R&D and the culture of risk in Canada

1. I would like to talk about our risk appetite in Canada, or more importantly, the lack of it compared too many of our trading partners. And how this impacts the health of our knowledge based or technology economy.

2. I think we need to change our risk appetite, our culture of risk, or face damaging our technology ecosystem.

3. Any discussion of R&D or R&D policy always starts with the statement that ‘Industry in Canada does not invest enough in R&D’. Why is that? Well let’s start by defining industry. What are the major industry sectors? Finance, banking, insurance, does not need R&D to innovate. Manufacturing is a branch plant phenomenon, we do not design cars in Canada, we assemble kits, the R&D is done largely beyond our borders. The resource industry measures its success in terms of exploration and discovery not R&D. The oil and gas sector’s biggest issue is finding a way to market, R&D is way down the list of priorities.

4. So guess what? All the heavy lifting is done by a relatively small tech sector, that clearly punches above its weight to contribute the investment dollars that we have.

5. This tech sector is small (how many fortune 500 companies do we have?) but it's also fragile. It's ICT, its aerospace, its clean tech. We create many small companies but we don't get very many to a size that has an ability to impact the economy. Most importantly companies that can build the critical mass behind the tech sector. This is where the risk averseness really hurts.

6. And it's compounded by a lack of policies that could help.

7. The biggest way this risk averseness manifests itself is through the lack of risk capital. Canada has much smaller pools of risk capital than our neighbour. We therefore tend to fund our companies at lower levels than the competition. They are weaker and often end up getting acquired by that competition before they can realise their full potential.

8. If you are lucky enough to find capital and grow successfully there comes a point at which you need to raise substantial growth capital. The principle way of achieving this is to take the company public. This is where risk averseness comes in again.

9. Our public companies achieve valuations that are much lower than their peers south of the border. This applies to TSX listed companies as well as dual listed Canadian companies. A recent analysis by Byron Capital Markets suggests that this under valuation is systematic across the tech sector. ICT companies for example are valued at a 23% discount in the software sector and a 34% discount in the hardware sector.

10. So our companies are cheap. So guess what? They are acquired.

11. The Branham group has listed 164 significant ICT companies that have been lost to acquisition in the last decade. Many of them public. And the trend in losing public companies is accelerating: Rugged.com, Gennum, Mosaid, Zarlink, March Networks, Bridgewater just in the past year. Do you remember Newbridge, ATI technologies, Cognos, Tundra Semiconductor, CREO, DALSA? We are losing companies far faster than we can create them.

12. And our security regulators compound this problem by making hostile acquisitions easier in Canada than south of the border.

13. If you look at the ICT tech weight in the S&P 500 it has hovered around 15%over the past decade but accelerated in the last few years to above 19%. The ICT tech weight on the TSX

has declined steadily from a peak of about 8% over the last decade to 1.2%. If you take out RIM and Opentext. Yes 1.2 versus 19 percent.

14. This is clearly not a good outcome, it is very disturbing, but there are still more reasons to be concerned.

15. First going public is virtually the only route to growth capital. There is virtually no PE capital in tech in Canada. As the stable of companies diminishes, we have less analyst coverage, fewer bankers with sector knowledge, less institutional knowledge, even less risk capacity, even poorer valuations, and so less opportunity to take companies public. A death spiral.

16. Second public companies are a training ground for business talent. One of the other key attributes of building high growth companies is experienced business talent. You can't have high growth and learn on the job. Acquisitions often create R&D branch plants. The business

functions are stripped off and centralised. The training ground disappears. It’s harder to build the next one.

17. Third, Public companies can become cluster anchors as they grow. They create an infrastructure, source talent, source services that help entrepreneurial players grow up.

18. Tech companies are always volatile, but only longevity gives you time to innovate, our risk tolerance in Canada does not give companies that longevity. Would Apple have survived here?

19. So what do we need to do?

20. First, stop talking about a monolithic, mystical ‘industry’. Focus on the sectors. The needs and opportunities then become virtually obvious. Recognise how small and fragile the tech

sector really is. Recognise how the size mitigates against winning in the increasingly intellectual property driven wars.

21. Solve the risk capital problem at least in the seed and venture stages. Recognise that this cannot be done in one shot government handouts (a la the proposed 400M in this past budget) or wishful thinking that the money will come across the border (it won't, recent experience shows that). The problem is systemic, tied to risk aversion and will take years to change. We need significant new capital on an annual basis. Perhaps a billion per year. Per year not a lump once upon a time. This has got to come from the private sector or private individuals not from government where risks on this magnitude are not sustainable. We should turn the 400M into a tax credit to leverage and incent the private sector. We need to adopt a BC-like tax credit system at the federal level. Match the provinces-Ontario promised

just such a credit in it’s election platform. And don’t forget the talent. Money needs people with the skills to deploy it. It will take time to build this ecosystem.

22. Next we need to change our regulatory framework through the OSC to give companies a fighting chance to fend off hostile takeover attempts. There are plenty of ways to protect shareholders, but we need to put some decision making power back in the hands of boards and management. At least to the same extent as US jurisdictions.

23. Then there are the public markets and our culture of risk. How do you change culture? And by this I do not mean swinging from black to white. Some shade of grey would be a fine start. Our banks do not have to emulate JP Morgan. We do have to recognise however, that a big chunk of our economy, the banks, insurance companies, telcos and service providers,

airlines etc are protected from foreign competition. What does that do to our culture? Is it sound to have the TMX owned by protected banks? Resource companies are in global competition but you can't move the resources out of the country (except to dig them up!). And even there the public valuation trends are starting to mimic the tech sector.

24. So how do you change culture? Perhaps by recognising that the world is shifting. Economies everywhere will be increasingly driven by peoples own self reliance, dependence on their own skills and drive. More so than on government or the private sector. Many of our children will be self employed. They will be entrepreneurs. So what do we need to strengthen entrepreneurship and self reliance? How do we support and strengthen these values? How do we ensure we have the right skills, access to resources, capital (microcapital) ? This is the mandate of Startup Canada. (www.startupcan.ca) A young volunteer movement created to have a grass roots dialog on entrepreneurship, on its

success and challenges, on the opportunities, barriers and drivers of this growing sector of our economy. Startup does not seek government funding, it will partner wherever possible with other organisations and seek corporate sponsors to engage with the broadest possible spectrum of entrepreneurs both directly and through the social media.

25. Finally we have to act with some urgency. None of these issues are new. We have discussed the same problems and the same solutions for decades. But we are running out of time. The decline in the number of public companies and our inability to replace them with new entrants should be a wake up call.