



Good morning everyone!

Let me just say what a pleasure it is to join my colleagues on this panel - Heather, who is doing such outstanding work on the Science Technology and Innovation Council to promote internationalism in science and to benchmark Canada against the best; Alain, leading the CIHR in important international work, including with the Gates Foundation on its Grand Challenges in Global Health; and Chris, whose University Health Network is overseeing such exciting research, including in the areas of cancer stem cells, at the Princess Margaret Hospital - and with an outpost in Shanghai.

And, of course, all ably chaired by Dr. Gabriel, Assistant Deputy Minister for Ontario's Ministry of Research and Innovation, which is doing really creative work in bringing an evidence-based policy framework for research and innovation across government.

So it's a real honour to share this panel with them and this time with all of you.

I want to begin by congratulating Dr. Hariri and the other members the organizing committee for pulling together such a first rate Conference! Perhaps one of the most important conferences any of us will attend this year. Why?

Because its fundamental premise - that science and innovation are essential to the future of Canada, our prosperity and our foreign policy - is one that I think needs to be better understood across society.

We live in a time when science and innovation are re-shaping our world as never before. When research and discovery hold the key to issues as diverse as global health, climate change and food security.

Today, I'd like to examine how science policy can be projected internationally to address some of the fundamental global challenges - and why it is so important that we make this international agenda a priority in our national Science and Technology Strategy. My focus will not be the usual suspects - the U.S., the E.U. or Japan - but on the emerging and developing world.

You know it's been almost fifty years since Lester Pearson won a Nobel Peace Prize for his role in resolving the Suez crisis. Pearson's proposal - the creation of peace keeping forces wearing the blue helmets of the United Nations - revolutionized international relations, revitalized the U.N. and cemented Canada's reputation in global affairs. It was a time when Canada's foreign

policy mattered. To us. And to the world.

I believe it's time for Canadian foreign policy to matter again. It's time to propose a new vision, one that will contribute to building a better, safer world. Just as this country formulated a new way to address global conflict through peacekeeping, today we have the opportunity to address global challenges through science. And, in the process, create a compelling new brand for our foreign policy.

Nor is this simply a humanitarian exercise, important as that is. It's also a commercial exercise that will benefit Canadians.

So what would our brand be? That Canada - and Canadian scientists - help solve global challenges. We do so both directly and by fostering innovation in developing countries. This would be a unique niche for our country, one in which we lead the way and inspire others to follow.

Think of it as expanding beyond blue helmets to white lab coats. Or, as Francis Collins recently described global health, "the chance to be more of a doctor to the world than a soldier to the world."

Solutions to global health, food security, energy and climate change all require advances in science and technology. We live in a world where 10 million children die before their 5th birthday, more than a billion people go hungry every day, extreme weather events are devastating communities.

Can science help address these global challenges? Absolutely! Just look at malaria - a disease that kills one million children in Africa every year and for which there is currently no vaccine. Today? We have three malaria vaccine candidates in the pipeline. Think of what a successful vaccine for malaria would mean to the world!

And HIV/AIDS. Just a month ago, we had tantalizing results in the Thai Prime Boost Trial - the first indication that a vaccine for HIV might work.

Staple crops like cassava, sorghum, rice and bananas that are loaded with micronutrients - iron, vitamin A and zinc - all critical to human health but so often missing from the diet of the poor.

And we are well on the way to developing a drought tolerant maize for Africa, so important in a year when drought has ravaged East Africa.

So science is delivering results and there are tremendous opportunities to make a difference. The point I would make today is that those opportunities hold the key not only to the progress of developing countries, but to our own prosperity here in Canada.

The fact is that with a relatively small domestic market and an over-reliance on the U.S., largely

built on a weaker dollar, we simply have to be more outward looking. And emerging economies, like India, China and Brazil, represent the fastest growing markets for Canadian life sciences technologies, knowledge and products. So the potential for Canadian businesses is enormous.

What's critical is that our entrepreneurs understand the challenges these markets face. It means understanding not only the "push" of what we have to offer, but also the "pull" of what each country needs. If our entrepreneurs recognize the unique challenges that must be met - and the opportunity such challenges provide - they can be enormously successful in these burgeoning new markets.

What we need to do is find a way of matching Canadian companies to partners in emerging countries.

Well, you may say, sounds good in theory. But does Canada really have what it takes to develop a distinctive new priority for its foreign policy - one based in science and driven by innovation? Can we match our actions with our ambition? The answer is absolutely!

In fact, much of the infrastructure is already in place. We have the International Development Research Centre, created in 1970 to help developing countries use science and technology to find "practical, long-term solutions to the ...problems they face."

We have the Global Health Research Initiative, a partnership among the Canadian Institutes of Health Research, Public Health Agency of Canada, and Health Canada, and IDRC and the Canadian International Development Agency, which does twinning between Canadian and developing world scientists.

We also have world class universities that could become involved not only through collaborative research, but also by harnessing the incredible energy and enthusiasm of Canadian youth to address global problems. I am amazed, impressed - and inspired - by the ingenuity, energy, commitment and creativity of today's students in wanting to help solve global problems. Anybody that says campus idealism died in the 1960s isn't visiting Canadian campuses! Students are just looking for an outlet for their idealism - and branding Canadian foreign policy as helping developing countries through science and innovation answers that need.

Canada has signed Science and Technology Agreements with both China and India, as well as a Framework Agreement for Cooperation on Science, Technology and Innovation with Brazil.

And International Science and Technology Partnerships Canada (ISTP) is funding joint projects between Canadian and Indian and Canadian and Chinese scientists.

Another important asset for Canada is our Diaspora. Canada is home to more than 15,000 scientific and health-related professionals from developing countries.

Many of these still have family there. Ties. Connections. And these linkages provide a unique

opportunity to expand our scientific and trade networks, while at the same time enabling our scientists and engineers to give back to the nations which they have come from.

And very significantly, we have the new Development Innovation Fund. In the 2008 federal Budget, the Government announced \$50 million for the creation of the Development Innovation Fund which would, and I quote, “create breakthrough discoveries with the potential to significantly improve the lives of millions in the developing world.” end quote.

So there’s simply no doubt that Canada has what it takes to project science and innovation internationally to help solve global challenges - and to foster innovation in developing countries. To expand beyond blue helmets to white lab coats.

Let me just quickly suggest five reasons for doing so.

First, Canada will help solve important problems plaguing five billion people in the developing world. And, in the process, address one of the most critical issues of our times - the disparities in health and well-being between the rich and poor countries. Why is it acceptable that a child born in Canada – like my own daughters – will live to 80 years of age, while a child born in many parts of sub-Saharan Africa will only live to age 40?

Second, Canada will develop solutions that will benefit us domestically, especially with respect to shared threats such as H1N1, climate change and chronic disease. Some of these solutions will apply to Canada’s Aboriginal communities. Indeed, addressing the challenges of our own Aboriginal population will reinforce our credibility as a country that helps developing communities abroad by also addressing needs at home.

Third, developing a brand related to innovation, while it may begin with development, will also reinforce trade relations in innovative sectors, helping to market Canadian companies abroad.

You know, it used to be that emerging economies were rather dismissively labeled as “the rest of the world” in pharmaceutical circles. Well guess what? The “rest of the world” has most of the people, most of the health problems and most of the economic growth. Even in the face of the current economic slowdown, China is expected to grow between seven and eight per cent this year. India, between six and seven.

Countries - and companies - that engage with these markets will prosper and gain comparative advantage. So today, “the rest of the world” *is* the world. And if Canadian companies are not in Shanghai, Mumbai or Dubai, they’re missing out on the greatest commercial opportunities of our time.

Fourth, by helping countries solve problems with science, we help them to develop, to raise their living standards. Stated another way, the best way to keep countries poor is to make sure that they don’t develop their own talent. That they don’t turn their own domestic ideas into products and services. Canada can help countries escape that trap.

For example, why not create a centre in a region like sub-Saharan Africa to connect scientists and entrepreneurs, similar to the MaRS Discovery District in Toronto,

Fifth, science fosters diplomacy. A friend of mine, who was an American Colonel involved in negotiations with the Soviets on issues of biosecurity, told me that often, when the diplomats reached an impasse, it was scientists, on both sides, who broke through. That's because they spoke a common language. The language of science. Perhaps the only universal language.

So what should we do? The upcoming meetings of the G8 and G20 in Muskoka next summer provide important opportunities to shape the agenda. Exercise leadership. And set us on a new course.

At a time when the G20 is emerging as the new institution for global governance - when power is shifting from the West to a more global community - Canada needs to redefine its role. Re-establish its relevance. Canada should raise the role of science and innovation, showcase the Development Innovation Fund and invite other nations to develop similar initiatives.

Imagine what could happen if every international development agency also funded science. Think of what that could mean to global health. To food and energy security. To climate change and the environment. To the creation of a safer and more equitable world.

Think of what projecting our science and technology internationally could mean to Canadian businesses. To companies wanting to reach new customers. To entrepreneurs seeking new partners. Developing new markets. Increasing trade. Creating more jobs for Canadians

So for Canada, expanding beyond blue helmets to white lab coats brings significant benefits - to brand our foreign policy based on helping others through science. Solving big problems. Driving Canadian innovation. Opening new markets. Helping countries to develop. Promoting diplomacy. And carving a niche for ourselves in the emerging G20.

Canada is not a country of small dreams. Modest ambition. Limited vision. The proposal I have made today builds on our strengths, honours our past and points us to a larger - and better - future.

Around the same time that Lester Pearson won that Nobel Peace Prize, there was another significant event in this country - the cancellation of the Avro Arrow. Whatever the reasons behind that decision, there is no question that it is now remembered as an opportunity lost, as a time when the genius of our people was not matched by our vision.

Let's not make the same mistake, fifty years later. Let's seize this moment, this unique confluence of Canadian expertise and international need to project Canadian science and innovation internationally to help solve global challenges.

It's just the kind of marriage between science and public policy that this conference envisions and these times demand.

Thank you.

- Peter Singer