Mr. Chair and Committee members. Thank you for the invitation to speak with you this afternoon and thank you for deciding to invest committee time on Safety Code 6.

When I ran the Canadian operations for Microsoft, I learned it is critical to focus on process. Today, as a Board member for Indigo Books and Music, my role has shifted toward governance and oversight. In both roles, process is critical to success. Government is the largest corporation of all, so process is of paramount importance. As someone who regularly examines both success and failure, I can explain why the Safety Code 6 process is a failure by all metrics and has left Canadians unprotected.

There is a book written by Nassim Taleb called the Black Swan. It is a focus on very low probability, high-impact events that aren’t supposed to happen. Oils spills, train derailments and airplane crashes are some of the events in this category. Taleb calls these Black Swan events. If one decides all swans are white, and refuses evidence of Black Swans, then one will conclude all swans are white. Black Swans are rare, but exist. Unfortunately, experts convinced themselves these events had zero probability and did not plan appropriately. People died.

The American Academy of Environmental Medicine (AAEM) is an international organization of physicians and scientists that has predicted, among other things, the rise in multiple chemical sensitivity which is now protected in many public policies. Regarding the unprecedented increase in wireless devices, the Academy forecasts “a widespread public health hazard that the medical system is not yet prepared to address.”

I believe that all Health Canada’s analysis focuses on identifying and counting white swans while ignoring Black Swan evidence. Health Canada’s representative informed this committee on March 24th “… some of these studies report biological or adverse health effects of RF fields at levels below the limits in Safety Code 6. I want to emphasize that these studies are in the minority and they do not represent the prevailing line of scientific evidence in this area”. In other words, Black Swans exist.

In your handout is a document entitled “Analysis of 140 studies submitted by C4ST during the Public Comment period on Safety Code 6”. There is a chart that shows Health Canada accepts that there are in fact 36 studies, all passing Health Canada’s quality criteria, showing harm at levels below Safety Code 6. As a Canadian I find this confusing. As an executive I find it inexcusable.

Of the 36 studies Health Canada deems satisfactory:

- Cancer is linked in 6 of them.
- In 13 of them, the brain and/or nervous system is disrupted.
- In 16 studies Health Canada admits that biochemical disruption occurs.
- 7 high level scientific studies indicate an effect on intellectual development and/or learning behaviour.
All of these studies showed impacts with radiation below Safety Code 6 limits. How was this Black Swan evidence evaluated?

In our two year investigation, C4ST has determined that Health Canada does not even have the proper software required to access, summarize and analyze the large number of relevant studies. If our group of learned and qualified volunteers can uncover 140 studies, how many more are being missed or ignored?

Health Canada references its “weight of evidence” approach. It is unclear how many studies you need to outweigh 36 studies showing harm, especially to children. I cannot fathom why Health Canada is not highlighting these studies and prioritizing their implications. Despite repeated requests to publish the weight of evidence criteria, as per international standards, Health Canada refuses to do so. Even its recent 2015 Rationale document does not provide this critical information.

Health Canada dismisses scientific evidence unless it shows harm where the microwave levels are strong enough to heat tissue, such as skin. The notion that microwaves are not harmful unless they heat your skin is decades out of date. The core premise of this white swan dates back to Einstein’s theory that non-ionizing radiation cannot cause harm, or if it does, it must heat tissue to do that. Albert Einstein passed away the same year that Steve Jobs was born. To think the science has not evolved since then is unacceptable and classic white swan thinking. It’s part of a process predetermined to fail.

Health Canada says on its website today that there is no chance Wi-Fi or cell phones can harm you because it has studied all the science. But when pressed under oath, Health Canada officials give a more fulsome answer. In a Quebec Superior Court in February, 2013 Health Canada senior scientist James McNamee admitted that Health Canada only assesses risk based on the thermal effect i.e., the heating of tissue.

Unfortunately, Health Canada has not invested the necessary time, nor had the balanced opinion of experts necessary to undertake a proper review. Our research has uncovered that the Health Canada author of Safety Code 6 has published papers demonstrating his bias towards this topic.

In a few hours, over three days, this health committee has spent more time speaking with the scientific experts who believe there is harm from wireless radiation below Safety Code 6, than all Health Canada officials combined.

You can’t find Black Swans when you don’t talk to the experts who have identified them.

There is a fundamental business rule: “You can’t manage what you don’t measure”. It is clear that Health Canada not only doesn’t follow that rule, but even resists it. A memo, obtained under Access To Information, to the Minister of Health, March, 2012 revealed that, “…HC does not support the recommendation to establish an adverse reaction reporting process specifically for RF exposures... Consumer complaints may be directed to the web-based system that has been developed under the new Canada Consumer Product Safety Act (CCPSA).” This is an inadequate solution as well as a missed opportunity.

I refer you to the C4ST fact sheet. I would like to highlight 3 examples.

1. Health Canada’s Safety Code 6 is among the countries with the worst guidelines in the world.
2. Canada has fallen behind other countries such as France, Taiwan and Belgium in protecting Canadians.

3. Health Canada has wasted over $100,000 of taxpayers’ money. The Royal Society of Canada report is not an independent review.

Health Canada states Safety Code 6 is a guideline and other organizations at the provincial and local level of governance are free to implement lower levels as they see fit. However, that is not what happens. We have witnessed school boards, power and water utilities, Industry Canada and manufacturers depending on Health Canada’s analysis and frankly abdicating to it. They don’t perform their own analysis.

Safer solutions exist. There are several situations in Canada regarding cell towers where the proponents have voluntarily offered to restrict radiation exposure. In some cases thousands of times less than Safety Code 6. There is a solution in Iowa for smart meters that uses a wired meter, which provides a safer, more secure solution at lower cost.

Given that our track record in North America is not successful regarding products such as tobacco, asbestos, BPA, thalidomide, DDT, urea formaldehyde insulation and many others, use of the Precautionary Principle of prudent avoidance should be recommended until the science proves beyond reasonable doubt that there is no potential for harm.

For the last three years science has published a new study every month that shows irreparable harm at levels below Safety Code 6

That is why we are asking the committee to take 3 decisive steps:

1. **Public Awareness:** Conduct a national campaign to educate Canadians about methods to minimize exposure to RF radiation by banning Wi-Fi in daycare centres and pre-schools, and banning the marketing of wireless devices to children

2. **Recognition:** Protect individuals who are sensitive to RF radiation by accommodating them with safer levels of microwave exposure in federal workplaces and federal areas of responsibility.

3. **Report:** Create an adverse effects reporting system for Canadians and a publically available database to collect improved incidence data regarding potential links between health effects and exposure to RF radiation.

In parallel to the above, recommend that Health Canada conduct a comprehensive systematic review subject to international standards, regarding the potential harmfulness of RF radiation to human health, with a scientific review panel that is balanced in opinion.

It was a textbook case of Black Swan thinking that has led to the failure of Safety Code 6.

C4ST volunteers found 36 Black Swans that Health Canada agrees are high quality. How many are available if Health Canada sincerely looked? Better yet, how many Black Swans will it take before Health Canada takes serious action?

Thank you.