HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on Industry, Science and Technology

INDU • NUMBER 074 • 1st SESSION • 41st PARLIAMENT

EVIDENCE

Thursday, June 6, 2013

Chair

Mr. David Sweet

Standing Committee on Industry, Science and Technology

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● (1530)

[*English*]

The Chair (Mr. David Sweet (Ancaster—Dundas—Flamborough—Westdale, CPC)): Good afternoon, ladies and gentlemen. *Bonjour à tous*. Welcome to the 74th meeting of the Standing Committee on Industry, Science and Technology.

You will see that our agenda says we go from 3:30 to 5:15 p.m. It is my intention to suspend the meeting at 5:10 p.m., because usually everybody wants to greet the witnesses, etc. If we want 15 minutes of actual business, that transition time will be necessary. Also, as I've already mentioned, but just in case you didn't hear, you'll notice that there's about four minutes' difference between the clock on the wall and our BlackBerrys. As usual, we'll be using our BlackBerry time, because that's synchronized among all members.

Now I'll introduce the witnesses who are before us. Here with us on location we have Bogdan Ciobanu, vice-president, industrial research assistance program, National Research Council; also Bryon Drew De Kergommeaux, director of strategic and operations alignment, industrial research assistance program; and Jason Charron, executive director, national office, industrial research assistance program. Also, here with us from the Canadian Cloud Council is John Cousens, director for the public sector, and by video conference is Martin Kratz, chairman of the board of the Canadian Cloud Council.

It's my understanding, Mr. Ciobanu, that you'll be doing the opening remarks for the council. Is that correct?

Mr. Bogdan Ciobanu (Vice-President, Industrial Research Assistance Program, National Research Council Canada): That's right.

The Chair: Madam LeBlanc.

Ms. Hélène LeBlanc (LaSalle—Émard, NDP): It seems that Mr. Kratz in video conference might have his microphone on. Is that the noise I hear?

The Chair: Mr. Kratz, if you would just mute that, then when we go to you for a question, you can unmute it and answer the question. That way also we're not hearing everything that happens. I'm certain you'll be more comfortable with that anyway.

We'll go to Mr. Ciobanu for six to seven minutes, please.

Mr. Bogdan Ciobanu: Good afternoon and thank you for the opportunity to share with you information about the digital technology adoption pilot program.

[*Translation*]

My name is Bogdan Ciobanu. I am the Vice President of the National Research Council of Canada Industrial Research Assistance Program, more commonly known as IRAP. With me today are my colleagues Jason Charron and Drew De Kergommeaux.

[*English*]

For those of you who are not familiar with our organization, IRAP provides direct services to innovative businesses in all industry sectors and communities across Canada. We work with small and medium-sized businesses to help them develop, adopt, and adapt technologies and incorporate them into competitive products and services to be commercialized in the global marketplace.

Through an extensive network of field staff, IRAP is providing SMEs with a comprehensive suite of innovation-related services and funding. The thousands of clients IRAP serves every year interact directly with our field staff of over 200 industrial technology advisers.

Through IRAP, clients can also access the innovation expertise and infrastructure available in Canadian universities and colleges, research labs, business accelerators, and other organizations active in the innovation system. In addition, clients can receive funding to help them undertake R and D projects with a clear commercial outcome.

IRAP's business model has been considered a successful one by different studies and reports. The most recent evaluation, covering the period from 2007 to 2012, found that IRAP's clients spend more in R and D and grow faster than non-IRAP clients. For every IRAP dollar invested, the clients generated on average $10 in revenue.

Let me now refer more specifically to IRAP's role to support the adoption by SMEs of digital technologies. The digital technology adoption pilot program, DTAPP, was launched in November 2011, with the mandate to increase the productivity and competitiveness of SMEs through the accelerated adoption of digital technologies. In line with IRAP's business model, DTAPP clients receive not only funding, but also advisory services to help them clarify needs, identify solutions, and select the most appropriate technologies and implement them successfully in their businesses.

A few weeks ago an evaluation of DTAPP's first year of activity was finalized. I am very pleased to inform you that the implementation of the program and its capacity to meet objectives were positively reported, and the program is demonstrating a significant and positive impact on firms.

Client firms report that with DTAPP's support they have been able to lower production costs, increase productivity, improve and fully integrate management systems, and improve the quality of products and services. More specifically, 90% of firms report having achieved success with their DTAPP projects, with 71 % meeting or exceeding their expectations. Fully 92% indicate that the project had a positive impact on productivity, and 89% of firms have increased their technical capabilities through their DTAPP engagement.

Since the beginning of the program, 731 firms have been participating in DTAPP, 511 of which have received funding. As of today, 118 SMEs have completed the digital adoption project and because of DTAPP, 87% of those firms are more likely to undertake another digital technology adoption project.

We are finding that firms need to adopt digital technologies in order to maintain or increase competitiveness in existing markets, to enter new markets, and because of customer pressure, to improve product quality or price. The biggest challenges they face are the availability of expertise, inadequate business processes, lack of leadership, resistance to change, and the high costs associated with digital technology integration.

● (1535)

[*Translation*]

In conclusion, DTAPP works with clients and the best experts in the field to identify solutions that are best suited to their productivity issues. If the best solutions include the adoption of a digital technology, the program will help them to select the most appropriate technology and integrate it into their activities.

This concludes my remarks. Thank you very much for your attention. I am happy to take any questions you may have.

[*English*]

The Chair: Thank you, Mr. Ciobanu.

Now we'll hear from Mr. Cousens, please, for six or seven minutes.

Mr. John Cousens (Director, Public Sector, Canadian Cloud Council): Thank you very much.

I want to present today a view on cloud computing in Canada. I represent the Canadian Cloud Council. With me via video conference is our chairman of the board, Mr. Martin Kratz.

We've provided a presentation today—you all have a copy of the slides—on a high-level definition of what cloud computing represents. I won't read it to you, but the key takeaway is that it is a business model, not purely an IT or technology model.

First of all, we're seeing three major technology trends worldwide that every major analyst will recognize: social, mobile, and cloud. It's the confluence of these three technology innovations and directions that is driving cloud computing worldwide and changing the way that citizens, as well as consumers, interact with companies and innovate. It's the consumerization of IT that is changing, and it's why I can transfer funds on my iPhone from one bank account to another right now. Why can't we do that with our government?

The next slide is a copy of the World Economic Forum report on cloud computing. In 2011 I believe Minister Clement attended that forum in his role as industry minister at the time.

There are three key highlights that I would take to this committee. First, cloud computing was identified as an innovation platform that creates products and services in enabling new business models faster, with wider information sharing. Second, it dramatically lowers operating costs for businesses and governments worldwide. The final highlight on this particular slide is that they call it a job creation model. It is growing rapidly worldwide, and it is an area that needs to be invested in.

The next slide talks about first movers. There has been government leadership around the world in adopting cloud computing technology. Why, you might ask, at the government level? We've seen executive branch leadership in the United States, starting on December 9, 2010, with what they called a “cloud-first” policy, where IT organizations had to evaluate cloud technology prior to doing anything else in-house. The U.K. government instituted a “g-cloud first” policy in March 2011. New Zealand quickly followed, and just last week Australia launched a national strategy for cloud computing. which was mandated from the prime minister's office.

The next slide talks about Canada's imperative. In 2004 Canada was ranked number one worldwide for e-government. From the most recent rankings, we are now in 12th position. The World Economic Forum evaluated the Government of Canada's ability to procure advanced technology products as 47th in the world.

Why a national cloud strategy? Two specific issues are at hand for the opportunity. The first is operational benefits: better aligning the demand for IT with the consumption of IT; matching that demand with consumption; job creation; as well as providing some form of democratic access to technology.

Cloud computing, as we discussed prior to this, removes the barriers of capital. It allows someone with two people as employees to access technologies that were available only to those in corporate Fortune 500 companies. What it also does is it drives job growth. For enabling small and medium enterprises, cloud services are highly secure and scalable. They allow other entities to create new applications and services much faster than previously done.

The ICTC, the Information and Communications Technology Council of Canada, produced a report about cloud computing in Canada, and recently recommended a government-led adoption policy . IDC also stated that by 2015, 14 million jobs worldwide will be created in this industry, with a compounded annual growth rate of 29%. Those are fairly dramatic numbers.

I've provided a couple of case studies here.

The first one is out of the U.K. It's their g-cloud. One year in, they have 800 suppliers on that g-cloud app store, 80% of which are small and medium enterprises. It absolutely stimulated their small and medium enterprise ITC sector dramatically.

The second slide shows what their benefits were, two of which I would highlight to this committee. The first was transparency with services, prices, and commercial terms all online, which drove massive competition. It disrupted the status quo and it drove down costs. That led to significant savings. Their statement here is that the pay-as-you-go model saved up to 90%. Those are dramatic numbers. There was no need to spend millions of pounds to "keep the lights on". So transparency and savings were the key takeaways for the U. K.

● (1540)

The next quick case study is the U.K. cloud-first strategy. After two years they have saved up to $5.5 billion annually by moving to cloud services, and have stimulated the economy.

The final slide I have on the discussion is a call to action. Governments should become a model user of cloud services, making a concerted effort to follow other leading economies in adopting a cloud-first policy and bringing along our Canadian small and medium enterprises. I believe they will rise to the challenge.

With that, I conclude our remarks.

The Chair: Thank you very much, Mr. Cousens.

Now we'll move to our usual rotation of seven-minute slots, and we'll begin with Mr. Braid.

Mr. Peter Braid (Kitchener—Waterloo, CPC): Thank you very much, Mr. Chair.

Thank you to all of our witnesses for being here this afternoon, and for your presentations.

Mr. Ciobanu, I have a couple of questions to start for the IRAP program, and specifically DTAPP.

I'll begin by providing you with some feedback. As a member of Parliament, I get a lot of positive feedback about various government departments, but perhaps the one I get the most positive feedback about is IRAP. I wanted to share that with you, and if you could pass that along to your colleagues, I would greatly appreciate that.

We have an IRAP office at the Accelerator Centre at the University of Waterloo, the David Johnston Research and Technology Park. It is extremely beneficial to have that in our community.

Could you give us a bit of detail about the DTAPP program, when it was established, how much funding the program has, at what stage the program is? Could you set the high-level context for us, to start?

● (1545)

Mr. Bogdan Ciobanu: Thank you for your comments and for your question.

IRAP was launched in November 2011. The main purpose of the program is to support small and medium-sized businesses in acquiring digital technologies in the wider sense. Why should they acquire digital technologies? It is to increase productivity and to become more competitive.

Digital technologies include, of course, software and hardware. They include automation, robotics, cloud computing, a very wide array of technologies. There is no clear and narrow definition. It's whatever can help a company increase productivity and competitiveness using software, hardware, electronics equipment, or digital equipment, IRAP and specifically DTAPP, can help with. The budget is $80 million over three years, so this pilot program will end in March 2014.

As I mentioned, there was a mid-term evaluation, which was very positive, and it will probably be used by the government regarding whether or not to renew this program, to make conclusions, and to develop new initiatives to help companies acquire technologies and increase productivity.

How do we do it? We've put together a team of specialists in digital technologies and in implementation of digital technologies. This team joined IRAP in the last year and a half. It has added to the already strong field staff of IRAP. We have 200 people on the floor working with the companies, as you very well know. We have added 10 specialists in digital technologies.

First they look into the company's needs. What are they? They can be very different. To increase productivity they may start with very simple things like a new layout of their manufacturing facility, new processes, or a reviewed process. Then we'll look into digital technologies. Do they apply to the company's needs, or can they improve the company's productivity, and if so, which digital technologies can do that? We'll help the company select them and integrate them into their production and train the personnel for maximum return on their investment.

There's a whole cycle from the very early stages of needs identification, to the selection of the solution, to the implementation, and the training of their staff.

Mr. Peter Braid: That's great. Thank you very much.

Mr. Bogdan Ciobanu: IRAP can provide companies a maximum of $100,000 contribution per project. That is not for the acquisition of the equipment per se. This is to support all the adviser services, the grey cell part, the engineering, the selection of the equipment, training of personnel, changing the processes in the companies, and adapting those technologies to their needs. Just the engineering and the R and D part are necessary to maximize the benefits of acquiring digital technologies.

Mr. Peter Braid: Excellent.

It sounds as though the DTAPP has been very successful so far.

What lessons do we learn and can we apply with respect to the adoption of digital technology for SMEs writ large across the country, that may or may not be able to take advantage of DTAPP? What lessons can we learn and apply to enhance the adoption?

● (1550)

Mr. Bogdan Ciobanu: First of all, the main barriers to small businesses adopting digital technologies have been identified as follows. First is the lack of resources, people, and understanding of digital technologies and understanding of their implementation in the company. Second is process and organizational issues, management issues, leadership issues, so things related to the corporation itself. Third is a lack of financial resources. These three have been identified in interviews, discussions, and analyses of hundreds of companies as the main barriers to adoption of digital technology.

Of course, we've tried to work on some of them. We can work more with a company. For example, on resources, if a company does not have the resources in-house, we bring the best experts from colleges, other organizations, or private consultants into the company. If they want to hire, we support them in hiring specialized personnel.

In terms of organizational changes necessary for the company to make before bringing in technologies, we help them too with industrial engineers, with advisory services, to make those necessary changes in the organization.

Of course, for the financial support we have our program. We work with organizations such as the BDC, which can provide loans for the acquisition of the equipment, and other financial organizations.

The Chair: Thank you, Mr. Ciobanu.

Now we'll move to Mr. Stewart for seven minutes.

Mr. Kennedy Stewart (Burnaby—Douglas, NDP): Thank you, Mr. Chair.

Welcome to all the guests. Thanks very much for coming today.

I have some questions for you, Mr. Ciobanu.

I'll zoom out a bit from IRAP. With what other programs would you compare yourself internationally? Are there others? Maybe you even partner or talk with them. Could you give us some examples?

Mr. Bogdan Ciobanu: Internationally there are a few programs that are similar in some ways and different in others from IRAP. Finland has one called Tekes. There is OSEO in France. They are very well known and strong programs internationally. There is a very similar program to IRAP actually, which IRAP helped Thailand implement. It's tailored through IRAP.

Mr. Kennedy Stewart: I was going to ask, just as you're going through these, if you could give us a sense of how the budgets compare in terms of the amount of money that's spent by these organizations. Do you have any idea?

Mr. Bogdan Ciobanu: Yes, the countries are very different in size. France is twice as big as Canada.

Mr. Kennedy Stewart: Sure. You could do per capita if you want; it would be fast.

Mr. Bogdan Ciobanu: Finland is probably six times smaller. There are similar programs in Chile.

I don't want to get into all those details of budgets, but they are much bigger. For example, OSEO in France has a budget that is close to one billion euros. The budget for Tekes is about half a billion euros, and Chile's is about $250 million.

Mr. Kennedy Stewart: You mentioned some figures here, but what is the budget for IRAP?

Mr. Bogdan Ciobanu: IRAP's overall budget is $279 million this year.

As you probably know, it was doubled in the 2012 budget—more than doubled, actually—and to the A-base budget, which was $82.5 million prior to 2012, the budget added $110 million. It added DTAPP, which is another $80 million over three years. A new addition to IRAP is the credit notes program that was announced in budget 2013, and of course, the concierge, which is another new addition to IRAP, was included in the previous budget. Overall it's $279 million.

● (1555)

Mr. Kennedy Stewart: Thanks.

I'm just thinking about the organization. It's interesting you mentioned the concierge. You're part of the NRC, but through your description here it sounds as though you're almost a stand-alone organization or program in some ways.

I'm wondering about how much you actually interact with other NRC programs and personnel.

Mr. Bogdan Ciobanu: We are one of the four operational divisions of the NRC. There are three R and D divisions in IRAP—life sciences, emerging technologies, and engineering.

The interaction is at different levels. First of all, IRAP has 210 field staff, people who have a very strong understanding of the industrial sectors and the businesses, who provide input to the R and D programs when the programs and projects are being designed, so that they are as close as possible to the needs of the industry. There's a very strong interaction at the early stages of the development of the NRC programs.

There is a strong interaction with our clients who need very specific and deep scientific or engineering knowledge. We bring NRC scientists into our client's shop. They can spend half a day, a day—short interactions. These interactions can develop into longer-term relationships. Actually, we do this type of linkage between small businesses in Canada and the players in the innovation system on a very wide basis. We have in excess of 120 contribution agreements with universities, colleges, and research labs across Canada—provincial, federal, and others—as well as incubators, accelerators, all kinds of sources of expertise in management, marketing, and science. They bring those resources to our clients. This is one of the major contributions that IRAP brings to this innovation network.

Mr. Kennedy Stewart: The reason I asked about the interaction is that you didn't mention it in your presentation. You mentioned universities, research labs, and colleges. I was wondering if that's because of the changes that are happening in the NRC. It's moving away from scientists and researchers and that kind of personnel and moving more towards business personnel. I was wondering if that was affecting your ability, whether now you're looking at outside sources, or are you still able to draw from NRC internal resources?

Mr. Bogdan Ciobanu: We look to the best resource available, whether this resource is within a university, college, government lab or private company, or the NRC. We make sure the company gets, without bias, the best resource available in their region. Some resources are probably too far away from where they are, because we have clients everywhere. Whether they are with the NRC or with another organization, the most important thing is that it is the best for what the company needs.

Mr. Kennedy Stewart: Has the NRC reorganization, which has been fairly massive, affected your program, or has yours been mostly left on its own, besides the influx of money that you mentioned?

Mr. Bogdan Ciobanu: IRAP has grown considerably.

Mr. Kennedy Stewart: Has the style of it changed, though? It seems you have mainly business advisers, your field staff. Is that maintained through this—

Mr. Bogdan Ciobanu: We maintain the same structure that has been considered appropriate and successful to combine financial support with very strong advisory services. The business model of IRAP was kept intact.

Rather than being one among 21 institutes, we're now one division among four operational divisions of the NRC. The market intelligence, the understanding of the business that our field staff can bring to the NRC, is of major importance right now. It's very much valued.

Mr. Kennedy Stewart: Thanks very much.

The Chair: Thank you.

We now go to Mr. Carmichael for seven minutes.

Mr. John Carmichael (Don Valley West, CPC): Thank you, Mr. Chair, and thank you to our witnesses today.

Mr. Cousens and Mr. Kratz, I'm going to ask a couple of questions of the folks at IRAP first, but I do have a couple for you, so I don't want you to think you're out there on your own.

Mr. Ciobanu, as you talked about the barriers to adoption, you talked about the lack of resources, the process and organization, and lack of financial resources. As I understand IRAP...and I'm hoping you can clarify, because I'd like to understand better the relationship between it and DTAPP. When you go into an SME, you take some SMEs that are well established with these barriers. You're in universities dealing with digital hubs and all types of research initiatives, etc., and are able to assist them in their ventures.

How does it actually work? How much of your business is tied to SMEs that are established versus start-ups where you see an opportunity? At what point does DTAPP kick in, and can the two be operating at the same time?

● (1600)

Mr. Bogdan Ciobanu: Absolutely. The traditional IRAP provides support for product development and service development, so innovative new products and services to be developed and commercialized by a company. DTAPP is more specific to bringing into the company digital knowledge and digital technologies, which are very much complementary.

Actually a company can become more competitive by improving its productivity, lowering costs, increasing production, and bringing new and innovative products onto the market.

They are complementary. I don't think they play against each other or in separate fields. They are complementary.

In terms of what they have in common, I have some numbers on the size of our clients. Of our clients, 8% have between one and nine employees; 14% have between 10 and 20 employees; 12% have between 20 and 30 employees; 17% have between 30 and 50 employees; and so on. The majority of our clients with DTAPP are small businesses. We have very few that have more than 200 employees. Those represent just under 10%.

Mr. John Carmichael: I think I understand the purpose as you enter into a relationship with an SME. Are these organizations already commercialized? Are their products commercialized, or do you merely help them to accelerate the process within their organizations?

Mr. Bogdan Ciobanu: There are all kinds.

Mr. John Carmichael: There are all shapes and sizes.

Mr. Bogdan Ciobanu: There are all shapes and sizes at different stages of development. There are very early stage companies that are just starting up. Actually IRAP starts the relationship with a company sometimes even before it incorporates, when it has just one, two, or three founders with ideas, with an understanding of some market needs, who want to build a company around a market need. We help them to establish themselves. Sometimes we work for years before there is a first dollar invested in those companies by providing them with advisory services, linking them with different resources, helping them build an advisory committee, for example, or a board, or by bringing angel investors into the company, helping them structure their team, their business plan, and so on.

A lot of work is done before the first dollar is—

Mr. John Carmichael: I guess functionally they would lack the sophistication to know how to do it themselves, and that could include BDC—

Mr. Bogdan Ciobanu: Exactly, that includes BDC and a lot of other players in the Canadian innovation system. There are companies, as you mentioned, that are established. They have a strong management team. They have a research and development team and plan, but they need some support with the financial part of their business. They want to develop a product that is too risky for their normal way of doing business, so sometimes we convince them to do a little more to be more risk averse, and we help them financially to take this additional risk so that if the project is successful, the rewards will be commensurate with the investment.

Mr. John Carmichael: Thank you.

I'll now switch to Mr. Cousens and Mr. Kratz.

Some of your numbers are alarming, obviously. I look at the growth in the U.S. How would you look at success in Canada relative to that in the U.S.? When you look at the U.S. numbers and the productivity and all of the scale attached to the U.S., how would those numbers translate with regard to where Canada is today?

● (1605)

Mr. John Cousens: Canada is always translated as being a 10% average, from what I see, so that would be a starting point. In my mind, any time I look at a market analysis in my business, I look at Canada as a 10% representation of the U.S. We have the same trappings they do as far as defence and foreign affairs go, so I would obviously see government in that light.

Mr. John Carmichael: In terms of some of your metrics, you've given us this chart on Canada's imperative. How do we factor into that? When I look at it, I take it the 10% has already been factored in or quantified against the rest of the global competitors on a relative basis. Is that correct?

Mr. John Cousens: I would say there's incredible savings and incredible opportunity at hand for Canada.

The Chair: Thank you, Mr. Carmichael.

Now on to Mr. Regan for seven minutes.

Before we do that, Mr. Ciobanu, you let me know that in your first testimony to Mr. Braid you mentioned IRAP but you meant DTAPP.

Is that correct?

Mr. Bogdan Ciobanu: Yes. DTAPP was launched in November 2011.

The Chair: I just want to make sure that's reflected in the blues.

Mr. Regan, go ahead, for seven minutes.

Hon. Geoff Regan (Halifax West, Lib.): Thank you very much, Mr. Chair.

Thanks to the witnesses for coming before us today.

My first question is for Mr. Cousens or Mr. Kratz, whoever wants to answer this.

You talked about the U.K.'s g-cloud model. I've received some e-mails about that, including from John Reid of the Canadian Advanced Technology Alliance, urging Canada to follow the U.K.'s lead on that.

What would be included in a cloud-first policy, as you would see it? Why are we lagging in this area, and what are the consequences?

Mr. John Cousens: I think why we're lagging is that we're traditionally risk averse in Canada. That's one reason. With regard to technology adoption, you've heard plenty of witnesses prior to today say that Canada is not adopting fast enough. It's affecting our productivity. It's impacting our ability to compete in the world, as well. That's just part of who we are in our DNA.

I think the opportunity is the fact that others have already gone there. We can learn from them. They've made mistakes. There is opportunity to learn from their mistakes, turn it into something even better than what they've done, and at the same time stimulate small and medium enterprises. That's the opportunity.

That's probably why you're seeing campaigns from the associations.

Hon. Geoff Regan: If in the U.K. the policy means that businesses have to consider cloud computing strategies before implementing other technologies, how do you regulate that? Is that something the government ought...? How would this work?

Mr. John Cousens: It was the government's mandate for government agencies. They had to consider public cloud first prior to any investment in a new application. If there was a flood in Winnipeg, for instance, which there traditionally is, there would be some kind of a program to hand out aid. It could be financial aid or aid in a number of different ways, and that would get tracked.

In the U.K., they might have a cloud-based application that they would use for the term needed to adjudicate loans or work that funding. When they were done with paying, then they would be done. In other jurisdictions they might acquire systems, integrate them, and then maintain that for years waiting for the next event.

That's a dramatic change. They're able to match an IT requirement with a business requirement for the duration of that government program and then be gone with it. That's what happened in the U.K. From a government standpoint, this is the model they've moved to.

They've created an application store where departments can buy things there first. Just as you would on your iPhone or BlackBerry device, you would acquire that, consume it, and enact a business transaction. What that did was to open the government to small and medium enterprises as their first customer.

Having been a small and medium enterprise and a start-up, and having had IRAP funding in my past life, the last place we would ever go would be to government. We'd never spend that precious amount of little money on trying to sell into a large organization. The barriers to entry were massive from a procurement standpoint. The U.K. removed those barriers and democratized access to that first customer. That was critical.

We did an interview with the deputy g-cloud director two weeks ago, a guy who had five employees a year ago and has 35 now selling into the U.K. government. He's able to take that IP, intellectual property, and resell it in other jurisdictions around the world. That's 35 jobs that didn't exist before. They are software engineers. They are high-quality jobs.

That's the shift. That is the disruptive nature of it, but also the opportunity for business.

● (1610)

Hon. Geoff Regan: We have a handful of cloud service providers in Canada: Canadian Cloud Computing, CloudPath, Radiant, Salesforce.com and so forth.

Are SMEs utilizing these resources? How do these companies rank internationally? Are they big or notable, for example, compared to the cloud service providers in the U.S.? What do you see as the future of these companies?

Mr. John Cousens: The member from Waterloo might not think this way, but ironically, BlackBerry was probably our first cloud computing company. It was a common service going through a common set of data provisions, and that was real innovation. That took that confluence of mobile, social, and cloud all in one, so they really were the first cloud computing company for Canada.

There are medium-sized ones and ones that have been acquired by U.S. providers. It is at a stage where it really needs some stimulation in order to compete. If foreign governments are now opening the doors to help stimulate and grow it, that means we are slightly behind as far as the adoption of it and the growth and investment in those Canadian cloud enterprises are concerned.

There's a lot of them out there, and BlackBerry, ironically, was probably the first cloud computing company.

Hon. Geoff Regan: Thank you.

Mr. Ciobanu, in 2011 the NRC published a report entitled, “Cloud Computing and Creativity: Learning on a Massive Open Online Course”, and another about an open collaboration service framework based upon cloud computing.

Do you think researching cloud computing is or should be a priority?

Mr. Bogdan Ciobanu: I'm sorry, but I'm not a specialist in research on cloud computing.

Hon. Geoff Regan: You're the wrong person to ask, I guess.

Can someone tell me whether NRC is doing research in this area?

Mr. Bogdan Ciobanu: Currently, NRC is not doing research in this area. There are parts of the technologies that are researched within the NRC, especially the emerging technologies part of the NRC, so there is research being done, different components, different technologies, that can evolve into this.

Hon. Geoff Regan: To your knowledge, do SMEs use services like the NRC Publications Archive, or the NRC National Science Library to learn about ICT, to learn about cloud computing, and other topics? What can government do to encourage this to a greater extent?

Mr. Bogdan Ciobanu: One service IRAP is providing to its clients is information on science, technology, intellectual property, market intelligence. This is a service that's provided free of charge to our clients so they can align their R and D projects better with the market needs, with the competition, with existing IP. Sometimes the end supplier of these services is NRC's knowledge management, and of course, there are other suppliers across the world that help us do it. SMEs are more and more open and interested in using information.

The Chair: Thank you very much, Mr. Ciobanu.

Mr. Cousens, go ahead, quickly.

Mr. John Cousens: I can add an example to that for you.

I was at an awards ceremony last Wednesday, the CATA gala. They awarded a company for creating a new human resources management tool to sell in Canada. He created it completely on cloud, meaning he didn't have to buy hardware or software. He developed the application, and now he's going to market. He won that leadership award for doing that. He was able to quickly take his intellectual property and his team.... He didn't have to make capital investments. He was able to quickly innovate and take it to market rapidly. That's why they call it an innovation platform.

If you think of what Netflix is in the United States.... We may or may not use it. You don't see Rogers video stores anymore, do you? I don't go into Blockbuster. Instagram arguably killed Kodak. It was a business model that changed the world. Netflix is purely a cloud-based solution that we all may have used on our TV. It's the same with Apple TV.

These innovators are looking to create these things that are a panacea of opportunity for Canadians to create niche or new solutions, and disrupt the existing status quo, and go out there. So it's a different model.

● (1615)

The Chair: Thank you very much.

Now we're going to our round of five-minute questions and answers.

Madam Gallant, for five minutes.

Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC): Thank you, Mr. Chairman.

Through you, first of all, to Mr. Ciobanu, please give me some examples of DTAPP, successful applications and the types of things they were used for, maybe starting specifically with the forestry industry. Are you familiar with any forest-based companies that have taken advantage of the DTAPP?

Mr. Bogdan Ciobanu: There are some examples here. I cannot provide you with the names of the companies, just the general—

Mrs. Cheryl Gallant: Not the names, just in general what they—

Mr. Bogdan Ciobanu: Generally, what I can tell you is that the most important technologies that have been adopted by clients under DTAPP have been, first of all, enterprise resource management systems. These are software systems that integrate different operations of the company to increase productivity. There are other technologies, such as automation, robotics, automatizing assembly lines or production lines and bringing robots onto the production lines.

Specifically for the forestry industry, 10.1% of the budget went into this industry across Canada.

Mrs. Cheryl Gallant: Is it the same sort of things, the enterprise and the robotics?

Mr. Bogdan Ciobanu: Hundreds of different technologies have been assessed and implemented under those programs, but I'm talking to you in terms of percentage of our budgets.

Mrs. Cheryl Gallant: Without naming the companies, would you be able to provide the committee at a later date with the types of technologies you helped with in the forestry industries?

Mr. Bogdan Ciobanu: Yes, of course, absolutely.

Mrs. Cheryl Gallant: Mr. Cousens, do individual SMEs look for a cloud computing company or would it come as part of a business solution? For instance, if they wanted PayPal on their website, or as part of a software solution, would it automatically be built into something they're already purchasing?

Mr. John Cousens: They can build it in many different ways. There are different elements to what the cloud computing model is and there are more detailed technology discussions, but you can pretty much build whatever you want.

You could build Netflix on a cloud-based model, which has you being able to secure payments for whatever you're about to watch. It is completely cloud-based. So, yes, it can run the gamut of running a business on various elements, including enterprise resource planning software. It is available in the cloud on a pay-per-use basis.

Mrs. Cheryl Gallant: It came as a bit of a surprise that we have Canadian-based cloud companies, because it's not something we hear about. When we're buying an application, a solution or a service that is cloud-based, we're not necessarily told whether it's Canadian-based or U.S.-based.

After the fact if we are told that it is a U.S.-based cloud, then we've got some security issues to deal with. That is something that these unaware SMEs should be asking in advance, but they're unaware of that.

Mr. John Cousens: Yes, and on that, cloud computing is a trust revolution. It's not dissimilar to what banking became. We kept our money under our mattresses and then we gave it to the banks and we had to trust them to keep it secure and not have anyone access it. Then we had to trust them with credit cards and being able to manage that. Cloud computing is also a trust model.

For any kind of detail on how Canada looks at security and privacy in the cloud, I'll defer to Martin Kratz, our chairman of the board. Martin is a lawyer by trade and he knows this particular category cold. It's one of the main reasons I've asked him to participate today. It's a question that is best answered by a legal mind.

Martin.

● (1620)

The Chair: Go ahead, Mr. Kratz.

Mr. Martin Kratz (Chairman of the Board, Canadian Cloud Council): Thank you very much for the opportunity.

In Canada we have a robust legal framework that provides through our private sector privacy laws for the customers who use cloud services to undertake certain privacy and security obligations for the individuals whose personal information they collect.

Through the Canadian Cloud Council we have been providing educational programs across Canada that have been benefiting SMEs on their compliance obligations so they can be aware of best practices around addressing the security obligations that the customers have and as a result, what the large and small vendors of cloud services have.

I'll be happy to answer any further questions you may have.

The Chair: All right, we'll see what happens with the next questioner.

Thank you, Madam Gallant.

The Chair: Now on to Madame LeBlanc.

[*Translation*]

You have five minutes.

Ms. Hélène LeBlanc: Thank you very much.

[*English*]

I'm very happy to have learned a new French word. I really appreciate the fact that you translated your notes, although I will ask my questions in English.

Mr. Cousens and Mr. Kratz, have the government's failure to articulate a cohesive digital economic strategy had an effect on the adoption of cloud technology in Canada for government and SMEs?

Mr. John Cousens: I would say it's one of their roles. We've seen in other jurisdictions that this kind of leadership spurred economic development and got some innovation out of it, so I believe there is a role.

You've talked about some of the other barriers in Canada. There are many other barriers. We do have risk aversion to a lot of things, and it's new. I would liken it to 1995 and the adoption of online banking. There was a lot of skepticism.

Ms. Hélène LeBlanc: Yes.

You have pointed out other examples where it seems that when government takes leadership, all the planets align. Do you see that? Am I correct in saying that businesses, SMEs, especially the ones that face barriers, seem to be aligned in adopting the technology because they see the government using it and they sort of embark on that?

Mr. John Cousens: Government can be everyone's largest customer. The federal government is massive. For a small and medium enterprise to say the federal Government of Canada is a customer of theirs, that opens doors for them everywhere else in the world.

I believe that was some of the vision that some of the other countries saw, that they were able to monetize intellectual property of a cloud provider in their backyard to go out and compete on a global basis. It is important from a first customer standpoint, and it sets that leadership. It also addresses the risk aversion. If government can adopt this and use this in a safe and secure manner, why can't the rest of Canadians?

I met someone last week, the CEO of a large Canadian organization, who said she was afraid to put her credit card in the parking meters in Ottawa. I told her that I would be more afraid handing her my credit card at dinner afterwards, because I didn't know where that card was going.

That's an example of the level of skepticism around digital technology: someone won't use a credit card for a parking meter. It's pervasive.

Ms. Hélène LeBlanc: Yes.

You know, the spectrum auction is in the air. Actually, I had proposed a study on that, on spectrum licences and stuff like that.

In terms of the recent announcement of the postponement yet again of the spectrum auction to January 2014, what consequences do you see with regard to cloud computing or digital adoption by SMEs? We're talking about the 700 megahertz, which people call the "beachfront property" of spectrum.

Mr. John Cousens: I think it's one of the barriers. If you look in other jurisdictions around the world, access to this is cheap. I could use my enterprise resource planning software on this device, but I'd probably be less likely to do it if my staff came to me and said, "You're going to get a $500-a-month bill for doing it. Let's do it the old-fashioned way: wait until you get home, log into your computer, and do the promotion at that point in time."

It is an absolute barrier to entry to have limited access to price competitive ability. A limiting factor on one element of cloud computing is the high cost of that, because there is somewhat limited competition. I would agree that this would be an element of it.

● (1625)

Ms. Hélène LeBlanc: We keep pushing back the date of that auction. What are the consequences of the adoption, and actually of raising the bar? You showed some stark statistics on the place of Canada and how far behind we are getting. Do you see it getting worse or better?

People are moving fast in other countries in the SME adoption of technology. Do you see consequences to that postponement of the spectrum auction?

Mr. John Cousens: It just pervades the status quo. We've become used to it. We all examine our cellular phone bills, our various types of access to Internet on a monthly basis, and we sit there and try to rationalize how we can do that.

I think Canadians have just become used to it.

Ms. Hélène LeBlanc: Canada is a very large country with big cities but also a lot of sparsely populated regions. How could cloud computing help the small to medium-sized businesses that are located in faraway regions?

Mr. John Cousens: As long as you have access to Internet, which....

Ms. Hélène LeBlanc: Yes, and that's the thing, too.

Mr. John Cousens: Perhaps there's a national broadband strategy to come at the next session.

Look at the example of Angry Birds. That was created by a 14-year-old in his basement because he had access to the Internet and he had an idea.

That is the opportunity that cloud represents. It's not exclusive to a university grad. It's not exclusive to an organization that has billions of dollars to spend on IT development. It democratizes information technology and the ability to develop and create ideas for businesses like that.

The Chair: Thank you very much, Mr. Cousens and Madame LeBlanc.

Now we'll go to Mr. Warawa for five minutes.

Mr. Mark Warawa (Langley, CPC): I was just going to launch the new game called Angry Politicians.

Voices: Oh, oh!

Hon. Geoff Regan: That happened last night.

Mr. Mark Warawa: I want to focus my questioning on business and the limited level of participation in Canada from SMEs compared to the United States, for example, and on the changing business models.

You highlighted Netflix. Who would have thought five or six years ago that your local video rental places would virtually be gone? It changed very quickly. Yet in the vast majority of Canadian businesses, we see a resistance to be involved in this changing model of business. What are those barriers?

I want to focus on the report, Mr. Ciobanu. You've said in your report that 731 firms have been participating in the DTAPP. Over 500 of them have received funding, so that's most of the 731, about two-thirds. As of today, 118 have completed the digital adoption projects, so they've received some of their funding. Is there additional funding to come as they complete that adoption? Also, because of the DTAPP, you say that 87% of these firms are more likely to undertake another step in advancing.

My focus is on expanding their market. They have an old model that they're using, and now they have something that could be marketed throughout the world using digital technology. What are those barriers? You've highlighted the lack of experience with this technology, because it takes a risk to move on to this whole new way of doing business. Where is that experience?

You're providing some of that experience due to your programs, but where is the experience we need so that business gets buy-in? Is it through the Chamber of Commerce? Is it through the National Research Council programs? How do we get buy-in from SMEs?

● (1630)

Mr. Bogdan Ciobanu: Actually, if you allow me a clarification, we have reached in excess of 2,500 companies so far through different channels, through our partners: the colleges, the Canadian Manufacturers & Exporters association, and the other partners that we have. Through different sessions, workshops, information sessions, and exchanges of best practices, many more companies are aware of digital technologies, of the benefits for them, and of the way they can assess their needs and acquire technology.

For the 730-plus companies, we have started working on specific, concrete projects. Out of those, about 511, I think, have received funding and have started a project, and 20% of them, or 118, have finalized and implemented the technologies and are benefiting from the implementation.

I think the best way a company learns is from examples from their clients, their competitors, and their neighbours across the street who own a similar business. When there is a success, they can learn, and this is part of this DTAPP pilot project: the learning. First it was the awareness. We have invested a lot of time, resources, and expertise in making as many companies as possible aware of this. Now, when the results start to come, we will increase the learning and the sharing of the best experiences and the best practices that are learned through those processes. This is a separate part of the DTAPP, and it's a very important one, because this will help us improve it, or renew it, or provide different services to firms.

My personal experience is that they learn from each other. What IRAP can do is bring them companies that have succeeded and bring them experts—consultants, engineers, scientists—as close as possible to their operations.

The Chair: Thank you very much.

We'll move on to the next questioner now.

Mr. Stewart for five minutes.

Mr. Kennedy Stewart: Thank you, Mr. Chair.

I want to move over to Mr. Cousens. In the World Economic Forum data that you gave us, to follow on Madam LeBlanc's questions, you highlight that in government procurement of advanced technology products we're ranked 47th in the world. Just below that I see “Local supplier quality”, where we're ninth in the world.

I'll let you get to the slide with the heading “Canada's Imperative”. We have 47th in terms of procurement and then ninth in terms of supply quality. So other countries are supposed to be higher than us but actually have a lower quality of things to buy.

Do you have any thoughts about why that might be occurring?

Mr. John Cousens: That's interesting. I hadn't looked at the divergence between the two numbers.

Canadians are innovative. There's a lot of great things that have come out of this country in the technology space. The challenge is that first customer. Having been there and taken my IRAP funding, we spent that not on responding to an 800-page government RFP, but we directly worked with another country, New Zealand. That was our first customer and we did it over the phone. The barrier to entry was low. That was a big thing for us at that time.

The other piece of that is small and medium enterprises need credibility. Credibility comes with a large brand name. There was a company in Canada that was acquired a couple of years ago. Their first customer was Facebook. That really helped them. A big customer gives credibility to small and medium enterprises. Government opportunity represents that for this. What that does is it gives somebody the chance to say that the Government of Canada, which has hundreds of thousands of employees, is their customer. It validates them. I think you heard that in the Jenkins report. I think you've heard that from other speakers who have come here before. They can then go to other jurisdictions around the world and say that they have passed that test. That is a big barrier and it is one of the themes of what we've presented to you today.

● (1635)

Mr. Kennedy Stewart: It's interesting because we've heard from the Jenkins report and before that procurement is a big thing that other countries have cottoned on to and really pursued with a lot of vigour. But again, it troubles me that we seem to have more than ample opportunity and we're not doing it here. It's part of not having perhaps an overall strategy on how to deal with this. Maybe we don't notice these things until they come to committee. I hope we would notice it beforehand but it is good to make the point.

The other thing I was looking at is the availability of scientists and engineers. It looks like we're sixth in the world, too. There would seem to be an ample supply of talent and an ample supply of suppliers. Yet this seems to be one of the missing links, that is, the government perhaps is not procuring the way it should.

You've given us the 2012 rankings. Do you know if it's increasing or decreasing? Are we getting better at this or worse at this?

Mr. John Cousens: I haven't seen anything more recent than that, except for the e-government report that came out in March of this year. Those are the two reference points that I saw.

I would respond in a couple of different ways.

The overall climate that we described among Canadian enterprises and individuals is risk aversion and for the government it is the same. From an adoption aspect, it's very easy to avoid risk because they don't want to end up on the news or the front page of the *Globe and Mail* if they did something risky. There is a co-dependent relationship between our private sector enterprises and government. We're both fairly risk averse about adopting new things because of what if it fails. There's very much a fail fast mentality in some of these other nations; that is, fail fast, I'm not going to get punished so I can move on and be successful. It is the new model on how people are developing their technology ideas. They are encouraged to fail very fast and come out with the next one and make it better. It's a cultural change not just in government but in industry to do that. It's fail fast, learn from it, and then rapidly accelerate and come back out again doing something else. It's risk aversion in both parties.

Mr. Kennedy Stewart: It's interesting how in the U.K. they have a national audit office that basically establishes measures and targets for various departments and the way they insulate themselves using this. They say, “Here is something we're adopting; we're going to measure it a year out, and if we don't hit it we'll take it out.” It's quite public and transparent. It's not all secretive. It removes the public risk for politicians if they go in stating goals and objectives and they are not reached. Actually, it's kind of boring. There's less to talk about in the House of Commons when you say, “Here's the target; we didn't meet it, so we're trying something else.” I always thought that was impressive.

I wanted to move to a different question about the value of basic or scientific research. We have been talking a lot about the far end of the chain with commercialization, but what about the front end of the chain? What are your thoughts about the value and perhaps how we should be supporting that? Perhaps that's a question that can be open to all members of the panel.

The Chair: No, we can take just one brief comment and then if somebody wants to respond to it later, they can.

Mr. Bogdan Ciobanu: I have a general comment.

Of course there is value in both basic research and the application of this research to commercialization. There is a continuum.

I think this is the most important thing for our economy, for our innovation economy—to instill this innovation mentality along the whole chain of the innovation process from the basic research to the commercial utilization of this research for commercial applications.

The Chair: Thank you very much.

Madam Gallant, go ahead, please, for five minutes.

Mrs. Cheryl Gallant: Thank you.

I'm going to go back to cloud computing. For government everything is about security. In terms of backup and redundancies, what sort of pieces are put into place to protect against either the system going down, or a part of it going down, or even the electricity going off?

Mr. John Cousens: I'll respond in a couple of ways, and I'll ask Martin to chime in as well.

Most modern providers of cloud computing are no different from traditional providers of outsourcing. They have to have a service level agreement that has to meet a certain uptime and they build out their capacity to meet that. Those are terms and conditions that are always negotiable with any of these providers out there, whether they be Canadian, European, or American. That is built in. Security is usually built in.

I would analyze that by saying that the brightest minds in the world in information technology are developing this. When we went to online banking, smart minds made it secure, so secure that I'll transfer money from chequing to savings on my iPhone. That problem can be solved. Innovation will come from these challenges.

I'll ask Martin to address the second piece.

There are already Canadian innovators in Canada solving the security problem for the cloud. Out of the MaRS program, funded by the Government of Ontario, there is a Canadian company that is specifically addressing making the cloud more secure. It's happening in our backyard. They looked at the global trends and they invested in it. The Ontario government invested in it and they're becoming the leader. Those challenges actually create the opportunity for innovation.

Martin, do you have anything to add to that?

● (1640)

Mr. Martin Kratz: Yes. Typically, cloud service providers seek to meet international standards of security and privacy compliance that apply to the legal regime in which they operate. Those would address issues such as in-transit encryption of communications to and from the data centre and the encryption of data while at rest or while stored. As an initial safeguard and for transparency and trust building, there are regular audits to verify that the cloud service provider is meeting the applicable requirements.

There are best practices being used. Our association is helping to describe and communicate those, and those are available to governments or the private sector in order to manage the risks and utilize the benefits available for cloud computing.

Mrs. Cheryl Gallant: Are there benefits to cloud computing in terms of it being more secure against hacking?

Mr. John Cousens: We can provide some studies which state that they now believe the cloud can be more secure than the status quo.

Mrs. Cheryl Gallant: What about tracing leaks? If somebody leaks a document, is there a way to trace what station or which user leaked a document that was still embargoed?

The Chair: Go ahead, Mr. Kratz.

Mr. Martin Kratz: Thank you.

I was just going to add a comment that for SMEs particularly, they usually don't have a lot of IT infrastructure or IT security staff. They have a very lean small team. The advantage for them in using cloud service providers is that they get the benefits of huge scale in terms of compliance with national and international standards for security. As a result, for those organizations there can be a dramatic improvement in security in terms of their IT performance.

Mr. John Cousens: To add to that, there is a point to note that we can provide to the committee afterwards.

About two months ago the CIA announced that they were awarding a contract to Amazon Web Services for $600 million to build their cloud. Even that organization which has the incredible resources and numbers of scientists that it has at hand, the CIA were looking to the commercial sector to figure out how to build something secure for them. That was a dramatic shift. That was a game changer as far as validating the industry and the business model are concerned.

There is stuff like that happening out there. That's part of what we want to encourage the committee to drive further investigation into, because there are opportunities.

Mrs. Cheryl Gallant: Okay.

I have a question on the U.K. government app store. You mentioned that an SME could sell an app to the government and that the government would then charge departments a portion of the fee. Or would they charge the different departments the full fee for the app? I'm trying to figure out where the savings would come from for the government in terms of it holding the app.

Mr. John Cousens: From a U.K. perspective, any kind of modernization.... If they had a business requirement from a department, and that business requirement was to manage a grants program for a term of one year, they would look at that app store and see five providers, let's say, and one with the functionality that is most aligned with their need, in that it's mobile and it works on a mobile device—because this is in the regions—and they would then....

The app store is merely a brokerage for procurement purposes with the private sector firm, which would then provide that software as a service, in that particular case, to that agency for that term. The agency would put their business requirements in there. They would use it for that term. They would pay per user per month for operating costs and would have no capital expenditures.

That's where the savings came in. That was the fast, rapid ability to deploy that they were looking at. That's where they got those savings in efficiencies, but also the time to market and the predictability in IT expenditures.

● (1645)

The Chair: Thank you very much.

We'll now go on to Madam LeBlanc for five minutes.

Ms. Hélène LeBlanc: I will just continue with cloud computing, because when I finished earlier, you were mentioning what it needs. It needs the Internet. Do you need special high-speed Internet access? Are we looking at three things, those being access, affordability, and reliability? What type of Internet are we looking at when we are doing cloud computing or if we want to do business with cloud computing?

Mr. John Cousens: Most businesses can't live without Internet of some sort. Most businesses in Canada have that access. With Internet access can come access to those cloud-based solutions, so if you have that, you are doing quite well.

The other challenge is in certain regions. If you go out into northern regions, the challenge is in the ability to access that bandwidth. In certain regions in Canada, we just don't have that yet, so that is a barrier. As well, it is very, very expensive in some of the northern regions of the country.

Ms. Hélène LeBlanc: Okay. You were mentioning access to the Internet wherever you are in Canada. Does it have an effect or is there a consequence of Canada's lagging as far as innovation goes? You were mentioning how access to the Internet and the cloud computing business drives innovation. Does it have an effect?

Mr. John Cousens: Yes, absolutely.

Look at Australia. They have a national broadband strategy. It's not cheap, but neither was the moon shot. They're doing it because they want to enable all those diverse communities. They have a very broad country as well, and if you get that into the hands of the person who will be the next 14-year-old who creates Angry Birds....

It is an opportunity to have that access, because it does democratize the ability to create ideas and put them out in that space.

[*Translation*]

That is what we call cloud computing.

Ms. Hélène LeBlanc: Right.

[*English*]

The fact, too, is that we want all regions of Canada to participate in the digital economy. I'm coming back to the spectrum auction. Have you followed the different rules? Do you feel the rules that are in place right now for the spectrum auction, the 700 megahertz, will help to build it up, roll it out, and give access to the different regions of Canada? Do you feel that there's provision in the rules for making sure that all regions of Canada can benefit from access to the Internet and affordability and reliability?

Mr. John Cousens: Competition is good. Competition is very good. As I said earlier, if you have an employee who wants to use a cloud-based solution but the cost per month on his mobile device is well over $1,000 because of the usage costs, I'm going to tell that employee that he's not using it, and to use it through a different channel. That is a barrier. That prevents adoption, and that prevents innovation, so it is one of those things. Competition would eventually drive down some of those costs.

Ms. Hélène LeBlanc: Is there an incentive, do you think, in the role for the company, the Internet wireless company, to build in regions that are not as lucrative, maybe, as the urban areas?

Mr. John Cousens: Spectrum is not necessarily something I've been following in detail.

Ms. Hélène LeBlanc: I was going to ask if you think the industry committee should have a study to see if those rules will provide access to Internet in all regions of Canada and drive innovation.

Mr. John Cousens: They're a key element.

● (1650)

Ms. Hélène LeBlanc: Maybe it would be time for me to talk about my motion.

The Chair: Not yet, Madam.

Ms. Hélène LeBlanc: It's out in the open, so why not?

The Chair: We'll have a few more questioners and then we'll get to that.

Mr. Peter Braid: That would be most out of character for you to do that, to be impolite.

The Chair: We're going to go to four minutes now, so we can get Mr. Regan in.

Mr. Braid, go ahead for four minutes.

Mr. Peter Braid: I want to continue the discussion around cloud computing and then come back to DTAPP if I still have time.

Mr. Cousens, I noticed that your smart phone was from a fruit company and not from BlackBerry, but I won't mention that.

With respect to the Canadian risk aversion we've been talking about, which can be both a good thing and a not-so-good thing depending on the context, if the risk aversion in Canada with respect to cloud computing relates primarily to concerns regarding security or privacy, and I know we've touched on that, are you satisfied that you and Mr. Kratz fully addressed that so far today or would you like to address that issue again and fully?

Mr. John Cousens: I would say if we looked at what the U.K. has just done within the legal framework, the privacy and data protection framework of the EU, there must be some incredible learning to take away from there. If they can do it, I'm not sure why Canada can't do it, because they have a framework that is very robust compared to some of the other nations that are doing this.

Martin.

Mr. Martin Kratz: I would agree with those comments. I think we have the legal framework in place in Canada to move forward, to allocate responsibilities, and to motivate good practices. As well, we have reputable vendors able to respond to customers' needs and to address these responsibilities.

Mr. Peter Braid: Great.

You've mentioned the U.K., and in your presentation you talked about the status of cloud computing in the U.S., Australia, and New Zealand. Any government with an advanced economy is equally concerned about privacy and security. What have these countries done that we haven't done to overcome this issue or this obstacle?

Mr. John Cousens: Martin hosted a panel at our last conference in Banff in March. It was a panel of his peers, mostly lawyers who know this issue to a *t*. It was fact based. It was unemotional. I found it interesting, but some were a little bit bored by it. It was a practical discussion. It drove out and got to the facts. It removed emotion and parked it at the door. I thought it was one of the best discussions on how to address this issue.

I'll put it back to Martin, and he can summarize his findings, because he assembled the panel of experts to have that dialogue regarding the barriers for Canada.

Mr. Martin Kratz: I would suggest the barrier isn't a legal barrier. It isn't in the nature of security systems. It isn't in the nature of our privacy regime. It's in the less enthusiastic or risk-averse nature of many of our companies that tend not to want to be the first to try something new, but rather want to wait until something is well established. That's the difficulty I would suggest for Canada. It's not in the technology. As you heard from Mr. Cousens, we have Canadian companies developing and leading innovation in the security field. We have leading suppliers of wireless products who have very secure networks that are able to support mobile cloud applications. It's a question of showing leadership.

I would reinforce that I think the premise of Mr. Cousens' presentation is really the benefit that we see out of the U.K. in the g-cloud initiative. What's being proposed for Canada is to have the government show leadership by becoming a consumer of cloud-based services and thereby helping the small and medium-sized enterprises to appreciate that these risks are manageable and that they can be addressed in a very regularized way.

The Chair: Thank you very much, Mr. Kratz and Mr. Braid.

Now to Mr. Carmichael for four minutes.

Mr. John Carmichael: Thank you, Mr. Chair.

I'd like to follow up on Ms. Gallant's and Mr. Braid's questions.

Mr. Kratz, you talk about our society as being risk averse. I understand that. As Canadians, we're all very conservative in our thinking, and I use that term in a liberal way.

In another study that was done not too long ago we talked about data warehouses, aggregators, and that most of them are located in the U.S., as an example. One of the concerns we heard and that I came away with.... Today, in listening to the CSPs, and as you talk about it, I think it goes beyond risk aversion. I think we're in a litigious society. We have concerns about that data. I, as an SME, am storing my customers' data. That customer data is being warehoused somewhere in the U.S., perhaps, through a CSP. How secure is it?

I understand your point on the risk aversion, but as a small business.... Certainly, when you start talking to government about becoming a major user of the product, how secure is it? How much assurance can we have that we're going to be able to preserve the privacy of that data?

● (1655)

Mr. Martin Kratz: Thank you for that question.

I think to answer the question it helps to look fundamentally at what cloud computing is. It's basically a way to offer a flexible, elastic service on a utility basis. It's a standardized service provided to many customers. Those customers are demanding high levels of accountability on issues such as data protection, including privacy legal obligations as well as security obligations.

When there is a failure or breach, we read about it in the papers. There's tremendous motivation by this industry to get this right. The issue is to look at who the cloud vendors are, to look at their meeting of internationally accepted common standards for security and privacy protection, and to hold them to account on that. One of those mechanisms is to have an audit mechanism so that the customer, the SME or the government customer, is able to monitor proper care and handling of data, including personal information.

Mr. John Carmichael: I hear you.

Mr. John Cousens: The Ontario government has implemented a program, privacy by design. It's out of the office of the Information and Privacy Commissioner of Ontario, Ann Cavoukian. It walks through a fact-based process that allows both government and agencies that want to use cloud computing.... It says, “Here are the regulatory requirements. Report on them.”

Many have gone through this within the Ontario government and have come out the other end saying they are able to use some of these services that are available.

Mr. John Carmichael: Do I still have a bit of time?

The Chair: You have about 30 seconds.

Mr. John Carmichael: In that case, has the Ontario government mandated that the data warehousing or the storage of that data for PIPEDA and for all the other security mechanisms we require be in Canada?

Mr. Martin Kratz: I'll speak to that.

The Ontario government has not mandated that the data be in Canada. Rather, it looks to a due diligence process around the quality of the service providers and holds them to account to ensure adequate control and security for the protection of the data.

Mr. John Carmichael: The only concern I have is that's only as good as the first breach.

The Chair: That's the last word.

Mr. Regan, for four minutes, please.

Hon. Geoff Regan: Thank you, Mr. Chairman.

Mr. Cousens, you talked about how the trend these days is toward social, mobile, and cloud. The CEO of BlackBerry, Mr. Heins, has been talking about the future of mobile computing here and globally. He believes that "...our private sector players, large and small, have to lead the way to the mobile computing revolution", especially in terms of innovation and R and D.

Do you think that large and small organizations, or companies in particular, have an equal ability, opportunity, and responsibility to lead in this area? What should the federal government's role be?

Mr. John Cousens: Once again, I think we need to be adopters of it. At a government level, we need to be consuming it. A BlackBerry, iPad, or any of these devices is not merely there to e-mail and play solitaire. It's a device that you can run a business on, and this is what truly innovative companies are doing. So, for the government to be a model leader.... We have innovation coming in different segments of this marketplace throughout Canada in social, in mobile, and in cloud. If the government becomes an adopter and uses this well, I think you'll see that the small and medium enterprise community will also embrace it.

● (1700)

Hon. Geoff Regan: Michael Geist was here not too long ago and mentioned Canada's lack of a comprehensive digital strategy. He saw that as a failing on the part of the government. South Korea has developed a uKorea initiative as its own aggressive industrial policy. Also, India has a national e-governance plan. What do you think we can learn from countries like these and their strategies? What is the government—or is Canada's government causing the country to fall behind in these areas, in the digital world?

Mr. John Cousens: The confluence of those technologies, right now, as we've talked about, is driving economies and connecting people. If you can have nations fall because of collaboration with social media...the power of it is immense. Not to recognize that and the benefit of that within the context of operating a business is a barrier for Canadians to adopt new technology and also compete. Other nations are driving that out, that ability to collaborate new and different ways at a corporate level. Wherever we are, it is a globally connected world. Once you touch the Internet, you're going through many different countries.

Data at rest versus data in motion is a very different thing. If you have a laptop and you travel to the U.S. and you're doing e-mail, your data is going all over the place. It is a reality. Without a strong message from this country to not look at what's happened in the background here in Ottawa, where I've grown up, and to look at the tech and where that's disappeared to, I think we deserve to be right at the front of that leadership, and we need that from the top down. We also need a decision on a policy that will drive us to embracing these technologies. The government needs to be the adopter of that, as well as an example.

Hon. Geoff Regan: Are you thinking of Nortel when you talk about...? You're just smiling. You're not going to answer that question, I think. All right.

Thank you, Mr. Chair.

The Chair: Thank you very much, Mr. Regan.

On to Madam LeBlanc, for four minutes.

Ms. Hélène LeBlanc: Thank you very much.

It's very exciting that we are talking about things that are actually in the news. I think it follows nicely on the e-commerce study we did. We did the IP. We talked a lot about innovation and things like that. That's why I'm proposing:

> That the Standing Committee on Industry, Science and Technology undertake a two-day study of the rules governing spectrum allocation, the transfer of spectrum licences, unused spectrum, and their effect on competition in the wireless market, in anticipation of the 700Mhz spectrum auction, and that the committee report back to the House.

I am asking for unanimous consent to discuss this motion in public.

The Chair: Mr. Braid.

Mr. Peter Braid: Thank you, Mr. Chair.

I find this most unfortunate. It's five o'clock. We had agreed at the outset, when the agenda was developed, that we would deal with committee business 15 minutes from now, at 5:15 p.m., when this matter was scheduled to be discussed. It's unfortunate that the NDP isn't concerned about the adoption of digital technology among SMEs, because we still have 15 minutes dedicated to that, and I and Madam Gallant still had a round of questions we were going to pursue.

Given that committee business in this committee, as in every other committee on the Hill, was scheduled to be dealt with in camera, and in this case in 15 minutes, I will move that we go in camera to discuss this matter.

The Chair: It's a dilatory motion.

Mr. Masse, there has been a motion to go in camera.

An hon. member: I would ask for a recorded vote, please.

(Motion agreed to: yeas 6; nays 5)

The Chair: Witnesses, thank you very much for your information. We greatly appreciate it.

[*Proceedings continue in camera*]