

# Q&A: A Conversation With Navdeep Bains



“We want to demonstrate that we’re a willing partner,” says Innovation Minister Navdeep Bains in his Q&A with *Policy* Editor L. Ian MacDonald. *Policy* photo

*Innovation and Economic Development Minister Navdeep Bains met with Policy Editor L. Ian MacDonald for a wide-ranging interview on the challenges and opportunities of innovation and Canadian comparative advantage, including the advantage of Canadian immigration policies in recruiting the best and the brightest to study and start-up new business firms in Canada.*

**Policy:** I wanted to begin with innovation and the opportunities in immigration. I find it quite striking. First of all, is there an opportunity for Canada, given President Trump’s “extreme vetting” immigration policy, to gain comparative advantage over the US as a destination for innovators and talented foreign students?

**Navdeep Bains:** This is a longstanding advantage that we’ve had globally. We believe in having an open mindset when it comes to immigra-

tion, recognizing that our academic institutions have a unique opportunity to attract some of the best and brightest. We don’t have a monopoly on good ideas. If you look at our recent global skills strategy, which is about individuals that are high in demand with specialized skills who can come to Canada within a matter of two weeks, it really speaks to that concept of being open—open to people, open to ideas.

When we say diversity is important,

it’s really about diversity of thought and perspectives. When I’m speaking to presidents of universities and colleges, they’re noticing more interest in individuals wanting to come to Canada to study. I’m seeing that same level of interest from businesses as well. This is something that we were very alive to even before the US elections. This is an area where I wholeheartedly believe we have a value proposition that differentiates us. And it’s now all about making sure that we implement our promises around immigration.

**Policy:** Dominic Barton in his article for this issue of *Policy* writes, “Half of all the billion-dollar start-ups in the US were founded by immigrants. Canada’s reputation for openness and diversity give it a comparative advantage in the global competition for talent.” I take it you agree with that.

**Navdeep Bains:** Absolutely. There’s no doubt that diversity and talent are a source of strength for us. I think of my own father. When he came here from India, literally with a few dollars in his pocket, he sacrificed a lot. He came here with a desire to succeed. And so when people talk about immigrants succeeding in Canada, or in the US or other parts of the world, it’s no surprise. They give up a lot. I think that drives them to take risks, to be entrepreneurial. You know, they want to control their own destiny a bit more. I think that’s why being an entrepreneur makes sense for them.

**Policy:** Let me give you some examples. Steve Jobs, the founder of Apple and famously the son of a Syrian immigrant, who wouldn’t be admitted to the US under Trump’s immigration policy. Sergey Brin, co-founder of Google, whose CEO is from India—Sundar Pichai. A Canadian, Garrett

Camp, is the co-founder of Uber. Satya Nadella is the CEO of Microsoft. Jerry Yang, the co-founder of Yahoo. Bob Miner, an Iranian, is the co-founder of Oracle. Pierre Omidyar of eBay. In Canada, Shopify founder Toby Lutke is a German immigrant.

**Navdeep Bains:** That's right. I was recently talking to Toby during a dinner and we talked about his personal success. What's really interesting to note is not only their individual success, the enormous amount of wealth they created for themselves and for the jurisdiction that they operate in, the numerous employment opportunities. It's also the fact that they genuinely want to give back. They also want to make the world a better place. Often they become very global in their perspective, and they do a lot when it comes to philanthropy and mentoring.

Toby's a great example of that. He pushed very aggressively for initiatives around computer coding for lifelong learning. And it's not simply about what it means for his business. He sees where society is going. He sees the role of technology. He's looking at issues of diversity, gender equality, focusing on encouraging girls to take science, technology, engineering and math.

These entrepreneurs' contributions go beyond their own personal success. They give back a lot to society.

**Policy:** Your thoughts on the three main recommendations of the Advisory Council on Economic Growth. Number one: invest heavily in skills training.

**Navdeep Bains:** That was a key component of our budget. We focused on innovation and skills. When we were consulting innovation leaders, businesses and academic institutions, we asked them: What is the number one issue? And it always came down to people, skills and talent. In this rapidly changing economy, there's obviously a lot of anxiety. People are worried about their jobs, their own personal opportunities and the hopes and aspirations they have for their children or grandchildren. One of the areas where we could help Canadians deal with those anxieties is to provide

*“When we say diversity is important, it's really about diversity of thought and perspectives. When I'm speaking to presidents of universities and colleges, they're noticing more interest in individuals wanting to come to Canada to study. I'm seeing that same level of interest from businesses as well.”*

opportunities for everybody to upgrade their skills.

Our focus is on lifelong learning. Teaching kids computer coding. Work integrated learning. More internships. More co-ops. This is an area that would provide meaningful opportunities to upgrade skill sets and to provide employment opportunities, not only for our youth, but also for adults who have been in the workplace for 10 to 15 years and want to go back to school to upgrade their skills.

*“People are worried about their jobs, their own personal opportunities and the hopes and aspirations they have for their children or grandchildren. One of the areas where we could help Canadians deal with those anxieties is to provide opportunities for everybody to upgrade their skills.”*

**Policy:** And then, number two, attract the world's top talent. That's pretty obvious.

**Navdeep Bains:** It is. But at the same time, we need to do it in a very thoughtful way. We want to be led by the needs of the marketplace. This goes beyond attracting more engineers or technicians or individuals with certain skill sets. It could be recruiting a CEO or a Chief Technology Officer who can help a company scale up and grow. We want Canadian companies to identify

what their needs are, where the gaps are, and we want to deal with it in a much more timely manner.

We made a commitment to launch the global skills strategy on June 12th—so not next year or the following year, but in a matter of weeks. And the processing time for visas will be a matter of ten working days or two weeks. If you're a company and you need to bring somebody and they need to get their visa processed—currently it can take potentially months. For companies that quickly need someone to be able to make that next investment or find the next solution or to deal with an issue, they have that nimbleness and flexibility.

This program will make Canada an even more attractive place for top talent. It demonstrates that we have a process that will be very sensitive to the needs of small businesses that want to grow and scale up in Canada.

**Policy:** And number three, create innovation marketplaces.

**Navdeep Bains:** We deal with this in the budget through the lens of the superclusters. We're looking at how we can accelerate commercialization—bring ideas to the market more rapidly. Canada is doing really well when it comes to investing in research. Relative to our G7 peers, we're really strong. Where we're challenged is when we translate those ideas into solutions that can be commercialized, that can create jobs, generate revenue for companies. That's an area that we want to focus on. We want to accelerate commercialization. The superclusters bring all the key elements together: academia, where the ideas are generated; anchor firms that have an understanding of how to grow and scale up; connecting them with smaller firms; connecting

them with civil society, different levels of government; and finding common platforms that can allow them to compete globally.

We're really excited now to go out there and engage industry, academia in a very competitive process that will let the best ideas come to us. Our objective is not to prescribe these solutions. We don't want to prescribe a path forward. We want to demonstrate that we're a willing partner. We're willing to put money in so we can leverage more money, primarily from the private sector.

**“ We're really excited now to go out there and engage industry, academia in a very competitive process that will let the best ideas come to us. Our objective is not to prescribe these solutions. We don't want to prescribe a path forward. We want to demonstrate that we're a willing partner. ”**

And quite frankly, I think they understand the proposition. They understand how this would benefit them. And we think this model has a lot of potential. It's really about focusing on three to five areas. That also would increase the level of competition. We want the best ideas to come forward.

**Policy:** The budget says that innovation begins with smart, creative, and skilled people, and cites Canada being positioned for leadership. For example, some bullet points: number one educated workforce in the OECD; number one in the G7 for business cost competitiveness; number two in the G7 for openness to trade and investment; number three on the global entrepreneurship index; and, second-best place in the world and best country in the world to do business, and the best banking system in the world in the WEF rankings nine years in a row.

But those are all great reasons to innovate in Canada.

So the question is where do we need to raise our game. For example, while the government and universities are leaders in R&D, private sector ranks 24th in R&D and as a percentage of GDP, and 22nd overall in innovation.

**Navdeep Bains:** Correct.

**Policy:** So what do we need to do about that?

**Navdeep Bains:** There are a few key problems that we tried to address in the innovation and skills budget. There are certain gaps that were identified when we went out there and engaged industry, academia, civil society. Access to people and talent were key issues. And access to capital, particularly in clean tech.

We brought forward measures to deal with that: the Venture Capital Catalyst Initiative, which will be managed by the Business Development Bank of Canada. The idea behind this is: How can we continue to strengthen our venture capital ecosystem, which has done remarkably well over the past few years? Last year, \$3.2 billion in VC funding was raised in Canada. That's an all-time high. So how do we continue to build momentum? How do we improve the access that Canadian companies have to working capital and growth capital and patient capital?

The other challenge we're trying to solve here is how do we create opportunities for our companies to be export oriented? One of the things that I'm very proud of is the Canadian Free Trade Agreement. The whole objective there is to allow companies to have access to more customers, deal with less red tape and position themselves well if they choose to go global. We want to have not only strong Canadian brands, but also global brands.

How do we use government procurement to support the growth of Canadian companies? We want to identify companies that have good ideas. And we're going to have a special carve-out in the federal government's procurement budget for those companies to validate their solutions

and ideas. When these companies go abroad and these companies are asked, "Do you do business with the Government of Canada?" They can say: "Yes." And that allows them to develop additional business opportunities internationally.

Even though we have a very well-educated workforce, even though we're ranked as a strong place to do business, we can still do better in developing and attracting talent. We can do better in making sure there's more capital available. And we need to do a better job of creating more market access.

**Policy:** Do we need to do a better job of tracking results of government investments? For example, the Institute for Fiscal Studies and Democracy at University of Ottawa put out a report in March, as you know, that the government has funded \$22.6 billion for 147 skills and innovation programs with little understanding or analysis of the performance or value for money. Do you have some thoughts on that?

**Navdeep Bains:** Return on investment is really important for taxpayers—making sure that when we design programs, they achieve the desired outcomes. Economic growth, more jobs, more R&D—those are all very important targets. We have proposed a path forward called Innovation Canada. And the idea is two-fold. One is to coordinate and streamline our programs. And the other is to evaluate the effectiveness of these programs. And both initiatives will be housed centrally through Innovation Canada, which will allow better outcomes for Canadians and Canadian companies.

**Policy:** What about the role of universities in all of this? Apparently about half of our students and millennials want to have their own start up—their own start-ups and businesses. Are the universities going to be able to give them the tools and the knowledge base that they need to do that?

**Navdeep Bains:** If you look at academic institutions, they are promoting a lot of multi-collaborative efforts. They're bringing in law students to

collaborate with business students, with science students. These efforts equip these individuals with multiple skill sets. Academic institutions are also beginning to recognize the merits of business accelerators and incubators. The Digital Media Zone at Ryerson University, where I taught, is an example of that. It has created an environment for businesses and individuals with ideas. Like you said, young millennials want to start up their own company, make the world a better place. It's not always about making money. It's also about innovative solutions that have a positive impact on people's lives.

More and more, academic institutions provide mentoring services. They provide legal advice. They even provide opportunities for companies to get financing. So I think academic institutions are beginning to appreciate the role that they play. That's really what we're trying to accomplish through the supercluster initiative. It's to accelerate that commercial opportunity and to make sure that our industries and our academic institutions work really closely together to help facilitate that process.

**Policy:** And in terms of education, how does Ottawa partner with the—the provinces on what is, as we all know, under Section 92 of the Constitution, an exclusive provincial jurisdiction? The Canada Chairs were a good example of brain gains for Canada. What are your thoughts on that, working with the provinces?

**Navdeep Bains:** We've demonstrated that we can work with the provinces. We did so with the pan-Canadian framework on environment. We did so with the Canada Pension Plan. We demonstrated that with the Canadian Free Trade Agreement, which was signed by all the provinces and territories. Our government has a track record of demonstrating that we can work with the provinces and territories.

When it comes to education, the computing coding initiative for school-aged kids that was in Budget 2017 is a great example of how we can use not-for-profit and other organizations for this initiative. And the different prov-



"Our focus is on lifelong learning," says Navdeep Bains on the role of education in innovation. Policy photo

inces and territories then can use that supply base. This way, we respect educational responsibilities. And at the same time, we help support the growing demand in the area of coding.

**Policy:** How do you feel about corridors of excellence, like the Toronto-Waterloo corridor? Years ago, Michael Porter, as you know, famously wrote in the *Competitive Advantage of Nations* about the diamond cluster of excellence. What do you—you know, when you travel all over the country, what are you seeing about that?

**Navdeep Bains:** Geography, population and a sense of history are key factors. Even for the Toronto-Waterloo corridor, a discussion is taking place. And it's really around leveraging all the technology and life science companies that exist. And it's the second-largest such cluster or corridor in North America outside of Silicon Valley.

**Policy:** That's quite something in itself, isn't it?

**Navdeep Bains:** That is a point of pride. When it comes to these corridors, there's a recognition that it's all about making sure that you create common spaces and collaboration to help generate new possibilities.

That notion of collaboration is key. For example, when I was in British Columbia, I met with UBC's President (Santa) Ono, who was tasked by Premier

Clark to look at what British Columbia should propose as an idea for a supercluster. In order to do that, he brought in small businesses, large businesses, all the sectors—traditional sectors, new sectors, emerging players, established players, academic institutions. When you have all these people in the room talking about how they can work together and find common areas of interest, it makes the magic happen.

In BC, they have a neat initiative: the Cascadia corridor between themselves and Washington state. They recognize that we're in a global innovation race. It's very competitive out there. We're too small of a country to compete against each other. So how do we work together? And what relationships can we leverage going forward? There's east-west. There's also north-south. And it's also cross-sector. It's no longer just about aerospace or auto or ships. Of course, those are important areas of growth that have existed and will continue to demonstrate a lot of growth. But artificial intelligence, for example, or quantum computing have the ability to really help companies in multiple sectors. Take CAE. That's an aerospace company that's in training and simulation. They're using that technology now for health-care solutions. I think that just speaks to the nimbleness and the flexibility that exists. And the openness that we need to have as policy makers in how we define clusters and sectors.

**Policy:** I want to ask you about disruptive technologies.

A study by the WEF in January, as you know, revealed that 86 per cent of US job losses between 1997 and 2007 were the result of technology-driven productivity gains, and only 14 per cent because of international trade. And in this issue of our magazine, Kevin Lynch writes: “Widespread deployment of autonomous trucks in the US could put the jobs of upwards of three million truckers at risk of technological displacement.” I wonder, do you see this kind of anxiety about disruptive technologies with people you meet—just in your riding of Mississauga-Malton?

**Navdeep Bains:** You’re absolutely right. I have Pearson International, the largest airport in the country, in my riding of Mississauga-Malton. There is a strong logistical hub around it. There are warehouses and a large transportation sector. I know many people in the trucking industry. They share these anxieties and concerns. We understand the anxieties that middle-class Canadians are facing about their own prospects, about the prospects of their kids. The role of our government is to say: “How can we help deal with those anxieties in a meaningful way?”

In our first budget, we brought in tax policies to deal with that—a tax cut for middle-class Canadians. Then we focused on the Canada Child Benefit. We used tax policy to deal with some of those anxieties. Then, we focused on immediate job opportunities through significant infrastructure investments. In this budget, we’re focusing on skills and innovation so that Canadians are ready and able to do the jobs of the future. The message is not about humans versus technology, humans versus machines. It’s about how we can make Canada a more innovative economy, where companies come here to build innovative solutions. It’s not by being the lowest-cost jurisdiction, but a jurisdiction that people come to because the best people are here, the best ideas emerge from here, the best technologies emerge from here.

I often cite the example of Germany, South Korea, Japan, where automation and technology exist in abundance, and yet they still have low levels of unemployment. What that tells me is that, if we play a leadership role in innovation and technology, if we play a leadership role in technology adoption, we’ll actually create more opportunities. And if we’re a laggard, it’ll be to our own detriment because other jurisdictions will out-compete us in the global innovation race.

“ *The message is not about humans versus technology, humans versus machines. It’s about how we can make Canada a more innovative economy, where companies come here to build innovative solutions.* ”

**Policy:** Two more quick ones. First on clean energy, renewables, and then on the CFTA. Coal is not coming back. You probably saw the story the other day about the Kentucky coal mining museum that switched from coal to solar power? And in the US there are more jobs in solar—210,000—than there are in coal—190,000, and—oil and gas extraction—180,000. And solar is forecast to employ 420,000 people in the US, and wind 380,000 by 2020, where—and coal costs \$140 per megawatt-hour to operate, solar costs \$80, and wind \$60. It’s pretty obvious where the future lies in energy in growth and jobs. So what are the opportunities in clean energy and renewables?

**Navdeep Bains:** There’s a lot of potential in clean tech. This is an area that impacts all sectors of the economy. And that is why we’ve committed \$1.4 billion in our budget to look at early-stage commercialization opportunities for clean-tech companies. We’re looking at how we can continue to finance and provide that patient capital for companies that want to make additional investments and want to grow here. And then how can

they become more export-oriented.

We sent a very clear signal to the market that clean technology is important to us because of the commitments we have made on the environment and reaching our climate-change goals. Putting a price on carbon is important, but one of the key ways of achieving it is through innovation—through clean technology.

There are 8,000 companies right now in Canada that are identified as clean-tech companies. And their growth potential is enormous.

**Policy:** Finally, on the CFTA, you’ve said this is really about “strengthening our home field advantage.”

**Navdeep Bains:** As a market of 35 million people, we don’t have the luxury of competing against each other. We need to work together. I recognize there are regional differences. But fundamentally, we believe being open to trade and being open to investment, being open to people is how we’re going to succeed in a world that’s promoting protectionism, that’s turning inward. With the Canadian Free Trade Agreement, we are strengthening our home field advantage. And we are saying loud and clear that Canada is open. This is how we are going to deal with those anxieties around the middle class, how we’re going to see more growth in the economy. Because we’ve had modest growth and we need to change that equation.

How do we create good quality jobs?

The only way we do that is by saying that yes, diversity is important and yes, it is our strength, but how do we leverage that diversity for economic benefits? If you have an idea and you want to take risk and you want your company to grow, this is the place to come. We must let the world know that we have the best regulatory environment. The best talent. The best access to financing. The best opportunities for companies to succeed globally because of both our international trade and domestic trade agreements. **P**

*Innovation and Economic Development Minister Navdeep Bains sat for this Q&A in his Ottawa office on April 13, 2017.*