourselves—how did we make a difference?" **P**

Jacqueline Milczarek is a longtime national network broadcast journalist, currently President of National Content Solutions based in Toronto, Ontario.



MATCH International Women's Fund provides funding to grassroots women's organizations such as Her Turn, in Nepal, which equips girls and young women with leadership skills, education and knowledge to reject early forced marriage. *MATCH International Women's Fund photo*

Mother of Innovation: How Women Everywhere are Finding Solutions

Too often, when we think of innovation, we visualize an object—a jet engine, an iPhone, a robot—instead of a person. Innovation begins in the human brain, and more and more, the brains sparking the ingenuity that produces change belong to women. In many parts of the world, that change can represent the difference between sustenance and starvation, earning and begging, or life and death. The MATCH International Fund is helping women everywhere innovate to beat the odds.

Jess Tomlin

As the story goes, Apple co-founder and CEO Steve Jobs wore the same thing every single day: a dark turtleneck and jeans. By eliminating the day-to-day decision of which shirt to choose, he freed his mind for bigger, brighter things. Jobs' clothes were unremarkable. His innovations, legendary.

Halfway around the globe, a woman in Iraq dons the dark outer clothing required to move about the streets of Baghdad. She walks purposefully, hidden in plain sight. Hiding is,

in fact, her biggest innovation—specifically, hiding others within a network of safe houses for women escaping violence. Her daily decisions could cost her her life. Blending in is her vehicle for disruption.

As the CEO of the MATCH International Women's Fund, Canada's global women's fund, I am brought to my knees by the stories of innovation and disruption led by women around the world. Like the example of the underground safe houses in Iraq, women and girls in the most marginalized communities are identifying bold solutions to the barriers they face.

But these ideas rarely make headlines. This is why I have made it my life's work to change the narratives around innovation and, as a funder, to seek even better ways to support those first sparks of genius.

Let's start with the very image of *who* innovates. The frenzied inventor in his cluttered workshop. The visionary with a palm-sized computer. The lone male innovator. We are missing some of the most revolutionary ideas of our day if we stop there. Women's ingenuity is all around us. Yet innovations led by the very women who are pushed to the wall are so big and so bright that we often fail to recognize them for what they are: the solutions that will save us all. We don't have to look far into grassroots women's movements to find examples:

In rural Democratic Republic of the Congo, five women nearly lost their land due to patrilineal land rules. These women came together—not only to save five plots of land (which they did) but also to address the realities of climate change in a country that loses a land mass equal to Banff National Park every two years. Domestic workers in Mali, like many domestic workers around the globe, are underpaid, overworked, and at risk within a largely-unregulated industry. Recently, Mali's domestic workers organized to successfully raise the minimum wage for all and mandate no more than a six-day work week. Girls in the mountains of Nepal un-

“I am brought to my knees by the stories of innovation and disruption led by women around the world. Like the example of the underground safe houses in Iraq, women and girls in the most marginalized communities are identifying bold solutions to the barriers they face.”

derstand the dangers of child marriage. They have formed “No Marriage Allowed” clubs to keep each other safe and to educate entire communities about the harmful effects of marrying off little girls.

“Defining innovation may be as straightforward as geo-mapping unicorns. But years of supporting women-led innovations around the globe have pointed us to some patterns and formulas that can be instructive to the philanthropy community.”

Within the MATCH Fund, we call work like this “building the bridge as we walk across it” or “charting a course without a map.” We are inspired by the courage it takes to innovate—especially when failure can be a matter of life or death. The question then becomes, how can we, as a funder, rise to the occasion by also innovating from within? How can push ourselves to be bigger and brighter to support those who need us most?

Defining innovation may be as straightforward as geo-mapping unicorns. But years of supporting women-led innovations around the globe have pointed us to some patterns and formulas that can be instructive to

the philanthropy community.

- 1. More is More:** Often, the most vital community work is done on a shoestring, with the average grassroots women's organization operating on less than \$20,000 a year. Imagine what could be achieved if those at the grassroots had the resources they truly needed. Our role as a funder is to unlock new resources with the same fire in our bellies as the women in the Democratic Republic of the Congo who fight climate change. The innovation is to forge new partnerships, inspire collective action, and change hearts and minds. This is what will tap new funding and “grow the pie.” In my experience, this requires preaching beyond the choir.
- 2. Explore the Margins:** The grittiest and most urgent work cannot be found in the mainstream. As funders, we must scout emergent groups with intention. A few years ago, I met a young woman from India who lives with a vision impairment. She wanted to create an app to connect women with disabilities to caregivers. She didn't yet have an official nonprofit organization, but she was a woman on a mission. Because she had the courage to try a new idea, we had the courage to be an early adopter. Her idea has since blossomed into an official organization that serves people with disabilities throughout Mumbai.
- 3. Shift Power:** Innovation within the funder community can sometimes be sparked by asking

this simple question: who's missing? The MATCH Fund found that decisions about who and where to fund were often made without consulting community experts. As Shirley Chisholm, the first Black woman to win a seat in the United States Congress, has famously said, "If they don't give you a seat at the table, bring a folding chair." The MATCH Fund has partnered with Nobel Women's Initiative to bring young and emerging activists, Nobel peace laureates, and regional women's funds to the decision-making table with government bodies and global philanthropists.

4. Direct funding is catalytic:

The shared economy (i.e. Uber, Airbnb) has some powerful lessons for the philanthropy sector, namely, the power and economic value of directly resourcing the grassroots. In international development work, the "middle" often

manifests as country offices of large international non-governmental organizations (iNGOs). While an important part of the humanitarian and development response, country offices do create another layer of bureaucracy, which means that donations take longer to get to the people for whom they are intended. The MATCH Fund's innovation—like other women's funds around the world—has been to give directly to the people and movements making change on the ground.

5. **Come Early. Stay Late:** Being an early adopter is, indeed, important. So is being a partner over the long haul. Coming on as one of their first funders, the MATCH Fund supported a group of sex workers in Nicaragua in 2015. More than a seed investment, this grant allowed the group to more than double in size in a three-year period,

reaching some of the most marginalized and underserved women in the country. When we innovate the way that grantmaker/grantee relationships work—seeing them instead as partnerships—funders can truly support local-led innovations from tiny sparks to roaring flames of change.

Our everyday decisions do deeply impact our capacity to innovate—and to support the brave women and girls who are creatively and courageously driving transformation within their communities. Paradoxically, these innovations—a term surrounded by words like "hack" and "disrupt"—are ultimately what will make the world a more consistent and equal place for women. That is, after all, the biggest and brightest goal. **P**

Jess Tomlin is president and CEO of the MATCH International Women's Fund. She was named 2017's Most Innovative Woman of the Year by the Stevie Awards.



THE WEEK IN
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Last year's True North conference, launched by Communitech CEO Iain Klugman (above left) produced the Tech for Good Declaration to ensure that organizations aspire to build solutions that benefit people and the planet. Sara Jalali, Communitech photo

The True North Mission: Slow Down and Fix Things

The first wave of the Fourth Industrial Revolution has introduced extraordinary innovations, connectivity and progress. It has also put the power of technology into the hands of players who do not necessarily prioritize the collective good. Communitech's Iain Klugman has taken a leadership role in fashioning solutions to some of the most wicked problems generated in the past two decades.

Iain Klugman

Remember when the power and promise of technology, the internet and digital tools to connect people and harness civic good seemed to herald a human renaissance? The traditional gatekeepers of thought and opinion were suddenly forced to give way to a new, vibrant, democratic platform—the web. The marginal suddenly had a voice. Facebook and social media connected people, helping give rise to movements like the Arab Spring in 2011. We marvelled at the power and utility that new, connected devices placed in our pockets. We happily adopted new apps, new payment methods, new entertainment options, new communication channels. A better world appeared to be at hand.

Today we live in what seems to be an increasingly divisive, polarized, and even mean-spirited world. Instead of civic good, digital tools have been used to harness and amplify malevolence and undermine democratic and scientific pillars. We've watched the rise of anti-vaxxers, a war on immigrants, the entrenchment of fake news, conspiracy theories and the alt-right. We've seen a growing populist wave fuelled by anger and exclusion. We've watched data become weaponized. And we've all grown increasingly uneasy with the emergence of "surveillance capitalism" as practised by tech's big players.

Does the good of tech outweigh the bad? Can we harness the genius of the collective to reverse what's been unleashed? Can the internet be saved? We think it's time we had a conversation about just that. Welcome to the rationale behind True North 2019, June 19-20 in Waterloo Region. It's the second incarnation of a conference and community festival that Communitech launched last May. The idea was, and remains, to tackle tech's big questions, to engineer an opportunity to surface the important issues that exist at the intersection of humanity and technology and set tech back on its path of promise. As we said in the days leading up to the inaugural True North conference, it's time to eschew the tech-bred mantra of "moving fast and breaking things," in order to slow down and fix things.

To quote Sir Tim Berners-Lee, best known as the inventor of the World Wide Web and a keynote speaker at True North 2019, "It would be defeatist and unimaginative to assume that the web as we know it can't be changed for the better." For the past 22 years, our mission at Communitech has been to help companies start, grow and succeed, knowing that the prosperity of our communities and our country depends on entrepreneurs and innovators seeking out and shaping the future, tapping emerging markets, creating new markets, and competing among the world's best. But if tech's success means rending the fabric of our society as a by-product, then

“We've watched data become weaponized. And we've all grown increasingly uneasy with the emergence of 'surveillance capitalism' as practised by tech's big players.”

it's time to redefine that success. Consumers won't buy a product that they fear. Society won't adapt to change that causes harm. Profit at the expense of people, and the planet, is ephemeral. There's no better time for that conversation than now. Concern about privacy, artificial intelligence and lost jobs is not diminishing, it's growing. So, too, are income disparity, extreme weather due to global warming, and anti-immigrant populism.

Among the legacies of last year's True North conference was the creation of a *Tech for Good Declaration*, a living document that set out to guide the industry as it grappled with ethical concerns around artificial intelligence and to ensure that organizations aspired to build solutions that benefited people and the planet.

It's important that we build on that momentum, expand the conversation and deliver insights that lead to solutions. In that regard, this year we've laid out three key themes that we believe are in need of urgent exploration, themes that broadly align with technology concerns that have been laid out in the popular media, among civic thinkers and by political and corporate leadership.

The first is titled *The Age of Relearning*, recognizing that as technology disrupts the job market, we must equip our workforce with the tools necessary to rapidly respond, and that government, learning institutions and industry must partner to achieve that goal. We need to figure out how to invest in humanity to future-proof ourselves, our communities and our organizations.

We'll also be taking a deep dive into a theme we're calling *Living Digital*, recognizing that as technology makes us more productive and con-

nected, it also impacts our safety, our privacy and our physical and mental health and well-being. *Living Digital* will tackle the ways that technological change continuously alters our lives—our homes, our commute and our relationships with one another and the planet.

Finally, we'll be exploring an idea we're calling *Bridges, Not Walls*, rooted in a belief that a united society is stronger than a divided one; that measures can be implemented to curb tech-bred hate and that technology itself can be a solution and can help make our communities smarter, safer, and more prosperous.

No community I know of is better at building bridges than Waterloo Region. It has a barn-raising ethos hardwired from generations of Mennonite values centred on co-operation and generosity. It's the place where the smartphone was born. And it's now one of the world's most dynamic technology clusters.

Canada, too, has a history of bridge-building, first among French and English-speaking peoples, lately welcoming refugees and immigrants from the world over, knowing that diversity and inclusiveness strengthen and enrich a society, and that problems are solved by working together. Successful technologists always begin with a problem that needs solving. That, we have laid out plainly before us. Now it's time for solutions.

It's time to roll up our sleeves and work together, to bridge the gulf between technology's heralded promise and the problems that confront us. It's time to, as we say, slow down and fix things.

We can. And we must. **P**

Iain Klugman is President & CEO of Communitech, based in Waterloo Region.



"Women entrepreneurs are changing the world by leading with values and ambition," writes Forum for Women Entrepreneurs CEO Paulina Cameron. *iStock photo*

It Takes a Network

The numbers reflecting performance among women in business are remarkable. Sixteen percent of small and medium-sized enterprises (SMEs) in Canada are majority women-owned. Eight percent of women-majority-owned SMEs export. Six percent of venture capital in Canada goes to women. In the United States, start-ups run by women generate 78 cents for every dollar invested, while male-owned counterparts generate only 31 cents per dollar. Forum for Women Entrepreneurs CEO Paulina Cameron provides the story behind the numbers.

Paulina Cameron

Reading the statistics on women-led businesses can generate more questions than answers. If the "business case" for women entrepreneurs is so clear, then why have the scales not tipped and why has progress stagnated? Some argue that we need to appeal to the "passionate commitment of senior leaders." Others insist that women just need to be more confident and become stronger advocates for themselves. Undeniably, the system has restricted access by women and underrepresented groups to the privilege and power needed to enjoy the success men have historically benefited from.

The silver lining is that we are finally starting to see the scales tipping.

As CEO of the Forum for Women Entrepreneurs (FWE), I get to spend my days with women in business, and those who walk the talk in supporting them. FWE is in its 17th year of supporting women across in Canada in running successful businesses on their own terms. With more than 4,500 women entrepreneurs supported to date, we have spent the time and resources truly listening and understanding what works and what is needed to elevate women entrepreneurs, and have looked at key data to support our findings.

We know that when women entrepreneurs are meaningfully supported through our targeted programming, they are three times more likely to be in business after five years than the national average. We also know that their ability to raise capital changes significantly—last year's cohort of semi-finalists of our access to capital program, Pitch for the Purse, raised a cumulative \$18M within a few months of graduating. Knowing the statistics about women and fundraising should leave you impressed with that number. What have we seen to be effective in supporting women entrepreneurs? It boils down to democratizing access, with a serious dose of magic. We know that if we can enable women entrepreneurs to have access to the education, capital and networks they need, and then get out of their way, they will be wildly successful. What does this look like practically? The most important access points for women are access to networks and access to education. Networks and education then provide the needed tools, capital and confidence that allow women entrepreneurs to thrive.

Access to powerful networks is important across a few dimensions—champions, backers and peers. Champions and backers are those individuals who are able to leverage their power to either bring a woman entrepreneur to the right table and advocate on her behalf, or, are able to back her business and potential, signalling to others to come on board. In a country where fewer than 14 percent of part-

“We know that when women entrepreneurs are meaningfully supported through our targeted programming, they are three times more likely to be in business after five years than the national average.”

ners at Canadian VC funds are women (funds that lack diversity are much less likely, or not at all likely, to invest in diverse entrepreneurs), this requires both men and women to rally around women entrepreneurs to make change happen, as well as a need for more women-only focused funds like SheEO or Women's Enterprise Centres. Organizations like FWE are creating a pathway for women to understand how to navigate the funding landscape, and almost more importantly, are playing the role of a trusted source of insight.

A community of peers is one of the game-changing access opportunities for women entrepreneurs. We've all heard the adage “you can't be what you can't see” and the quote “there's a special place in hell for women who don't help other women.” Every single story or piece of feedback we receive from our cohorts contains gratitude for being in a room surrounded by peers with whom they feel an instant connection with, and whose stories resonate with them deeply. I have sat in the rooms with them and witnessed the power unleashed when they figure out how to support one another. One of the elements of our intensive bootcamp is a Mindshare: each woman is invited to put to the group a challenge she is currently facing in her business. Her peers then spend time sharing their perspectives, their experiences, their questions, and the helpful introductions they can make. In these rooms, we witness the power that each of them holds to support one another—a truly democratized access to support and networks. From movements like “Babes Supporting Babes” to “Girl Boss Rally” to “Me Too”, women are step-

ping up to actively support one another in a way that is shifting the tides.

Democratizing access to quality and targeted education is the other component that gives women the confidence and tools they need to apply to their business. Too often, we hear that women are more likely to defer decision making to someone within or outside of their business because “they have an MBA and I only finished high school.” Women's intuition and their ability to make astute, data-driven and researched decisions, has been deeply undermined. Through the delivery of education that meets women where they are, that seeks to uplift them and highlight their innate strengths and intuition, that speaks to them in a way that feels accessible, women begin to recognize how to put to practice their intuitive ability to drive their business, on their own terms.

Democratizing access to education and networks is not necessarily a novel suggestion. But innovation does not always lie in the “what”. Sometimes it is contained in the powerful “how”. We've learned that the magic and values that we bring into everything from how our programs are designed with the intent of “leaving no woman behind”, to how we execute our events and programs with women's comfort and brave space in mind, make all the difference.

Women entrepreneurs are changing the world by leading with values and ambition—it's time we democratize the access to networks and education that they need in order to run successful businesses and thrive. **P**

Paulina Cameron is the CEO of the Forum for Women Entrepreneurs.

Q&A: Innovating Around Obstacles

Living with muscular dystrophy hasn't stopped Maayan Ziv from becoming a photographer, activist, and innovator. By crowdsourcing information about physical structures, AccessNow, the app Ziv launched in 2015, allows people with mobility challenges to know what they can expect in a given location before they displace themselves. It has proved so popular that Ziv, 28, won Startup Canada's Resilient Entrepreneur of the Year Award for 2016. Policy Magazine Social Media Editor Grace MacDonald spoke with Maayan Ziv about accessibility, technology, and where the two meet.

Grace MacDonald

Policy Magazine: You've said that your own experiences inspired the creation of AccessNow. Was there a particular incident that acted as a catalyst?

Maayan Ziv: In the fall of 2014 I began my Graduate Studies at Ryerson University. It was the first week of classes, and my classmates and I had planned to go celebrate the beginning of the year. Someone had picked a restaurant off campus and I just could not figure out if the space was going to be wheelchair accessible for me. When we showed up at the restaurant, the place was totally *not* accessible. I realized right then and there that this challenge of navigating spaces and encountering barriers is one of the biggest problems in my life. I went on to focus my thesis on accessibility, which eventually led to the development of AccessNow.

Policy Magazine: On the flipside, is there a particularly good experience



Maayan Ziv, founder of AccessNow.

that comes to mind? A particular building or company that you would point to as an example for future architects or designers?

Maayan Ziv: There are some outstanding examples of inclusive design that we really should celebrate more in Canada. When it comes to the built environment, the Canadian Museum for Human Rights in Winnipeg and the new Canada Science and Technology Museum in Ottawa have really shown leadership when it comes to designing an inclusive and well-rounded experience for all to enjoy. From little details about fonts and colour contrast to integrating cutting edge technologies that enable people with disabilities to engage, I think there's a lot we can learn from buildings like this and the leadership teams behind them.

Policy Magazine: How does this tie into the issue of access in theory vs practice? Is AccessNow trying to close that gap?

Maayan Ziv: When I began building what would become AccessNow I was very conscious of the fact that I did not want to create another awareness campaign. The idea was to find a solution rooted in action, that could actually create positive impact right away. Through this work, mobilizing communities and creating a useful accessibility resource together, the ripples of education and awareness building have followed. Nowadays, much of my work consists of showing people—not telling them—what the power of a like-minded community can accomplish in creating a more accessible world. In doing this, we're often also engaging with people who have yet to learn about the importance of accessibility and invite them to be part of our movement, a movement driven by action.

Policy Magazine: AccessNow includes restaurants, cafés, hotels, airports,

“ The idea was to find a solution rooted in action, that could actually create positive impact right away. Through this work, mobilizing communities and creating a useful accessibility resource together, the ripples of education and awareness building have followed. ”

government buildings, and more. Has this broad approach presented any challenges?

Maayan Ziv: The idea is to share as much information as possible about all kinds of places and experiences around the world. What we are seeing is that many of our users are more motivated to share success stories, positive ratings, of places they've visited. We also have a lot more information about lifestyle and entertainment establishments because these are the types of places people like to go to do things. I don't think that's necessarily a bad thing, although we certainly have begun to think about how we can collaborate with specific groups that have more insight on other areas as well, like government buildings, libraries and more.

Policy Magazine: Do you feel as though your experience with disability has influenced how you approach innovation and problem solving?

Maayan Ziv: Absolutely. Living with a disability has given me a really unique perspective and as I've grown, this is something I've really learned to love. I've basically been problem solving since I was a very young girl, because the world hasn't really been built for someone like me, and if I want to engage with my



“The idea,” says Maayan Ziv of her accessibility app, AccessNow, “is to share as much information as possible about all kinds of places and experiences around the world.”

friends or community—or do anything, really—I'm often needing to think outside the box to figure out how I'm going to do things. This element of creativity has built up a pretty strong sense of resilience within me. I know and expect that usually when I go out, I'll experience a barrier somewhere, but I keep going anyways and I roll with the punches. These are qualities every good entrepreneur should have.

“ I know and expect that usually when I go out, I'll experience a barrier somewhere, but I keep going anyways and I roll with the punches. These are qualities every good entrepreneur should have. ”

Policy Magazine: Accessibility needs are sometimes framed as demands for special treatment. Do you feel that innovation has or can help to combat this?

Maayan Ziv: It's really time we get away from thinking as accessibility as an afterthought or something we need to do to check off a box. Accessibility is not just about empowering people with disabilities, but can actually empower everyone. Accessibility and inclusive design help us build better products and better experiences and this can often lead to innovation. I like to encourage people to see accessibility as an exciting asset. **P**

Grace MacDonald is social media editor of Policy Magazine.



Anti-Brexit demonstrators outside the British Parliament, London. April 3, 2019. ChiralJon Flickr photo

The Last Piece on Brexit?

After careening through British politics and continental nightmares like a runaway Routemaster, Brexit came to a screeching halt in April when the long-suffering Donald Tusk announced a Brextension until Halloween. Luckily, we have veteran diplomat and our own senior foreign policy pen Jeremy Kinsman to fill our Brexit fix.

Jeremy Kinsman

Prologue: April 2, 2019, email from editor to writer on contribution to next issue: “You might want to take a bite out of Brexit—after the next big cliff-edge, hair-on-fire deadline.....”

Writer to editor: “Sure. The LAST piece on Brexit. Unless it’s not. It could go on. For ever and ever.”

Editor:

“NOOOOOOOOOOOOOOOO!!!!!!”

At their summit in Brussels on April 10, Britain’s Brexit-fatigued European Union partners, faced with Prime Minister May’s inability to get her Parliament to agree to her deal to exit the EU 27, and with the prospect of a chaotic “no-deal” Brexit, agreed to a

new deadline of October 31. No one knows if by then Parliament can produce a majority in favour of any specific option, though a hefty majority opposes a no-deal Brexit.

A lot of Conservative Party MPs want Prime Minister Teresa May gone for mucking up Brexit and because she seems to be entirely without the emotional intelligence that a political leader needs. She leapt into a snap general election in 2017 to win a personal mandate but her tone-deaf and wooden performance lost the Conservatives their majority. Her political authority has been drained by successive blunders. Instead of bringing the confused and divided country together, she played only to her threatening right-wing, braying that “Brexit means Brexit,” when actually the whole mess turns on the fact there is no general agreement on its meaning at all.

Her own exit deal, which was laboriously and more or less secretly negotiated over two years with Britain’s former EU family, has been rejected by Parliament three times. But she stubbornly believes it can still become acceptable to a majority in the House of Commons if they are faced with a punishing “no-deal” Brexit as the only alternative.

In Canadian hockey terms, this is called “ragging the puck”—to run down the clock. It is also perilously close to the popular if clinically dubious definition of insanity attributed variously to Mark Twain and Albert Einstein; doing the same thing over and over and expecting a different result. This sad outcome caps a long history of nativist ambivalence about Europe, even outright antipathy in certain circles. The Duke of Wellington was proud to say, “We have been, we are, and I trust we always shall be, detested in France.”

In 1955, when the Europeans’ defining political project was forming, Cabinet Secretary Burke Trend advised Ministers that “On balance, the real and ultimate interest of the U.K. is that the Common Market should collapse, with the result that there would be no need for the U.K. to face the em-

“London officials received ample advice—including from referendum-scarred Canadians—of the dangers of referenda in parliamentary democracies: avoid simplistic binary questions; keep the outcome advisory, not decisive; and don’t bind the nation’s future for generations by a majority of 50 percent plus 1.”

barrassing choice of joining it or abstaining from joining it.” Now, they will have done both. After French President Charles De Gaulle—who suspected the U.K.’s core attachment was to the U.S.—twice vetoed U.K. applications to join the European project, the U.K. joined in 1972. But they remained ambivalent as it became the European Economic Community, and ultimately the European Union, pushing back against closer integration, while promoting enlargement to dilute the EU’s deepening centre.

The pro-Brexit notion that Britain is oppressed under the boot of the EU’s laws and institutions is hogwash. Though the Maastricht treaty (the 1992 Treaty of the European Union) avowed an “ever-closer union,” the EU project never aimed for federation but remained a union of states whose national parliaments are ultimately supreme. Members chose to pool sovereignty in functional matters of shared interest as an obvious source of strength in an interdependent world. The British parliament exercised the right to opt out of the European social model, EU labour codes, the Charter of Fundamental Rights, the Social Chapter of the Maastricht Treaty, and such defining EU-wide undertakings as the Euro and the Schengen Treaty on open borders.

Unfortunately, in the referendum campaign David Cameron gambled would neutralize dissident nationalists in his party (“those bastards,” according to prior PM John Major), he never exploded anti-European myths, or underlined the Union’s achievements. He presented U.K. membership as a commer-

cial contract, devoid of value-driven meaning beyond convenience.

London officials received ample advice—including from referendum-scarred Canadians—of the dangers of referenda in parliamentary democracies: avoid simplistic binary questions; keep the outcome advisory, not decisive; and don’t bind the nation’s future for generations by a majority of 50 percent plus 1.

British political strategists and officials believed they knew better, and anyway, Cameron never thought he’d lose. They didn’t see that the Leave option in separations has more emotional traction than the status quo. It milked the culture of concocted nostalgia for a sentimentalized heritage that fuels TV programmers’ schedules every evening. Post-war and post-imperial Britain never caught up with reality. This explains why the genuine drama of the war itself is re-lived again and again.

One of Teresa May’s goofs on becoming prime minister was to rush to Washington to gush to President Donald Trump, who had unequivocally supported Brexit, denouncing the EU as an adversary of the U.S. Teresa May saw his enthusiastic welcome of the referendum’s outcome as a politically useful reassurance that a new “global Britain” could start its post-EU adventure with the guarantee of the mother of all bilateral relationships. Much of Britain was aghast at her hasty invitation to him to visit the U.K. Trump’s approval rating in Britain is about what it is almost everywhere else, well below water. After a delicate downgrading of its trappings, Trump made a truncated visit,

barely skirting London where a million people and one infamous Baby Trump balloon demonstrated against his presence. He has since periodically derided British pluralism and even vaunted the prime ministerial credentials of May's principal rival, narcissistic showman Boris Johnson.

Now, May is holding onto her job by her fingernails. Un-"exonerated" by Mueller, Trump also has his back to the wall. So, one, another, or both of the political principals has revived the invitation for a full state visit, formally from the Queen (who surely at this stage deserves better). Thus, in early June, *en route* to Normandy for the 75th anniversary of the D-Day landings, Trump will attend with PM May a nostalgia-laden and image-boosting event June 3 in the harbour of Portsmouth, billed as "one of the greatest military spectacles in recent history."

Ever since President Kennedy's solid support for European integration jarred PM Harold Macmillan (in 1958 he had said to De Gaulle of the emerging Common Market, "I beg you to give it up."), British prime ministers have registered unequivocal U.S. support for U.K. membership in the EU, in a formula for divided affection. Tony Blair put it this way in an address to the U.S. Congress in early 2001: "People ask me to choose between Europe and America. I won't. I'll have both." (Two days earlier, when he spoke in Ottawa's House of Commons, he spoke of "North America," but what the hell...) Fatally, Blair tried to get too much of both, investing politically in promoting U.K. leadership of the EU and then surprisingly fronting George W. Bush's fraudulent claims of Iraqi WMD to justify a divisive Anglo-American invasion that catastrophically turned the Middle East into a failed region. It destroyed Blair's reputation as well as the Labour Party, which returned to the pre-Blair class dogma that eventually vaulted the retro socialist Jeremy Corbyn into the leadership. Now, the British public turns anguished eyes from May to Corbyn, who leads in the polls, and then to May's Conservative Brexiteer challengers, the preposterous Johnson

and the pantomime Victorian aristocrat, Jacob Rees-Mogg. Many feel betrayed by failure of the whole national political class.

Having followed passionate and often intelligent debates over the Brexit dilemma in the U.K. Parliament, I see instead benches of patriotic, honest public servants trying to knead the political machinations of leaders' ploys and prevarications into a national outcome of dignity and decency. The basic dichotomy of English identity remains. In London, Britain's role as a European lead nation is obvious, as is its advanced pluralist society. Walking the Wiltshire hills, rural England seems timelessly distant from both Europe and from immigrants. Immigration was not a top U.K. public preoccupation until the racist campaigns of Trump buddy Nigel Farage and his UKIP mob made it a false one. Cameron and his threatened party threw them the bone of the fateful referendum. Britain is an over-crowded island, not "overrun" by immigrants, and certainly not by workers from the EU, without whom the National Health Service and most restaurants and pubs, as well as plumbing, would cease to function.

Is there a happy ending to this fiasco? The old British adage, "Cometh the hour, cometh the man" (or woman) might still loosen the political deadlock of dueling, Conservative Party egos. The House of Commons that has been trying to wrest control from the manipulative and embattled crew at Number 10 may yet vote to support a customs union with the EU or another formula that would keep essential U.K. interests intact, including an open Irish border. Britain would still sacrifice its enormous leverage as a lead member of a 500-million strong European Union, and could be adrift diplomatically for a generation. But the U.K. would be more likely to keep Scotland and Northern Ireland in, and with wise and innovative policies could channel its human capital toward strong business outcomes.

Brexiteer hardliners and May herself

decry any such compromise as betraying "the decision of the British people" to seek freedom from all EU regulations and end free movement of EU workers into the U.K. (as if that is what 52 percent meant by voting "leave"). Alternative scenarios are not rosy. Given the shambolic process, in London and with EU partners, relations with Europe are apt to be bitter for years without a successful compromise. Just as the world is beginning to look at Trump's reign in America as being not in spite of good Americans but because of dumb Americans, so the British image in Europe is deteriorating. The 27 remaining EU members want to move on to their own pressing challenges. Wistful Euro-regrets about Brits leaving the family (though British Eurocrats are opting for Irish and Belgian passports in droves), cede to overwhelming impatience to get it done.

In Brussels this month, I found a certain humility and determination to address reforms, especially the need to correct the impression of a democratic deficit in EU decision-making. Leaders accept that with the U.S. evacuating leadership and China bristling with ambition, the EU also has to face up to its internationalist leadership responsibility (to which Canada is gravitating as a core ally). The Brexit experience has at least turned off any urge anywhere else in the EU to imitate pulling out. Public support for the EU is higher than in years. The populist nationalism of which hard Brexit and Trump are partnered versions has probably hit its high-water mark, though populists Salvini, Orban, LePen, and their new guru of destruction, Steve Bannon, may not yet have the memo.

What about the populist nationalists ruling Britain's Conservative party? Once they can no longer pin all and any grievances on the EU, will their bluff collapse? And who will take it from there?

Britain's many friends hope for the best. **P**

Contributing writer Jeremy Kinsman is a former Canadian ambassador to Russia, the U.K. and the EU. He is affiliated with University of California, Berkeley.



Former comedian and actor who played the president of Ukraine in a Netflix series, Volodymyr Zelenskyy, celebrates his real-life victory in Kyiv, April 22, 2019. Volodymyr Zelenskyy Twitter photo

Unscripted: The Serious Stakes for Ukraine's New Leader

*In the series *Servant of the People*, Volodymyr Zelenskyy played Vasyl Petrovych Holoborodko, a school teacher who becomes the unlikely president of Ukraine. On April 21st, Zelenskyy lived that high-concept hook in a non-fiction setting. The issues facing a Ukraine turning towards Europe but still under Moscow's thumb are serious and complex. Our resident Ukraine expert, Yaroslav Baran, lays out the context, the tensions and the stakes for the man and the country.*

Yaroslav Baran

By the time Ukraine's voters cast their ballots in the second round of presidential elections on April 21st, it was all but certain what the outcome would be—change was in the air. Indeed, when the ballots were counted, 73 percent of voters had voted for a new president. “Chocolate King” oligarch Petro Poroshenko—president since 2014—was being dethroned by a 41-year old actor, comedian, and, aside from playing the president on TV, political neophyte.

The comedy of the occasion is delicious. President-elect Volodymyr Zelenskiy's biggest claim to fame is his hit television satire, *Servant of the People* (available on Netflix Canada) in which he plays a "regular guy" school teacher who runs for president and, improbably, wins. As often happens in Ukraine, life imitates art imitating life.

Some have chosen to assess Zelenskiy's victory as yet another triumph of populism over establishment, but there was nothing particularly populist about Mr. Zelenskiy's campaign. His iconoclasm was limited to campaign tactics—eschewing traditional rally and glad-handing whistlestop tours for a social media-centric blitz. He became known for his frequent Instagram video posts that Canadians might find eerily reminiscent of Rick Mercer rants. Populism, as we have come to understand the term in recent years, connotes a degree of demagoguery and exploitation of social cleavages, whereas there was something of a hopeful and unifying air in Zelenskiy's tone—an overall message that Ukraine could do better, and that it's time to transcend old debates. Not populist. Simply a vote for change. More specifically, a vote for change born of impatience.

Poroshenko does deserve credit for his accomplishments. He inherited a bankrupt state left behind by his Kremlin-puppet predecessor, with less than a million dollars left in the coffers. In a single five-year term, he embarked on broad-scope economic modernization despite the enormous cost of fighting a war with Russia. He tackled comprehensive institutional reform. He rebuilt the army—again, while fighting a war with Russia. He gutted and rebuilt state administrative infrastructure, down to replacing every computer his administration inherited for fear of ubiquitous Russian spyware. He modernized the police force. He signed a revolutionary visa-free travel treaty with the European Union. He concluded numerous free trade agreements, including

“ Outgoing president Petro Poroshenko was associated with the old guard, and was a minor oligarch in his own right. Zelenskiy, in contrast, is a new face, not part of the political establishment. That's what the voting public seemed to be yearning for. That's what they are getting. ”

with Canada. And his crowning political achievement: he worked with Istanbul to wrestle the Ukrainian Orthodox Church out of the control of the Moscow Patriarchate—a church structure that has long been a blatant foreign policy tool of the Kremlin.

But for the residents of Ukraine, the pace of change was too slow. Bread and butter issues tend to trump institutional change and symbolism. The sluggish economy, rising cost of living, and wages that have failed to keep pace have left the electorate unsettled and impatient. His biggest Achilles' heel, perhaps, was corruption. While Poroshenko did take a bite out of Ukraine's post-Soviet corruption culture, his reforms were perceived as too little, too late, and too slow.

“ In his first public statements following his election victory, Zelenskiy re-affirmed his commitment to Ukraine's Euro-integration. He clearly knows what his country wants. ”

Zelenskiy capitalized on this. He focused on regular folks' standard of living, and dismissed Poroshenko's campaign as obsession with symbolism. He continually repeated that progress should

be quicker, and also pledged to only serve a single term—a clear suggestion that those who stay in office indefinitely become corrupted by it. A generational shift and political house-cleaning has occurred. Outgoing president Petro Poroshenko was associated with the old guard, and was a minor oligarch in his own right. Zelenskiy, in contrast, is a new face, not part of the political establishment. That's what the voting public seemed to be yearning for. That's what they are getting.

Zelenskiy also took a more tempered approach to language politics. In a country where a large minority speaks Russian as its mother tongue following three centuries of forced russification, the issue can be sensitive. While places like Quebec and Ireland are no strangers to political tension over linguistic renewal policies, Ukraine's challenges are much more complex than merely balancing individual rights with collective rights and historical redress. Most Ukrainians no longer see language as a political statement, but rather an accident of history. But the Kremlin has weaponized language and continues to use it as a pretext for the revanchist irredentism that governs its foreign policy. The Kremlin has declared by fiat that the Russian state has a holy obligation to be the protector of all Russian-speaking peoples, regardless of ethnicity, no matter where they live. That could mean Georgia, Ukraine, Estonia or North York. Indeed, days after Ukraine's election, Russia started to offer passports to any and all Russian speakers in the Donbas region of Ukraine's

east. Passports equal citizenship. Citizenship equals expats. Expats mean people who might “need to be rescued” from the state in which they are residing. It’s step one of the playbook used in Crimea, five years ago, as a pretext for invasion. It’s also a modern twist on Germany’s pretext for invading Czechoslovakia in 1938.

“On a demographic note, once Zelenskiy formally assumes office, Ukraine will interestingly become the only country other than Israel to have both a Jewish president and Jewish prime minister.”

In his first public statements following his election victory, Zelenskiy re-affirmed his commitment to Ukraine’s Euro-integration. He clearly knows what his country wants. He knows the polling. And he refers to this as a decision that has already been made well before he entered public life.

This is perhaps the most significant lesson of this election. While all electoral battles draw contrast, this election was not between two competing *visions* or paths for the country. It was a joust between two different *people*, who largely share a common centrist, reformist, pro-European direction. In that respect, the election itself was a significant victory for the legacy of the Euromaidan “Revolution of Dignity” of 2014-2015. Ukrainians should also take solace in the regional breakdown of the final vote. The country has traditionally been known for significant cleavages between the east and west in both voter behaviour and political vision. Zelenskiy won the final round of voting with a majority across all regions—a national uni-

ty outcome. The country emerged united in both its choice of leadership and in its stated economic and foreign policy direction.

On a demographic note, once Zelenskiy formally assumes office, Ukraine will interestingly become the only country other than Israel to have both a Jewish president and Jewish prime minister. One would hope this outcome might finally put a spike in the relentless disinformation campaigns by the Kremlin and western journalists on its payroll to portray post-Maidan Ukraine as rife with neo-Nazis and anti-Semites.



Servant of the People is a Ukrainian political satire comedy television series that premiered on 16 October 2015. The show tells the story of Vasyl Petrovych Holoborodko (Volodymyr Zelenskiy), a thirty-something high school history teacher who unexpectedly wins election to the presidency of Ukraine. *Wikipedia photo*

There are, however, legitimate concerns about Zelenskiy and his program.

First, he proposed a referendum on joining NATO. While the move was clearly intended as a side-step of what he thought might become a divisive issue, it probably

was not a wise road to take. Polling data already shows a clear majority in favour of NATO integration, and across all regions of the country. That being the case, in a world of electoral meddling, St. Petersburg troll farms and Brexit, do we really need more referendums that can fabricate new socially divisive outcomes where they don’t exist?

Second, Zelenskiy has been hounded by suggestions he is too tight with Ukrainian oligarch Ihor Kolomoisky, who lives in Israel and owns the television empire that propelled the actor to fame. Zelenskiy would be wise to buttress himself against allegations that he is a puppet or front man for yet another business empire. They generally run counter to the brand he has so carefully crafted.

There was no shortage of irony to the 2019 presidential election in Ukraine. As one columnist wrote in *The Guardian*, it shaped up to be “quintessentially Ukrainian: a president who promised to take on the oligarchs but is actually an oligarch himself, against an actor known for playing a fictional president who takes on the oligarchs, but who is in fact controlled by an oligarch.”

There will be interesting times ahead for Ukraine, but probably more stable ones than following most presidential elections in the post-Soviet era. Mr. Zelenskiy’s first name—Volodymyr—literally means “peaceful ruler”. Perhaps he will be blessed with a calm and peaceful tenure. The country could use a stretch. **P**

Contributing writer Yaroslav Baran is a principal with Earncliffe in Ottawa. He has also led numerous democratic and capacity-building projects in Ukraine.



Foreign Affairs Minister Chrystia Freeland addresses a meeting of the LIMA Group in Ottawa as Prime Minister Justin Trudeau looks on, February 4, 2019. Adam Scotti photo

The Case for Canada Advancing Democracy

The early years of the 21st century have been marked by two seismic global phenomena: The Fourth Industrial Revolution and the retreat of democracy. Not only have countries such as Venezuela and Hungary witnessed a rollback of freedom; the United States, the world's flagship democracy, has been besieged by dysfunction. In a piece adapted from his recent presentation to the Standing Committee on Foreign Affairs, Tom Axworthy writes that Canada has a role to play in turning the tide.

Thomas S. Axworthy

Democracy and human rights are intrinsic to Canada's identity and traditions. They are among the values we hold most dear. Much of the world's population, however—nearly 40 percent, according to Freedom House—does not enjoy these liberties. Worse, the trends are all going in the wrong direction; for 13 years, there has been a decline in the number of countries improving their democratic status. And, as the wave of democratization rolls back in many countries, there is an ebb tide in established democracies as populist nationalism ignores established norms.

Retreating democracy in much of the world is not only a moral outrage that should concern freedom loving men and women everywhere, but it is a serious danger too. Weakened democracy leads to instability which can result in conflict and violence. The retreat from democracy in Venezuela, for example, has led to mass protests and violence in that once prosperous country, forcing three million Venezuelans, nearly 10 percent of the country, to flee, causing a refugee crisis, in turn, in Colombia. Preventing a crisis is always better than managing a crisis and the relatively modest amounts spent on good governance, the rule of law, pluralism and constitutional reform are true value for money if they can prevent a state meltdown.

Thomas Carothers, the dean of scholars writing on democratic development, has recently written that “authoritarianism appears to be gaining a global surge of self-confidence.” In the Freedom House 2019 Democracy Index, for example, Hungary’s status declined from free to partly free due to sustained attacks on the country’s democratic institutions by the governing Fidesz party. In 2018, Freedom House reports there were declines in democracy of 35 percent in Turkey, 30 percent in the Central African Republic and 23 percent in Venezuela. In 2018, Freedom House estimated that 39 percent of the world’s population was free, 37 percent not free and 37 percent partly free.

There was a democratic wave after the fall of the Berlin Wall and the Soviet Union’s collapse, but this surge of progress has stalled and is now being rolled back. There are few quick wins in democratic development. Many countries moved positively forward after 1989 but progress stalled, and then setbacks occurred. Democracy is hard: Hungary, for example, became free in 1990 but, according to the index of Freedom House, then went without progress for 13 years (without improving transparency, financing of parties etc.), declined steadily for 5 years (moving against media freedom etc.) and in 2019 fell

“Retreating democracy in much of the world is not only a moral outrage that should concern freedom loving men and women everywhere, but it is a serious danger too.”

back with a thud under Prime Minister Viktor Orban.

The current ebb and flow of democratic development in much of the world is depressing but perhaps to be expected. What is less normal is the distemper of populist nationalism that has turned so many democratic nations inward. Demagogues in Europe have blamed refugees and migrants for wage stagnation and income insecurity. The United States, too, has been pulled off course. Donald Trump’s attacks on the media, immigrants and international governance have encouraged anti-democratic populists everywhere. Carothers has termed this the “autocratic relief syndrome.” In Hungary, Orban has said about Mr. Trump: “We have received permission from, if you like, the highest position in the world so we can now also put ourselves in first place.”

This vacuum in leadership has been happily filled by Russia and China. If today there is an ebb tide in established democracies, it is a high tide for skilled autocratic players. Vladimir Putin has been a strategic disrupter of American and European elections, has become the dominant external influence in the Middle East since the retreat of the U.S., and continues to put pressure on Ukraine through his annexation of Crimea. Through the Belt and Road initiative, China has sponsored the greatest investment pool for infrastructure since the Marshall Plan and unlike that earlier American initiative, human rights and democracy are not high on the Chinese agenda. It is telling in the current Venezuela crisis that dozens of countries in the European Union, Canada, the Unit-

ed States and most of Latin America have endorsed Venezuelan opposition leader Juan Guaido as interim president, while it is Russia, China, Cuba, Iran, and Turkey that are keeping Nicolas Maduro in place despite his three-year economic and security war against his own people. The democratic-authoritarian divide has never been clearer.

There is now a large democratic leadership gap. Can Canada fill it? In February 2019 Canada played host to foreign ministers from the Lima group of South American nations trying to restore democracy in Venezuela. Prime Minister Justin Trudeau spoke on the phone pledging support to Guaido. This is democracy promotion on steroids.

The high profile/high politics drama of the Venezuela crisis is likely what many people have in mind when you raise the issue of democracy promotion. But such a crisis is not what most democracy promotion and human rights advocates usually do. mostly it is low-level brick-by-brick building of institutions, listening, mutual learning and a great many workshops and professional development exercises. The Standing Committee on Foreign Affairs and International Development got it right when it wrote in its 2007 report *Advancing Canada’s Role in International Support for Democratic Development*: “Democratization is a long, difficult and inherently indigenous process and that should be supported but not imported from abroad.” That is why the 2009 Advisory Panel on the Creation of a Canadian Democracy Promotion Agency set up by the Harper government to implement the recommendations of the 2007 report ar-

gued for a stand-alone agency that would quietly sponsor the long and often drawn-out work of building institutions. The advisory panel knew that local knowledge cannot be acquired quickly or on the cheap; therefore, it recommended field offices (annual cost CAD\$3-5 million each) in the countries of highest priority (full disclosure, I chaired the panel). The 2009 recommendations calling for a new agency with a 50 million-dollar budget, however, were caught up in the fiscal crisis of 2008-09 and the Harper government eventually declined to move on its own idea.

A second reason to create a stand-alone agency reporting to parliament but not part of the government is that it can be a more flexible instrument than relying solely on local ambassadors and dedicated Global Affairs officers in Ottawa. Democracy promotion work often requires regular meetings with opposition figures or members of civil society critical of the existing regime, tasks difficult for an accredited ambassador. Time on task is one argument for a dedicated agency but effectiveness is another. A local representative of a democracy promotion agency has freedom to meet with whomever can contribute to democracy-building without embarrassing our accredited ambassador or high commissioner or the government of Canada. Why deny ourselves such a supple instrument, especially as it is almost universally acknowledged in the international community that Canada has a wealth of talent and skilled practitioners in areas like federalism, diversity, gender equity, party management and constitutional protection of human rights?

Democracy and human rights promotion abroad also enjoys multi-party support in Canada and this consensus is important in a world where partisanship grows more pervasive. Both the Liberal and Conservative parties have in the recent past committed to establishing such an agency in their election platforms. The New Democratic Party was a strong proponent of Rights and Democracy, the defunct government-funded agency. And in



Protesters in Caracas face government troops near the Francisco Fajardo Highway, June 19, 2017. Wikimedia photo

the field, former MPs and supporters of all parties have made common cause in trying to use their expertise to help emerging democracies be born, survive and grow. Whatever divides us in Canadian politics at home dissolves abroad when you are working on the fundamentals of free expression, gender equity, human rights and good governance. In a partisan age, multi-partisan support for a good idea is no small thing and should be acted upon readily.

Never has the time been better for Canada to step up and make democracy and human rights promotion a central priority of our foreign policy. The House of Commons Standing Committee on Foreign Affairs and International Development, in 2019, has again held hearings on the need for human rights and democracy pro-

motion abroad. An all-party Democracy Caucus has been created in the 42nd Parliament. All parties have, at one time or another, made democratic and human rights promotion central to their election platforms: The Harper Conservatives in the 2008 election, and the Liberal party in the 2011 campaign are cases in point. As our parties robustly contend in our own democratic election in 2019 what better legacy could there be from that contest than a multi-party commitment to do our best to help others on our planet enjoy the benefits of liberty? **P**

Contributing writer Thomas S. Axworthy is a former chair of the Asia Pacific Foundation of Canada, and is chair of public policy at Massey College, University of Toronto. From 1981-84, he served as principal secretary to Prime Minister Pierre Trudeau.



Column / Don Newman

Climate Change: How it Could Impact Post-Election Power in Ottawa

With public opinion polls showing the Liberals and Conservatives in a virtual dead heat five months before the federal election, it is not too early to speculate what kind of Parliament Canadians will elect if the current preferences hold until voting day, October 21st.

The simple conclusion is that no party will have enough seats for a majority government. The other simple conclusion is that either the Liberals or the Conservatives will finish with the most seats. And, neither the New Democrats nor the Greens have any chance of topping the electoral standings.

But that doesn't mean that either one, or even both of them, may not play a role of great significance after the next election. They may in fact decide whether the Liberals or the Conservatives govern, and for how long they retain power. Even if the Liberals come second, if the NDP and enough Greens elected agree to support a Liberal government, Justin Trudeau could stay as prime minister.

If you go back far enough, that is what happened in 1925. The election that year ultimately set off a constitutional crisis, but that came a year later with a subsequent election. In the 1925 election, also held in October, the Liberals, who had been in power for four years, were reduced to ninety-nine seats. The Conservatives, by any traditional measure, had won, with a total of one hundred and sixteen. The Progressive Party, a western protest party had twenty-four.

But with no one having a majority, the Progressives decided to support the Liberals, even though they had seventeen fewer seats than the Conservatives. The Liberals managed to govern

for nine months before giving up office briefly in a confrontation with the Governor-General, and then winning back power in a subsequent election.

The issue that kept the Liberals in power in 1925 was high tariffs. The Conservatives were for them, the Liberals less so and the Progressives not at all. In 2019, the issues that could keep them in office are the climate change files of global warming, carbon taxes and pipeline construction. In the current political environment, the Conservatives have isolated themselves on opposing carbon taxes, building multiple pipelines and downplaying global warming.

In Ottawa, federal Conservatives have labeled the Liberals' carbon tax a "tax grab" and say they will cancel it if elected. They have also said they will repeal legislation changing the environmental review process for energy projects, cancel a ban on tankers off the northern coast of British Columbia and speed up the stalled construction of the twinning of the Trans Mountain pipeline.

All of these are major requests of the oil and gas industry, which of course is headquartered in Alberta. That is the province that recently elected a Conservative provincial government, which cancelled the previous NDP government's carbon tax, and is joining with Conservative governments in Ontario and Saskatchewan to challenge and replace the Trudeau government's federal carbon tax.

Added to provincial Conservative efforts, the *Globe and Mail* reported that federal Conservative leader Andrew Scheer met with oil industry executives who've formed a pro-oil advocacy organization called the Modern

Miracle Network. The meeting was reportedly called to plan strategies for defeating the Liberal government in October.

The Liberals have tried to straddle both the energy and environment issues, spending more than \$4 billion of taxpayers' money to buy the Trans Mountain pipeline when its private backers gave up hope of it being built. But they are far more environmentally focused than the Conservatives. And the New Democrats are more green than the Liberals, and the Greens of course the most environmentally concerned of all.

So, it's not far-fetched to contemplate a Liberal, NDP and Green arrangement after the next election. Maybe an informal arrangement, maybe an agreement to vote together on confidence votes like the NDP and the Greens have now in British Columbia, or maybe even a co-alition government if the seats in the Commons are more evenly distributed, like the one in Great Britain after the 2010 election in that country.

The glue holding such an ungainly arrangement together would be concern for what people worried about a warming globe, rising tides, forest fires and other disasters call the "challenge of this generation."

The idea and the effect of such an arrangement would be to block further pipeline development and wind down the oil sands. And with the Conservatives now so openly the voice of the oil patch, it could happen. It could be 1925 all over again. **P**

Don Newman is Senior Counsel at Navigator Limited and Ensign Canada, and a lifetime member of the Canadian Parliamentary Press Gallery.

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Before
the Bell

THE REVIEW

MAY-JUNE 2019

VOL 2 ISSUE 3

International Women's Day
& Women Deliver 2019

Transportation in Canada

Foreign Direct Investment in Canada

Chasing Answers

TIME TO DELIVER





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FROM THE EDITOR

Time to Deliver. Yes, it is. From June 3 to 6, the world's largest conference on gender equality and the health, rights and wellbeing of girls and women is taking place in Vancouver. And we should be proud that Women Deliver chose Canada to host this prestigious conference. We have a lot to be proud of but we can do more. Why wouldn't we want to live in a country that can enjoy the contributions of everyone equally? And so this is where we begin with The Review.

Dale Smith recaps a session hosted by Susan Delacourt on International Women's Day. Sixth Estate convened a panel from business, politics, and civil society to discuss this year's theme of #BalanceForBetter, and how they and their organizations are working to close the gaps that exist in their fields.

Later, Derek Nighbor, president and CEO of the Forest Products Association of Canada, talks about the initiatives his member companies are taking to encourage more women to work and grow in the sector. You can read his opinion in Canada's Forest Sector Branches Out.

And the forestry sector relies heavily on intermodal transportation systems to get their product to market. So this segues nicely into Dale Smith's recap of a Before

the Bell edition on Canada's Transportation Infrastructure: a backbone to the economy.

Shifting the discussion to foreign direct investment (FDI) in Canada, Before the Bell looked at what we are doing collectively to grow the economy through FDI and what obstacles exist. The timely session occurred one year after the creation of Invest in Canada and featured a discussion with CEO Ian McKay. Again, you can read a recap in Dale Smith's piece called Temperature Check: Canada's Investment Climate.

Finally, we are introducing a new feature called Chasing Answers. During each edition of Before the Bell we get far more questions than time permits to answer on the show. So, beginning with our edition on foreign direct investment, we are pleased to introduce Chasing Answers on Foreign Direct Investment. We went back to Ian McKay, CEO of Invest in Canada and Goldy Hyder, president and CEO of the Business Council of Canada, and asked them to respond to the top five audience questions we didn't have time for during the session. We're pleased to include their responses in a Q&A format.

So from gender equality, to building our economy and making Canada a model for other nations to follow, we need continued actionable outcomes. It's time to deliver.



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International Women's Day

BY DALE SMITH
Sixth Estate

To mark International Women's Day, Before the Bell brought together a panel of women from business, politics, and civil society to discuss this year's theme of #BalanceforBetter, and how they and their organizations are working to close the gender gaps that exist in their fields.

A recent report from the Canadian Pharmacists Association shows that within their field, in which 60 to 70 percent of pharmacists are women, they only make up thirty percent of owners, board members, and corporate leaders.

Joelle Walker, director of public affairs for the association, said that she hopes the report generates a conversation among members, and the association is hoping to spark change in its ranks leading up to a summit in June.

"We're going to be hosting a number of different events over the next few months to get people to better understand how they can build up their careers within the pharmacy sector, whether that's in associations or corporate structures, and to encourage a conversation around change, and how the structures around them need to change," said Walker.

Host Susan Delacourt led off the discussion with Oksana Kishchuk, analyst with Abacus

Data, who conducted a poll about millennials' perceptions about the wage gap within their own households, and how men and women felt their salaries compared to that of their partner. The result found 39 per cent of men feeling they make more than their partners, compared to 19 per cent of women.

On another question about household chores such as cooking and cleaning among heterosexual millennial couples, women were much more likely to respond that they are responsible for chores than men. The same survey found that men were more likely to be responsible for finances and being the main income earner.

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The survey also found that 31 percent of men expressed a desire for political involvement as opposed to 19 percent of women, with women citing family obligations, lack of knowledge, and lack of skills as barriers they face.

“Things are getting better,” said Kishchuk. “We also asked if people think a balance of responsibilities is a good thing, and whether or not men should be taking on more household responsibilities and women should be taking on more of those financial roles, and a clear majority of millennials felt balance was a good thing.”

Aylin Lusi, vice-president of public affairs for UPS Canada, said that in her experience, small businesses required more of a bespoke service for getting export-ready. Given that only sixteen percent of small businesses in Canada are women-owned, and only eight percent of those businesses are engaged in exports, Lusi said that there is room for improvement.

“Internationally, we are engaged with an organization called the International Trade Centre,” said Lusi. “They have an initiative called SheTrades, which is looking to empower three million women, engaging them in international supply chains by 2021. We’ve partnered with them and launched the Women’s Exporters Program, which engages with women-owned businesses in countries around the world, helping them become export-ready.”

Lusi said that her most practical advice is to research, and not underestimate the amount of time and energy in preparing to export.

Mairead Lavery, president and CEO of Export Development Canada, said that as a woman leading a 75-year-old organization, she does bring a different style and set of skills to the job. For women entrepreneurs, there are specific challenges around access to capital and financing, and more of them will finance their businesses with personal debt such as credit cards and mortgages.

“Often they are asked the question ‘is your husband willing to support you with this?’ or ‘do you have a guarantor that’s a male?’,” said Lavery. “That’s one of the things that we’re very conscious about – eliminating any biases. We have appointed a Women in Business lead at EDC, so that if there are any biases, she’s there to weed them out.”

Lavery added that there is also a myth that exporting is only about items, but in many cases, it’s also about services.

Julie Savard-Shaw, director of partnerships



with CanWaCH, the Canadian Partnership for Women and Children’s Health, said that providing childcare is one of the most important ways to help encourage women to take on leadership roles. She added that she also wants more training on sexual assault and harassment awareness as well as bias training addressing inherent biases in the wage gap that begin with paying children differently for things like babysitting and mowing the lawn.

“What young people may see has a direct impact on the careers that they choose,” said Savard-Shaw. “If you ask a girl who’s nine what’s her dream job, that will be completely different from if you ask her when she’s eleven.”

Karen McCrimmon, MP for Kanata–Car-

leton (Ont.) and parliamentary secretary to the minister of public safety and emergency preparedness, was also the first woman to command a squadron in the Royal Canadian Air Force. McCrimmon said that in 31 years in the military, she was never insulted or yelled at as much as she has been as a woman in the House of Commons.

“In places around the world, when we had women soldiers in places like Afghanistan, we really stood out and people would follow us around because they had never seen a woman in uniform,” said McCrimmon. “We can be that beacon of hope on so many issues. Change doesn’t happen overnight, but we can set good examples.”

Canada's Transportation Infrastructure: A Backbone to the Economy

BY DALE SMITH
Sixth Estate

From Ottawa's LRT project to Canada's infrastructure bank to China's controversial One Belt One Road project, infrastructure as a policy issue is everywhere these days. Despite this, only eight percent of Canadians are paying close attention to federal investment in infrastructure and only 48 per cent are following at all according to an Abacus Data poll. Before the Bell heard from experts and stakeholders about the issues facing this critical backbone to the economy.

Ihor Korbabicz, executive director of Abacus, said that despite the fact that most people aren't paying close attention, 49 percent of Canadians nevertheless want more spending on transport infrastructure. Most Canadians are generally satisfied with the quality of service, but the gaps emerge between rural and urban Canadians.

During the pulse segment of the event, hosted by David Akin, Massimo Bergamini, president and CEO of the National Airlines Council of Canada, said that (until the Transportation 2030 program unveiled by Transportation Minister Marc Garneau in December) there hasn't been a national transportation strategy in Canada.

"We need to focus on small, incremental steps with clear accountability, clear plans, and clear funding," said Bergamini. "We need better policy integration."

Carole Saab, executive director of policy and public affairs with the Federation of Canadian Municipalities, said that there needs to be better coordination between different levels of government, especially because smaller municipalities often struggle with federally-designed programs.



"If the City of Toronto is struggling to engage effectively with other orders of government in a conversation that is long-term and forward planning, that's infinitely harder for a smaller community," said Saab.

Aylin Lusi, vice president of public affairs for UPS Canada, said that the shift that her industry has seen in recent years has been from the business-to-business model to business-to-consumer, which creates different stresses on infrastructure, such as more vehicles travelling to individual residences.

"The pain point that the movement of goods and the movement of people has in common is congestion," said Lusi. "That impacts everybody on a day-to-day basis. There are things that industry is trying to do to alleviate those problems."

During the policy segment, hosted by Sixth Estate's Andrew Beattie, Derek Nighbor, CEO of the Forest Products Association of Canada, said that forest products are already using ten percent of rail capacity in the country, twenty-five percent of what gets transported over roads, and twenty-five percent of what gets shipped out of Canadian ports.

"We need an integrated strategy, because a segmented strategy won't work for us," said Nighbor. "The biggest challenge we're facing is congestion in the lower mainland of BC. We have a lot of stuff going to Asia. There's huge opportunity in China and throughout Asia, and as we look at the markets of tomorrow, we need that Pacific gateway responsive and working for us."

Marc Brazeau, president and CEO of the Railway Association of Canada, said that railways are currently transporting a record number of goods across the country, and that they are investing in the capacity to carry more.

"The challenge is always re-investing in the infrastructure," said Brazeau. "In 2019, we're forecasting \$5.5 billion worth of investment back into the railways, but we have to do that with our partners. It is an integrated supply chain, so we need to make sure that we are getting that kind of commitment from our other partners, including government."

Mark Halinaty, president and CEO of Thales Canada, said that the private sector has a major role to play in technology development to improve transportation infrastructure. As an

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example, Halinaty said that 5G communications in public transit means better communicating ridership information for capacity control.

“The key areas that will unlock vast potential are in Big Data and artificial intelligence,” said Halinaty. “Today, we collect all kinds of data for things like train control, but that data can be used for much more, especially if you start combining it with data for other modes of transportation and other systems, to be able to react to public demand and what is going on in the environment.”

Hon. Judy Sgro, MP for Humber River–Black Creek, ON, and chair of the standing committee on transportation, infrastructure and communities, says that she led a task force on transit infrastructure, and that the government’s 2030 plan, including trade corridors, would help complete the integration of the country’s transportation systems.

“We need a government to stay in long enough,” said Sgro. “[We need] to have a minimum of a ten-year commitment from all three levels of government, that they stick to.”



The challenge is always re-investing in the infrastructure... In 2019, we’re forecasting

\$5.5 billion

worth of investment back into the railways, but we have to do that with our partners. It is an integrated supply chain, so we need to make sure that we are getting that kind of commitment from our other partners, including government.”

— Marc Brazeau

President and CEO of the Railway Association of Canada

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Temperature Check: Canada's Investment Climate

BY DALE SMITH
Sixth Estate

Foreign Direct Investment (FDI) can make or break a smaller economy, and for an economy like Canada's, it is a measure of international confidence and stability. While Canada's FDI took a hit from 2015-17 because of the exodus of capital from the country's oil patch, it rebounded strongly in 2018, up by 144 per cent in the first half of the year to close at \$51.3 billion over the year, the highest total in three years.

Before the Bell assembled a panel of business, academic and government stakeholders to

examine what needs to be done to keep Canada's investment climate competitive.

Ihor Korbabicz, executive director of Abacus Data, said there is a tone of pessimism among Canadians as 68 percent of those polled in a survey on their standard of living felt that the changing economy would bring more threats than opportunities. As well, 69 percent of those surveyed felt that corporations make too much profit, and 66 percent of those surveyed felt that government regulation of business is necessary to protect the public interest, even among identified Conservative voters.

During the pulse segment hosted by David Akin, Elizabeth Roscoe, senior vice-president

and national practice leader of public affairs at Hill+Knowlton Strategies, said that foreign direct investment is a net benefit for Canada, because we live in a global world and capital knows no borders.

"All countries, ourselves included, learn from technology, human resources and other innovations," said Roscoe. "To close off our economy from those advancements is not advised."

Rachel Curran, principal at Harper and Associates, said that the government is not doing enough to attract investment given the drop in recent years, and wondered if there was something about the regulatory or taxation environment that is making investors think twice.

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"It's critical that we get this right, and foreign investment is a really important piece of economic growth," said Curran. "We don't have a plan right now and the numbers are bearing that out."

Susan Hutton, partner with Stikeman Elliott LLP, said that when it comes to the Investment

Canada Act, it has become less onerous for foreign investors, with fewer and more focused restrictions.

"We're saying the right things about welcoming foreign investment and wanting to attract more, but we need to look at the underlying investment climate, and are we doing enough to help Canadians invest in Canada — not just foreigners," said Hutton.

During the policy segment, hosted by Catherine Clark, Bob Masterson, president and CEO of the Chemistry Industry Association of Canada, said that the Canadian chemical sector has not seen the same level of global investment that the Americans have, even though Canada has a lot of the fundamentals in place.

"We have all the ingredients to succeed," said Masterson. "They will benchmark Canada as their next investment, and then they sell that against other jurisdictions, and we always lose."

Masterson noted that some provinces, like Alberta, have done the heavy lifting to attract new investment in the sector.

Goldy Hyder, president and CEO of the Business Council of Canada, said that Canada can be its own worst enemy because of a sense of complacency.

"We need to change the narrative in Canada," said Hyder. "We're not immune from what's taking place globally — the anger, the frustrations that we've seen with the Yellow Vests, Brexit, and what's taking place in a very polarized America — that is at our shores now. Canada cannot afford to be a place where it's opposed to trade, opposed to immigration, and opposed to investment."

Aniket Bhushan, adjunct professor at Carleton University, said that while the data shows that the investment climate has deteriorated, the business of attracting investment into an economy is a contact sport.

"It is a very competitive market to attract investment out there, and we also do ourselves a disservice if we're looking at emerging — or emerged — economies seeking energy security, or resource security and invest in Canada," said Bhushan. "But it's also Amazon looking for a new headquarters, or a video game developer looking for skilled and relatively cheaper workers. It's also an e-commerce company looking for an AI hub. There are many layers and levers, but the question is whether there is a strategy that adequately encompasses this."

Ian McKay, CEO of Invest in Canada, noted that in 2018, FDI into Canada increased by 60 percent, reversing a ten-year trend of decline, and that within that increase, there was more global capital flowing into Canada, through more deals from more sources, into more sectors.

"Traditionally, the big-ticket items for investment into Canada were energy, mining, and advanced manufacturing," said McKay. "The new sectors that Canada is attracting — I'm talking technology writ-large, but it includes AI, cyber-security, and fintech [financial technology]. Canada has a currency which is global talent, and the world is looking at it. We're starting to win that game."

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Chasing Answers on Canada's Investment Climate

Sixth Estate Editor

Following the Before the Bell edition on Canada's Investment Climate, Sixth Estate editors asked Ian McKay (IM) president and CEO of Invest in Canada and Goldy Hyder (GH), president and CEO of the Business Council of Canada to respond to some unanswered audience questions from the show. Here are their responses.

Q. Besides from our taxation policies, on a global scale, is Canada looked at as a safe and healthy marketplace to invest in?

A. (IM) Canada's banking system, widely recognized as the soundest in the world, and

our G7 best debt-to-GDP ratio, are key factors that have led the OECD to declare that Canada has the best macro economic stability among its members. Investors who take the long view on investments view this as a key determinant when deciding where to deploy capital. Further, Canada is ranked by the OECD as having the highest educated workforce in the world, an open and aggressive immigration policy, and the only country in the world with free trade with every G7 nation.

A. (GH) Yes and no. Yes compared to many others but no to those we most compete with like (the) US, Europe. (The) issue is not taxes as much as it is regulations. We have dropped in the World Economic Forum rankings for ease

of doing business from 4th globally in 2006 to 22nd today.

Q. Global Skills Strategy – celebrated by local + FDI companies has created a strong foundation for biz growth. If you were the PM, what new programs would you introduce?

A. (IM) Canada should continue to focus on generating world class research to meet 21st century needs, producing and recruiting the best minds here and around the world, and building upon the world's most aggressive and open trade and investment network.

A. (GH) We like what came out of the budget, it is a good start. We can assess as we

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Chasing Answers on Canada's Investment Climate

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go on what more might be necessary. At some point we do need to give our education and post secondary a hard look to modernize curriculum.

Q. Canada's green regulatory regime: impediment or catalyst for FDI?

A. (IM) Forward thinking, aggressive policy on the green economy, on pricing pollution, on building codes at the provincial and municipal level are keys to driving innovation and attracting capital to Canada. It is no accident that Canada has 16 of the top 100 clean technology



companies in the world, and that British Columbia – which has had a price on pollution since 2008 – has led the nation's economy for much of the past decade.

A. (GH) It is an asset if it is properly communicated.

Q. What is driving the tech sector in Canada? It seems there is a spike in activity?

A. (IM) For the first time ever, since 2017 the cities of Toronto and Vancouver have attracted more global tech talent than San Francisco and Seattle. This is a significant shift. The reasons are plentiful, but sound public policy over decades on creating world class research institutions in Canada, an immigration framework that recognizes the need for global talent, and a quality of life that is conducive to growing tech ecosystems all over the country have all had a large part to play.

A. (GH) The superclusters have helped as has business investment in innovation, business, academia and government working together is good.

Q. If you were in front of a company, how would you pitch Canada as a place to invest?

A. (IM) In a world increasingly consumed by chaos, disruption and protectionism, Canada is an oasis of stability for global business. By investing in Canada you can increase profits, reduce risk and grow your business with ease. The lowest marginal effective tax rates in the G7, an unmatched global trade footprint that provides access to 1.6 billion consumers, and an ever expanding pool of local and global talent to grow your business – these are all reasons to choose Canada first.

A. (GH) Canada is a reliable platform, rule of law, a place where one can establish a hub and do business with North America, Europe and CPTPP countries where we currently enjoy early mover advantage over (the) U.S.





Derek Nighbor

PRESIDENT & CEO FOREST
PRODUCTS ASSOCIATION
OF CANADA

Workforce Diversity— Canada's Forest Sector Branches Out

The transformation that is happening in Canada's forest products sector is not limited to the new technologies we see in our forests and at our mills, nor in the new global markets we are reaching. It is also reflected in the changing face of our workforce.

The iconic lumberjack, so fondly associated with the tradition of Canadian forestry is, in fact, something of yesteryear. Today, our sector sports almost as many lab coats as we do safety vests. We also see an increasing number of women now working in the woods and in

mills across the country. That said, we have much more work to do.

Only 17% of workers in our sector are women. While that number is on the rise, we see a huge opportunity to promote careers in the forest sector as an option for both men and women who might not yet be thinking about us. Diverse and inclusive workforces are demonstrably positive for all business sectors, and FPAC could not be happier to see a number of gender diversity opportunities getting national profile.

In November of last year, along with the Canadian Institute of Forestry, the federal government announced the Gender Equality in Forestry National Action Plan, a Canada-wide effort to promote opportunities for women in forestry. The intent is to help the forest sector identify and address the barriers and gaps that stand in our way to maximizing the participation of women in our industry.

To make this happen, it is also important to ensure that our potential workers of tomorrow are aware of the role models and jobs that are out there. That's why, in conjunction with the United Nations' International Day of Women and Girls in Science on February 11, Forest Products Association of Canada (FPAC) launched the #TakeYour-Place campaign to encourage women to think about careers in the forest products sector. The

campaign builds on other targeted efforts across Canada like the Alberta Forest Product Association's #WomenInForestry campaign.

Today, Canada's forest products sector directly employs over 230,000 people and thousands more are going to be needed in the next 10 years to fill an array of good jobs in engineering, skilled trades, mill and woodlands operations, and administration. There is room for everyone in our sector, and tapping into a diverse talent pool—that goes well beyond gender—is going to be key to our future success. We see good paying jobs open to men and women, millennials and older workers, as well as real potential to attract more workers from Indigenous communities and in the growing cohorts of new Canadians.

FPAC takes pride in being able to see the forest for the trees. We know that embracing diversity and inclusion will be key to securing the future—not only for our sector—but for the hundreds of forestry communities that depend on us. Learn more about the jobs that will need to be filled in our sector today and in the years ahead at our interactive The Greenest Workforce website: www.thegreenestworkforce.ca/jobs/index.php/en/labour-market-information/forecast/

Derek Nighbor is president and CEO of the Forest Product Association of Canada.

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Notre destination commune : un avenir durable. En choisissant le train, vous contribuez à bâtir un Canada plus vert.

La voie économique

En avançant ensemble, on donne un coup de pouce au portefeuille des Canadiens.

La voie collective

En connectant plus de 400 communautés au Canada, on permet à près de 4,8 millions de voyageurs de se rapprocher des personnes et des endroits qu'ils aiment.

Liaison	Nombre de départs par jour	Distance	Temps productif en train	Temps non productif en voiture*	Coût du voyage en voiture**	Coût du voyage en train (à partir de seulement)	Économies pour le contribuable (voyage en train)***
Ottawa → Toronto	Jusqu'à 20	450 km	4 h 25 min	4 h 46 min	487 \$	49 \$	438 \$
Ottawa → Montréal	Jusqu'à 12	198 km	1 h 50 min	2 h 21 min	230 \$	37 \$	193 \$
Ottawa → Québec	Jusqu'à 8	482 km	5 h 39 min	4 h 47 min	510 \$	49 \$	461 \$
Toronto → Montréal	Jusqu'à 13	541 km	4 h 49 min	5 h 39 min	583 \$	49 \$	534 \$

Les employés du gouvernement du Canada sont admissibles à un rabais de 10 % sur leurs voyages personnels réservés auprès de VIA Rail. Les employés du gouvernement du Canada peuvent profiter de tarifs spéciaux pour leurs voyages d'affaires réservés par l'entremise des Services HRG de voyage partagés. Le rabais ne s'applique ni aux tarifs Évasion ni à la classe Prestige.

* Donnée issue d'une application de voyage en date du 22 mars 2019, à 17 h.

** Le coût du voyage en voiture est calculé selon la formule suivante : coût en \$ du voyage en voiture (taux de 0,58\$/km établi par le Conseil du trésor pour l'Ontario pour une voiture conduite par un employé du gouvernement X distance parcourue) + frais en \$ d'employé gouvernemental (taux horaire moyen d'un employé gouvernemental de 48\$/h selon un salaire de 100 000\$ par année, y compris les avantages sociaux X durée du voyage) = coût total en \$ pour le contribuable.

*** L'économie pour le contribuable associée aux voyages en train est calculée selon la formule suivante : coût en \$ du voyage en voiture – coût en \$ du voyage en train = économies en \$ pour le contribuable.

Les tarifs et les conditions peuvent changer sans préavis. ^{MC} Marque de commerce propriété de VIA Rail Canada inc.

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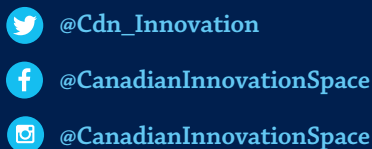
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