



NANO STRATEGY: Dr. Peter Hackett

>Wednesday, May 2, 2007 at 3:00 p.m.

>Government of Alberta Nanotechnology Strategy Announcement

Thank you Nils, Honourable Premier Stelmach, Minister Horner and other guests. I'm happy to take part in this next step in building nanotechnology in Alberta. And it's a big step in a big idea. A vision to make Canada, and Alberta, an idea-leader. A place where bold steps are taken, where risk is embraced. A place where every innovator would want to be. A global innovation icon.

Now why do I say that we could be that?

It's because Albertans have the right attitude – we embrace risk. In that other global innovation icon, Silicon Valley, innovators spring from a culture that loves to surf. When maverick waves break just north of San Francisco, people rush to ride waves that are thirty feet high. In Alberta, we ride bulls. And if you've been to Northlands and you've seen bulls that we ride, you will know that Albertans embrace risk as strongly as any Californian. And that means that we have the essential resource to succeed as strongly as they do. And succeed we will.

I want to say a few things about building big ideas and the courage that takes. Some 20 years ago, I was a Principle Research Officer with the NRC and along with two colleagues; Martin Moscovits from Toronto and Dennis Salahub from Montreal. I prepared a proposal to the federal government around what we called Systems of Finite Size.

We were told that while the proposal was exciting and the researchers were great; the ideas were impractical. Industry would never be interested. There could never be applications. The network was cancelled.

Maybe it was just another bad proposal and this is just sour grapes. Or maybe it was just bad branding. Systems of Finite Size is called nanotechnology these days. At any rate the big idea did not fall on fertile ground.

Fast forward, 20 years. I'd spent my time working my way up in the NRC until, as Vice-President Research, I was finally able to create and design the National Institute for Nanotechnology. In Alberta, this idea fell on *very* fertile ground. And the Government of Alberta, the University of

Alberta and the federal government bought into this big idea in the big way that is the Alberta way.

And you are beginning to see the results around you. We are beginning to attract attention. Our Alberta Ingenuity Scholar, Dr. Richard McCreery and his team of outstanding researchers who left Ohio State University to come here is an excellent example of that.

But we must do more. We have made a good start. The nanotechnology strategy charts a bold course for where this province needs to go.

We have to transform the way we do research and innovation in Canada, and Alberta. We have to transform our definitions of success. We have to transform what our innovators can aspire to.

So this is where we are going, The BlackBerry Pearl: a global innovation icon, made in Canada, and dominating global markets.

How are we going to get there? How could Alberta Ingenuity help?

Well we went and asked the guy who brought you this – the BlackBerry

Mike Lazaridis is investing \$100 million of his own money to endow the Institute of Quantum Computing at the University of Waterloo to bring an elite group of researchers together to create the next breakthrough technology – so that Canada can be first and capture the advantages of being the first mover.

That is why the Board of Trustees of Alberta Ingenuity have approved an investment, derived from \$200 million of our endowment, to support a small group of elite researchers, who will create breakthrough technologies – so that Alberta can capture the advantages of being the first mover in nanotechnology.

Ingenuity has established a pretty good working relationship with the Alberta government over the last few years. The Prion Institute is up and running. Two fabulous scholars have been recruited, nearly \$15 million has been invested in research and an industry program has been created. We also expect great things from our Water Institute, which will be “open for business” and accepting proposals later this year.

And we are pleased to provide the same level of support and partnership for Alberta’s nanotechnology strategy. And in fact, for any future innovation strategies that the government may bring forward.

You know our motto is, if it involves science and engineering in Alberta: “Get it done - use ingenuity.”

Let's wrap things up and think about why all this is really, really important.

The first law of innovation is: Be First. And the second law is: Don't Be Second. The third law is: Today's innovations are tomorrow's commodities. These are the rules that Alberta must live by. There is urgency here.

Why is it so important?

Let me answer that in a roundabout way: last week, I went to hear the great Kenyan palaeontologist Richard Leakey speak at the Telus World of Science. A fabulous evening – and congratulations to the World of Science for bringing it off.

Richard spoke on the challenges of climate change and the impact on his country. He spoke of Kenya's energy crisis. It's simple: they have no energy. He told us of a school that he passes every day where each child brings a piece of wood to cook that day's lunch. And he told us of similar challenges in clean water, good health and good food. And he told us that *his* world is waiting for *our* world to bring forward technologies to provide solutions to each of these challenges.

Nanotechnology can address each of these challenges.

Alberta's Nanotechnology Strategy, with its focus on energy and the environment, health and medical technologies and agriculture and forestry, will not only meet the needs of Albertans and create a resilient and dynamic innovation system here at home – it will also bring forward products that the world needs.

Products that will command global markets.

To do that, we have to go big or go home.

To do that, we have to take risk.

To do that, we need absolutely the best people.

To do that, we must provide them with exceptional support in every way.

And to do that, we need exceptional results that will provide social and economic benefits for all Albertans. Technology commercialization is a big piece of that puzzle, as is industry, government and academic cooperation and partnerships.

And what we start today in nanotechnology could be but the first offering in a provincial franchise that we could duplicate across the board. It's definitely a possibility and an avenue worth exploring.

Go big or go home, right?

I think the Alberta government got it right when it invested in NINT. I think you got it right taking that investment one step further with today's announcement.

We need to work together to get it right one more time: to change the research landscape in Canada and to redefine what our innovators can aspire to achieve.

It will great to be in Alberta while this is being done.

On behalf of our Chair Mr. Ron Triffo and all of the Trustees of our Foundation:

Thank you Premier Stelmach and Minister Horner and all your colleagues in the Government of Alberta for letting Alberta Ingenuity be a part of this.