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**EVIDENCE**

**Tuesday, March 19, 2013**

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**Chair**

**Mr. David Sweet**



## Standing Committee on Industry, Science and Technology

Tuesday, March 19, 2013

• (1530)

[Translation]

**The Chair (Mr. David Sweet (Ancaster—Dundas—Flamborough—Westdale, CPC)):** Good afternoon everyone.

[English]

Welcome to the 61st meeting of the Standing Committee on Industry, Science and Technology regarding a study on broadband and Internet access across Canada. We have the Department of Industry before us for the first hour. The second hour, colleagues, will be with the Federation of Canadian Municipalities. We'll shorten that second one to 45 minutes so we can discuss a path forward, considering the changes that have happened due to the budget this week.

Also, our witnesses before us have asked for a little bit of extended time for the presentations, which they feel will be much more fulsome for our information and for our capability to be able to ask good questions.

We have Alain Beaudoin, who is the acting assistant deputy minister of spectrum information technologies and telecommunications. We also have Director General Chris Padfield from the digital policy branch, and Director General Pamela Miller of the telecommunications policy branch.

I believe it's you, Monsieur Beaudoin, who's going to be giving the opening remarks. After you're done we'll go to the alternating questions.

Please proceed.

[Translation]

**Mr. Alain Beaudoin (Acting Assistant Deputy Minister, Spectrum, Information Technologies and Telecommunications, Department of Industry):** Thank you very much, Mr. Chair.

Your committee is undertaking a study on broadband and Internet access in Canada. We would like to take this opportunity to provide the committee with an overview of the role of the Internet and broadband in spurring economic growth.

[English]

First let me clarify, for the purpose of today's presentation, that the term "broadband" commonly refers to high-speed Internet access. It can be simply defined as a fast connection to the Internet that is always on. Broadband service provides higher speed of data transmission and allows more content to be carried through the transmission pipeline. For example, it provides access to various

Internet services, like streaming video, voice-over IP, and interactive services.

Today we would like to focus on three important ways in which the Internet and broadband contribute to the economy. First, look at how companies invest in digital technologies that help them innovate, increase productivity, and open new markets. Second, look at how the ICT sector develops and sells innovative products and services that both support and leverage broadband and Internet development. Finally, we will touch on the economic benefits that arise from investing in the networks themselves.

Digital technologies can be classified as general purpose technologies, and they are transforming the way companies do business. However, it is very difficult to predict where these transformations will lead to in the future. Who would have predicted how transformative and innovative the smart phone has been in recent years? It is equally challenging to predict where it will bring us in the future. We are not here to speculate today. But the one certainty is that there will be continuous change driven by exponential growth in processing speeds, memory capacity, sensors, and so on. That growth is going to create even more disruptive products and services, which in return will continue to change how businesses operate and help them become more innovative and competitive.

Many of these new products and services are already having a significant impact. Let me highlight two on this slide.

First, faster wireless speeds and the increasing prevalence of cloud computing are giving firms the ability to access and share large amounts of data across their entire organization from any location around the world. This in turn not only helps these firms be more efficient, but it allows more innovation. Second, machine to machine communications, which are only really just starting to emerge, allow for a greater array of remote monitoring and sensing that have lots of applications in almost every sector of the economy. Ericsson, for example, estimates that there will be 50 billion devices of all sorts connected to one another via the Internet by 2020. This, in essence, defines what some refer to as the "Internet of things". It will not only spur new technologies and applications, but also new markets that are difficult to fathom today.

Canadian companies are increasingly investing in these technologies. In 2012, Canadian investment in ICT was \$33.7 billion in computers, software, and communications equipment. Those figures do not capture the other substantial investments companies are making in products that already have digital technology embedded in them. New services like cloud computing and software as a service—precisely because they are services and not investments—also do not get captured in these figures, but increasingly companies are using these services. There are many examples across the country of leading firms leveraging these products and services to great effect. Overall, there is an opportunity for the private sector to do more to exploit these technologies. For example, when we compare our ICT investment to the U.S., Canadian firms overall have been slower to invest, and invest only 58% of what U.S. companies do in ICT.

Let's turn now to slide 6.

• (1535)

[*Translation*]

That brings us to our second point, the ICT sector.

The overall ICT market is expected to grow by 4.5% per year over the next 4 years. Now we could spend a lot of time looking at numbers for the ICT sector. But, given the time we have, let me emphasize a few points.

Although this growth rate might seem relatively modest for the ICT sector overall, specific sub-sectors are growing much faster. For example, smartphone shipments increased by almost 400% in the last 4 years and are expected to continue to grow significantly in coming years.

[*English*]

As the market for tablets like the iPad was almost non-existent in 2010, we can expect that ICT companies will continue to develop products and services we never thought or dreamed about.

My last point is that a lot of future growth will occur in emerging economies, while growth in traditional markets like the United States and the European Union, while still robust, will be slower. As such, Canadian ICT companies will need to diversify their exports and move increasingly toward these new markets in order to grow.

We turn to slide 7.

This is the third point. Broadband networks are the core of realizing the benefits of broadband. Canadians have access to broadband over a variety of technologies, and these networks allow Canadians to engage in the digital economy, facilitating the use of voice messaging, Internet, and data applications, as I mentioned earlier. The digitization and growth in broadband speeds are leading to convergence, the expectation that online services are accessible at any time, anywhere, and on any device.

We turn to slide 8.

[*Translation*]

The tremendous growth of the Internet over the past decade and the rise of mobile within the past several years has led to an exponential increase in global online traffic.

The Canadian marketplace is no different.

In 2016, global Internet traffic is forecasted to grow to nearly 4 times the level it was in 2011. It is anticipated that mobile network growth will be 14 times higher during that period.

[*English*]

We turn to slide 9.

The good news is that Canadian industry is pouring significant amounts of capital back into its networks to meet this growing demand. Investments in Canada were \$9.4 billion in 2011, up from \$8.4 billion in 2010. Canadian capital intensity, which is a measure of the ratio of telecom capital investments to telecom revenues, was 22% in 2011. These investment levels fared very well internationally, and if you look at the graph here, Canada is ahead of peer nations such as the U.S., Japan, and the U.K. in terms of its capital intensity. According to the OECD, we've also been above the OECD average since 2005.

Let's turn to slide 10.

So the billions invested annually by Canadian telecom carriers is resulting in higher-speed broadband coverage. Canada has near ubiquitous coverage of broadband and mobile networks, which are available to 99% of Canadians. Network providers are also rapidly deploying what we call next-generation networks to meet growing demand and the needs of advanced applications. For instance, wired 50-megabit-per-second networks are available to over 75% of Canadian households, up from 30% in 2009. Advanced mobile LTE networks, or long-term evolution, known as 4G as well, were available to 45% of the population at the end of 2011 and reached two-thirds coverage at the end of 2012.

We turn to slide 11.

[*Translation*]

There is no question that in the years ahead, demand for broadband and mobile technologies will continue to grow. We anticipate that the private sector will meet the challenge of the next wave of broadband-enabled applications by continuing to do what it does best: invest and innovate.

We foresee wired providers continuing to deploy fibre deeper into their networks, providing users with higher speeds. Wireless carriers are anticipated to continue to upgrade their existing mobile networks to the advanced mobile LTE platform, which offers significant improvements in speed and capabilities over previous networks.

[*English*]

In summary, Mr. Chair—and this is the last slide—digital technologies will continue to evolve at an exponential rate and change the way we do business and live.

• (1540)

As previously mentioned, in some cases we are only beginning to see the potential and changes that are resulting through the development and use of these technologies. As this growth continues, Canadian companies will be presented with even more opportunities to innovate, be competitive, and expand globally.

Thank you very much for the opportunity to come before the committee today. Before my colleagues and I take your questions, I would like to mention that there is an additional slide in the annex that shows a Canada-U.S. comparison of broadband coverage and speed.

Merci beaucoup.

**The Chair:** Thank you, Monsieur Beaudoin.

Now we'll move on to questions from members. We'll begin with the Conservative Party, Mr. Lake, for seven minutes.

**Hon. Mike Lake (Edmonton—Mill Woods—Beaumont, CPC):** Thank you, Mr. Chair.

Thank you to the witnesses for the presentation.

It's a little bit like drinking out of a fire hydrant. There's a lot of information there in terms of taking it all in.

I want to come back to where you started, with the definition of broadband. When we talk about broadband, what exactly are we talking about? Canadians who might be listening to this broadcast—I'm sure there are many millions of them—would be listening in from a whole bunch of different levels of understanding. If you were to explain broadband, what uses of technology would fall under that category versus other categories? What other categories would there be there?

**Ms. Pamela Miller (Director General, Telecommunications Policy Branch, Department of Industry):** I can respond to that.

In the past, broadband was mostly delivered over wired networks. That would be telephone networks and cable networks. What we're seeing now, with rapid advances in technology, is that we not only have significant upgrades through the telco and cable networks with fibre upgrading, but we see fibre to the node that is bringing significantly higher speeds. We also see with mobile broadband that over wireless devices it's possible to approach the same high speeds.

We also see advances in satellite technology. There are high-speed satellites that are coming online now. In the past, satellites were considered to be a lower speed, but now, with the high-speed satellites, they are again reaching up to 5 to 10 megabits in terms of speed. There are also technologies known as fixed wireless that are particularly well suited to reaching rural areas.

Through all of these different types of technologies, we see considerable advances in innovation and lots of choices in terms of service offerings, and we do see considerable advances in speeds. As was noted in the presentation, in Canada we now have 75% coverage at 50 megabits. This is due to the advances in fibre to the node, and also with LTE, which is a long-term evolution technology from mobile, we are seeing very high speeds that can be delivered through mobile devices. So you will see that there's a variety of technologies that can deliver broadband.

**Hon. Mike Lake:** What is the threshold where something would be considered broadband versus not broadband? Is it just defined specifically based on speed?

Alain talked about high-speed access and then “always on”. Those were the two things that you used to describe that. What would be the definition?

**Ms. Pamela Miller:** Usually we would define broadband by the speed tiers, and we would start with 1.5 megabits. That's what we would consider the minimum, and then it would go up from there into what you consider next-generation networks. With a next-generation network you'd be looking at 25 to 50 megabits and beyond.

What it basically means is that you could do your applications a lot faster, and in a household setting, you could do multiple applications at the same time. I think the “always on” is a component where if you have the types of network availability, for example, with your mobile device, you expect it to be readily available and accessible. In general, the definition of broadband, as I said, usually goes by the speed of the technology.

**Hon. Mike Lake:** So just to clarify, when you say 99% of Canadians have access to broadband coverage, would you say that 99% have access to 1.5 megabits?

• (1545)

**Ms. Pamela Miller:** That's right.

**Hon. Mike Lake:** Okay.

How does the wireless spectrum auction announced and discussed in the last couple of weeks fit into the mix in terms of availability?

**Ms. Pamela Miller:** The wireless auction is very important from two components. It is making more of the valuable wireless spectrum available for companies to be able to deploy these advanced services to Canadians. We've undertaken in the next years to have a total of 700 megahertz of commercial mobile spectrum available. By releasing the 700 megahertz combined with the 2,500 megahertz, we will be more than two-thirds along to meet that target. The reason you need that spectrum is that without that bandwidth you won't be able to actually have that high speed and deliver to Canadians.

The other reason 700 is important is for promoting competition, because through this auction we are enabling entry of a fourth player in every region. So we have the goal of ensuring competition, but also innovation and availability of world-class services to Canadians.

**Hon. Mike Lake:** In terms of the 99%, is there a similar statistic or measurement in regard to the percent of Canadian businesses that have access to broadband?

**Ms. Pamela Miller:** That would be similar because this is ubiquitous coverage. I would say especially in urban centres, where we would find our very high coverage, where we have the 75% availability at 50 megabits, that would pertain to most businesses and beyond; they would have even higher speeds than that.

**Hon. Mike Lake:** Taking a look at the number on the annex that you talked about, clearly the 1.5 megabits were at 99% but as we move further to the right, it's kind of interesting to note that in the mid range we're lower than the Americans, and then as we get to the higher range we're higher again. Why is that? Is there any explanation?

**Ms. Pamela Miller:** It's simply the build-out of the networks. As we have cable networks upgrading to what we call DOCSIS 3.0, to higher-grade technologies, fibre to the node, I think you'll find in those categories it will even out over time. It's simply the implementation in both countries. We're very similar in terms of our approach to promotion of private-sector-led approaches and promoting investment.

As you will see, this is very significant coverage and it does very well on an international scale.

**Hon. Mike Lake:** Just looking at the very highest end there, as we try to move from 75% in the 50 megabits range to 99%, to match what we have, or thinking optimistically down the road, how do we best accomplish that? What is the gap right now? How do we close the gap?

**Ms. Pamela Miller:** We have seen very significant progress over time, as you'll notice in the chart that was in our presentation. You will see that the private sector is driving that growth. So for 50 megabits you'll notice that only two years ago we were at 30% and now we're at 75%. This is very significant and rapid progress.

Our approach is that we don't want to crowd out the private sector. We want to have private-sector-led investment. Some other countries have taken a more direct investment approach, which is very costly. We are relying on the private sector, and it is certainly delivering in terms of getting the higher-speed capacity.

**The Chair:** Madame LeBlanc, you have seven minutes.

[Translation]

**Ms. Hélène LeBlanc (LaSalle—Émard, NDP):** Thank you very much, Mr. Chair.

Thank you very much to our witnesses for being here. I think we can benefit from your expertise.

I often hear from representatives of the private sector. I think it's great that you mentioned the private sector has to invest. But what should the public sector or government do to encourage network deployment? We know this is a vast country made up of numerous regions. We want to make sure that all Canadians in all regions have Internet access because, as you pointed out, it's a testament to a region's prosperity and development.

What should the public sector do? What role should the government play to support the deployment of that network, especially in terms of infrastructure and incentives, so that small and medium-sized businesses benefit, regardless of the region they're in?

• (1550)

**Mr. Alain Beaudoin:** Thank you for that question.

My answer will echo what my colleague mentioned about coverage. On the whole, 99% of the population has access to a minimum speed of 1.5 megabits. Furthermore, the measures

Minister Paradis announced on March 7 are primarily intended to increase competition and expand spectrum deployment so that private businesses can benefit.

So from the government's standpoint, its role is to establish policies that ensure fair competition, so that businesses can innovate and invest, while benefiting Canadians.

Private sector investment was mentioned. With the framework and policies in place, private businesses are confident so they are investing more and more in networks. That, in turn, benefits Canadians. Also, perhaps—

**Ms. Hélène LeBlanc:** We know, however, that the public and private sectors have different missions, and that's how it should be. The private sector has to be able to make money if it's going to offer service in more remote regions.

In that respect, do the policies that have been established, for spectrum in particular, include incentives that encourage companies to deploy networks? Do the measures put in place ensure that people in all regions of the country can benefit from the prosperity that comes with high-speed Internet access and new technologies?

**Mr. Alain Beaudoin:** Thank you for that question.

A few years ago, the government launched a program called Broadband Canada. It was designed to foster partnerships with businesses for communities that were not covered by private sector business plans because they weren't deemed profitable markets. The goal was to connect Canadians in remote regions who did not have access to a minimum service speed of 1.5 megabits. The investments made through that program made it possible to bring broadband access to 218,000 more households over the years.

**Ms. Hélène LeBlanc:** You're talking about the program in the past tense.

**Mr. Alain Beaudoin:** It ended on March 31, 2012.

**Ms. Hélène LeBlanc:** That means that all communities across the country now have access.

**Mr. Alain Beaudoin:** Right now, it is estimated that 99% of the population has access to a minimum broadband speed of 1.5 megabits.

**Ms. Hélène LeBlanc:** Very good.

We hear a lot about mobility. You said that everyone these days walks around with a cell phone, a tablet or what have you. But what I'd like to know is what happens when you leave a city where access is available. Say someone is working in the natural resource or forestry sector in a more remote region and has to use wireless services to communicate? Does the network coverage allow that person to communicate with their home base, which could be in Timmins or Rouyn-Noranda?

**Ms. Pamela Miller:** Thank you for that question.

Yes, we already have broad coverage called

[English]

HSPA networks. It has very good coverage of the wireless networks, up to 98%. In the 700-megahertz auction that is coming up, there is a condition by which if a company acquires two blocks of that spectrum, there will be requirements to deploy in rural areas as well.

[Translation]

**Ms. Hélène LeBlanc:** Is there any guarantee that companies will buy two blocks? If no company buys two blocks, there is no longer a reason to deploy in rural areas, is there?

[English]

**Ms. Pamela Miller:** That would be an outcome of the option. That was one of the considerations in the option design, that it would be one of the outcomes, to have access to two blocks. It could be either acquiring the spectrum directly or having access to two blocks.

[Translation]

**Ms. Hélène LeBlanc:** Very well.

In your document, you've included a graph that shows Australia, Canada and other OECD countries. I was fascinated to see that the curve for Australia rises sharply.

I'd like to know the percentages of private and public investment respectively in Australia's case.

•(1555)

**Ms. Pamela Miller:** In Australia's case, the investment was mostly public.

The graph shows both: public and private investments. It's not just private sector investments.

[English]

For Australia, they are actually investing up to \$43 million in their broadband networks, of which, at this point, the majority would be from the government.

[Translation]

**Ms. Hélène LeBlanc:** What I find fascinating about this is the fact that Australia's geography and economy are fairly similar to Canada's. Why, then, did Industry Canada decide not to follow that model, given the similarity between the two countries? Australia is a continent, but Canada is as big as one. Why wasn't that model favoured when the Industry Canada rules were being developed?

**Ms. Pamela Miller:** It's actually due to the lack of competition in Australia. There, the dominant company is Telstra. There isn't enough private sector investment. It's a deficiency in the Australian market.

[English]

In Canada, on the contrary, just as in the United States, we do have very good competition between the cable companies and the telcos. As you can see, we've had a total of over 22% of capital investment as a percentage of revenue. That wasn't happening in Australia. They did not have competition and they did not see that type of investment that was coming from their private sector.

[Translation]

**Ms. Hélène LeBlanc:** Thank you kindly.

[English]

**The Chair:** Now we go to Mr. Braid for seven minutes.

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

Thank you to our departmental officials for being here this afternoon. I certainly appreciate your presentation. I found it very helpful.

I'll stay on this notion of investment in telecommunications infrastructure. In Canada we've had a predominantly private-sector-led investment in our telecommunications infrastructure. Has that approach worked? How does our telecommunications infrastructure in Canada compare to other countries?

**Ms. Pamela Miller:** We have a very good telecommunications infrastructure compared to other countries. If you look at what we consider to be 30-megabit coverage, for example, we are in fact at the very top of the OECD in that coverage. We're ahead of the U.S. in that coverage. We're ahead of most of Europe in that coverage. This was 2011 data. We are at 76%, which is far beyond the OECD average for that type of coverage.

In terms of the LTE coverage, again, we are doing very well. We are at the top of the pack for deployment of LTE coverage. The U.S. is ahead of us, but we are anticipating to have new figures coming out this year showing our latest investments for 2011-12, which will push us from what we have today at 45%, probably to 66%.

You will have seen from the other chart that we are on par with the United States in terms of the 99% of 1.5 megabits. When you get into higher speeds, we're on par or in some cases slightly ahead. I think by international standards we are doing well in terms of our network performance.

**Mr. Peter Braid:** Great. Thank you.

I note as well that with respect to the LTE network, it works particularly well with the new BlackBerry Z10, which is lightning fast.

Leaving the telecommunications sector specifically, Monsieur Beaudoin, I'll ask a question at a higher level, if you will. Generally speaking, why is it important for Canadian business to invest in digital technology?

**Mr. Alain Beaudoin:** Ultimately the decision to invest or not in digital technologies lies within the firm making its investment. At the same time, for them to increasingly invest in digital technologies is critical for their competitiveness and their ability to innovate, and also in their ability to penetrate new markets as competition is becoming increasingly fierce.

When we compare ourselves to the United States, for example, our firms, as I mentioned in my presentation, invest approximately 58% of what U.S. firms invest in digital technologies. As such, the government recognized that there were some opportunities to work with the private sector, to try to incite them to invest more in digital technologies.

Minister Paradis, for example, in November 2011 announced a digital adoption program, which is managed by NRC-IRAP. NRC-IRAP has specific industrial technology advisers, experts in the field working with firms to try to identify what types of solutions they require for their own specific issues, making sure they have customized solutions to meet their specific needs. Since the inception of the program, more than 600 firms have used the advisory council, and they have also received some specific funding to support them in their efforts.

That's why the BDC has put forward significant efforts to help small and medium-sized firms increase their web presence or establish a web presence, because it's so critical for their ability to compete and to be found. If you take, for example, just a small tourism operator, a transportation company, people do their search online.

That's one thing they're trying to do to work with those firms.

Because a challenge was identified in the ability of these firms to acquire the kind of equipment they require, the BDC also set aside \$200 million specifically for loans to help those firms acquire those technologies, given that it's so important for their overall competitiveness and ability to innovate, but as I said as well, it's increasingly to penetrate markets.

•(1600)

**Mr. Peter Braid:** When you talk about the importance of penetrating the markets, these are markets both nationally and internationally, aren't they?

**Mr. Alain Beaudoin:** Absolutely. And we want to make sure our firms in Canada, in all sectors of the economy, are competitive and also have the ability to penetrate, in some cases, the markets that they may not be traditionally in. As I mentioned, they tend to be largely present in the United States and the European Union, but as I referred to earlier in my presentation, when you look at overall growth, we know that in some cases it will take place in emerging economies.

**Mr. Peter Braid:** In terms of the quick advancement of the evolution of new technology, the presentation mentioned fibre to curb, fibre to home. In a previous study at this committee, and it might even have been in the previous parliament, I remember hearing about this issue of the "last mile" to getting connectivity to the home. Do any of these new technologies assist with that dilemma? Are we further down the road, so to speak?

**Ms. Pamela Miller:** I would say the mobile broadband certainly is giving a whole new way for people to access broadband. The traditional technologies of cable and telco upgrading to fibre to the node are still able to get very high speeds going into the home, using cable and the telco equipment. But now we do see, with the high-speed satellites and mobile broadband, a whole new possibility of applications that could never have happened before in terms of just opening up possibilities of new business models. In terms of opportunities for Canadian businesses, this certainly offers a lot of potential for new services, new products that couldn't have been done before.

**The Chair:** Thanks, Ms. Miller.

Now on to Madam Sgro for seven minutes. Welcome.

**Hon. Judy Sgro (York West, Lib.):** Thank you very much.

Thank you for the information. It's especially good to see where we fit when it comes to the U.S., and that we are as comparable as we are, according to your charts. I'm glad to see that we've made that much progress.

Are you planning to put limits on the amount of spectrum, though, that a company can hold?

**Ms. Pamela Miller:** The auction rules for the 700 auction were announced. Those rules are designed so that there will be a cap. One block will be available to a new entrant. The government is also going to be consulting overall on its approach to transfers of spectrum. We just introduced a consultation on that issue, and it will be closing on May 3. I'll be seeking views on how we would treat the overall concentration of spectrum when companies seek to transfer their licences. I would also point out that in the past the government had a set-aside in the AWS auction, which set aside a considerable amount of spectrum for new entrants.

•(1605)

**Hon. Judy Sgro:** According to the notes, there seems to be some uncertainty around the rules when it comes to regarding the transfer of sale of spectrum and being able to attract foreign investors. If Mobilicity or Wind or some of these others that are interested are not able to get the capital, do you have a plan B?

**Ms. Pamela Miller:** I would say that the government took action last year to liberalize the foreign investment restrictions for companies with less than 10%. We've opened up the market in terms of creating greater access to capital, and the market will be responding accordingly. As I noted, we do have the consultation, which is now under way, and we'll be seeking views. We'll be publishing the results of that consultation in May, or shortly after the consultation closes.

**Hon. Judy Sgro:** Where are you with the thought process on including the issue of m-health? It was suggested that there could be 5% to 10% savings in health care costs if you included, in the whole spectrum allocation, m-health.

**Mr. Alain Beaudoin:** We're aware that some stakeholders have asked to have a portion dedicated to it. On that specifically, I would have to get back to you with details, just to be sure I provide you with the appropriate answer.

**Hon. Judy Sgro:** But I assume the department is looking into that possibility.

**Mr. Alain Beaudoin:** We're looking at any possibilities. We have ongoing consultations with the stakeholders, and we know for a fact that some stakeholders have called for the issue you referred to.

**Hon. Judy Sgro:** Have you done any work to see whether that really is the case, that there would be the 5% to 10% savings on it?

**Mr. Alain Beaudoin:** I'm not in a position to answer that. I don't know. We'd have to get back to you on this through the clerk.

**Hon. Judy Sgro:** Your target is 2015. How realistic is it that you will be able to reach your target?

**Mr. Alain Beaudoin:** Which target are you...?

**Hon. Judy Sgro:** I mean the target that the CRTC has set for broadband Internet access. Is the government going to come back and report here on whether it's going to be accessible to all Canadians by 2015?

You may have addressed this earlier; I'm not sure.

**Mr. Alain Beaudoin:** With regard to the upcoming 700-megahertz auction, when the minister made the announcement on March 7, he referred to e-mails that the auction would take place on November 19 of this year, and the auctions will start on November 19, 2013.

Is that what your question was all about?

**Hon. Judy Sgro:** Yes, exactly.

Thank you.

**The Chair:** Thank you, Madam Sgro.

We'll now move on to the next round of five-minute question sessions.

Mr. McColeman, you have five minutes.

**Mr. Phil McColeman (Brant, CPC):** Thank you, Mr. Chairman, and thank you to the witnesses.

You mentioned, in one of the slides, that satellites are now starting to be looked upon as a real possibility for the future, in terms of speeds and competitiveness.

Is there anything more you can explain to us in terms of the role you see these devices playing in future access?

**Ms. Pamela Miller:** Certainly satellite offers great possibilities for the very remote areas. With the new technologies, as I mentioned earlier, we see what is called a “10 times” throughput increase in the speeds that can be achieved.

Recently we had two of these high-speed satellites launched. I think they are going to offer up greatly expanded opportunities for what could be done using those technologies. I would suggest, if you wanted to have a more in-depth description of the satellite industry, that we could come back to you. You might also invite some of our private sector participants in this area who are active. We have some good Canadian innovators in this area.

**Mr. Phil McColeman:** That was going to be my follow-up. Who are the Canadian players in that particular segment?

**Ms. Pamela Miller:** We have a number of companies. Of course we have Telesat, and we also have companies that offer services using satellites. Barrett Xplore certainly has been a leader in this regard.

**Mr. Phil McColeman:** Excellent.

Let's go on to your comments about the competition. I think the way you're structuring things is to guarantee individual providers in all markets. Is the ultimate purpose to give the consumer a benefit of lessening the cost of services? Is that one of the goals?

• (1610)

**Ms. Pamela Miller:** I would say that overall we're looking at having better prices. Increased competition leads to innovation and better services, and it has an overall positive impact on consumers. Since 2008, when we ended the AWS set-aside, we have seen a 10% decrease in wireless prices. Now our prices in the wireless area are actually better than those in the U.S.

**Mr. Phil McColeman:** That's good news, and I think it ties in to the next question. It's about the graph that shows that by 2016, total traffic will be nearly four times higher than in 2011. When I look at that graph and see how dramatic this increase has been in the relatively short period of time since 2011, the question comes across my mind: how does Canada fare, with this kind of growth, in comparison with other countries? I know you have given us investment dollars and some comparisons, but are we keeping up in terms of scaling up to meet this demand? Are we doing the necessary

investing—meaning, are the players doing the necessary investing—on this kind of trajectory?

**Mr. Alain Beaudoin:** The growth in other countries is quite similar in terms of the increased demand for mobile; it's something we see across similar countries.

As to your questions about what Canada is doing, the government thinks the March 7 announcement to auction the 700-megahertz spectrum and the 2,500-megahertz spectrum in the next few years will give access to additional spectrum that will be required to increase capacity to meet the demand.

At the same time, the government is mindful of the fact that there will be increased demand for more commercial mobile. That's why, as part of the announcement, the minister announced that we're launching consultations on what we call a commercial spectrum outlook and will consult with the stakeholders as to identified future needs for mobile in order to meet the growing demand and to make sure that we can identify the spectrum as we move forward, in order to re-auction it in years to come.

**Mr. Phil McColeman:** That seems to be critical in terms of Canada competing on opening up the opportunities commercially in the emerging markets. As you've said, it is to set the platform for companies to be able to do that.

Are there any other innovative approaches or best practices that you see happening in other countries—this will be my last question—that we could be piggy-backing on, or adopting, or that would fit the type of platform our government is setting? Is there anything else we could be doing? I guess that's the last part of that question.

**The Chair:** You'll have to think about that question and maybe squeeze in the answer at some other time. Time has run out on that question round.

Thank you, Mr. McColeman.

[Translation]

It is now over to Ms. Borg for five minutes.

**Ms. Charmaine Borg (Terrebonne—Blainville, NDP):** Thank you, Mr. Chair.

Thank you to the witnesses for being here today.

Just over three years ago, the former industry minister announced a digital strategy for Canada. Both industry and the general population welcomed the announcement. It was supposed to give us an overview, an opportunity to tie all the access issues to the digital economy and even digital literacy.

Several other countries have already begun implementing their digital strategies, Australia and Great Britain, to name a couple. In Canada, however, it seems to be more of an urban legend. We haven't heard anything about it in a while. Minister Paradis said it was coming. Can you give us an update? Where do things stand now?

**Mr. Alain Beaudoin:** To answer your question, I would say that, further to consultations carried out in 2010, the government has put forward numerous measures to support the digital economy. My colleague and I mentioned—

**Ms. Charmaine Borg:** Sorry for interrupting, but my question was about the digital strategy specifically.

**Mr. Alain Beaudoin:** I'm getting to that.

The government put forward numerous measures that support the digital economy, including the spectrum auction the minister announced on March 7. Many other measures that support the digital economy have also been announced in recent years. For instance, the adoption and use of the information technologies we were talking about earlier. The IRAP initiative also comes to mind. It's a program to help small and medium-sized businesses adopt solutions to increase their Web presence and obtain loans to acquire the necessary equipment. The Business Development Bank of Canada also plays a role.

Other measures have been taken as well, precisely because businesses in the ICT sector required more resources within IRAP given that they are such major innovators. In fact, the ICT sector accounts for more than 30% of all private sector research and development in Canada. IRAP supports businesses in their efforts to innovate and pursue research and development. Those are some of the measures that have been implemented.

The government has also advanced numerous initiatives under the legal framework, copyright, for example. All of those measures support the digital economy.

• (1615)

**Ms. Charmaine Borg:** A lot of sound measures have been put in place, but not as part of a comprehensive strategy yet.

My next question has to do with pricing. When I talk to residents of remote regions, they often tell me high-speed Internet costs them upwards of \$100 a month.

Did the Broadband Canada access initiative created in 2009 target a reduction in high-speed Internet prices in remote areas, or even lead to lower prices?

**Mr. Alain Beaudoin:** As I mentioned earlier, the purpose of the program was to work with communities and the private sector to build partnerships for areas not covered by a business plan or business case. That enabled private companies to deploy broadband services. Through the partnerships, solutions were offered to those communities, whose access to broadband services had been either non-existent or very poor. Through the program, people received viable services that they were able to pay for.

**Ms. Charmaine Borg:** Did prices drop as a result of the program?

**Mr. Alain Beaudoin:** I'll have to get back to you on that. I'm not sure whether we have the figures. But, as I pointed out, the program brought broadband access to 218,000 households that did not previously have access to a minimum service speed of 1.5 megabits.

**Ms. Charmaine Borg:** It's good to have access, but people still have to be able to afford it.

I have a third question. You may be familiar with a program that was implemented in the U.S. After the transition from analog to digital television, the Americans were able to use what is known as "white space" to offer wireless Internet in remote regions and regions where access had not been possible.

Have you examined that program? Would it be possible in Canada?

**Mr. Alain Beaudoin:** Let me start by saying we work closely with the Americans on those issues. White space is something we're looking at right now. For detailed information, we are going to consult the private sector.

If you like, we can follow up and provide you with more details on that.

**Ms. Charmaine Borg:** Wonderful. I'd really appreciate that.

Thank you.

[English]

**The Chair:** Thank you very much.

Now on to Madam Gallant for five minutes.

**Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC):** Mr. Chairman, through you, first of all, I'd like to speak to the 1% of Canadians who do not have high speed.

You mentioned that there were technologies and enhancements to existing lines, for example, via fibre optics. Will any of these improvements help out or be available to the 1% who don't have coverage right now?

**Ms. Pamela Miller:** I would say the technology is continually improving, and it can be expected that it will continue to make breakthroughs that will open up new possibilities.

In the cases where there are unconnected households right now, it's often a very physical aspect of geography—there is something very particular about the terrain; there is a particular configuration of mountains or valleys or a particular challenge to be overcome. One would expect that as we continue to see these quite significant advances in technology, over time that would be overcome. But we're at a very small percentage point, and I would point out that even traditional telephone lines, the wired telephone network, always had a gap of a few per cent, because simple geography does play a role.

• (1620)

**Mrs. Cheryl Gallant:** On the matter of simple telephone lines, it wasn't just geography; it was economics, because there are still lines with no rock to go through, permanent houses that have been in existence for 60 years for whom the telecoms just don't feel it is worth their while to provide with service. Unfortunately, they rely upon cellphones and so on where available. So the new technologies don't necessarily improve the penetration, because of the geological obstacles. It is more enhancing the features for those who already have them.

**Mr. Alain Beaudoin:** The technology is always improving, as my colleague mentioned.

I'm not an expert in the field, but one thing we know is that the upcoming 700-megahertz auction is what some refer to as beachfront spectrum, which will allow for less infrastructure, fewer towers. It will be more available to travel the large distances, and it might help with regard to broader coverage for rural areas.

**Mrs. Cheryl Gallant:** With these emerging technologies and enhancements, how does the security compare from one to the next? Are the newer technologies, the satellite, more secure than, for example, a hard line? How do they all compare?

**Mr. Alain Beaudoin:** All types of technologies will create some challenges from a security perspective, but at the same time the private sector and the government are undertaking a number of measures in order to deal with those challenges, or those threats, per se. As to the particular types of technology, satellite versus mobile and so on, I would not be in a position to comment on whether or not one is more problematic than the other. I am not the expert in the field.

**Mrs. Cheryl Gallant:** Thank you.

You had mentioned that our rates are lower than in the U.S. Were you referring to Internet or cellphone coverage?

**Ms. Pamela Miller:** It was to both. We commissioned a study with the CRTC, which is available, and some of the results are shown in the CRTC monitoring report. We have found now that both for the wire line and for the wireless, our rates are lower than in the U.S.

**Mrs. Cheryl Gallant:** What we're hearing a lot in the news is how Canadian consumers have very little choice when it comes to telecoms, insofar as the number of companies that can provide the service. They have a choice of getting either a three-year contract with a provider or pay as you go. People's circumstances change. Sometimes an individual can get a job in another country, they have just purchased a new contract for the phone, and they're on the hook for several hundred dollars. That is quite a challenge, especially for new people starting fresh out of university.

With this study, would you say that these high costs and requirements to have this three-year contract justify what the telecom companies have to invest in order to have the available infrastructure?

**Ms. Pamela Miller:** In terms of the contracts, that's a business model by which there is a subsidy for the handset that is acquired by the consumer. Instead of paying the full price for the handset when you purchase the device, you essentially pay it off over time. That is a particular business model that is used in the sector.

In terms of consumer awareness, I think it's very important. The consumer should be fully aware and informed of what that entails when they are purchasing their devices. Consumer transparency of information is extremely important.

All of those issues around transparency and consumer knowledge are being looked at right now in terms of the CRTC. They're having a hearing, a proceeding, on the whole issue of consumer wireless issues and transparency, and knowledge for consumers is one of these issues. I would also point out that competition has been a way of putting new business models into the market, such that companies are now offering different types of business models.

•(1625)

**The Chair:** Thank you, Ms. Gallant. I'm sorry, but we're way over time and we need to be fair to everybody.

Mr. Harris, please.

**Mr. Dan Harris (Scarborough Southwest, NDP):** We're over time? I can't imagine that.

I'm following up on Ms. Gallant's question. She was talking about the three-year contracts. Is Industry Canada looking at any measures to bring Canada more in line with the international norms, which are actually two-year contracts? Cell companies in other countries are making a return on that two-year contract instead of the three-year ones. Is Industry Canada looking at anything to bridge that gap?

**Ms. Pamela Miller:** As I noted, in terms of the business models in the market, there's competition that gives consumers choice as to what they would choose to purchase. In terms of the transparency of information, so that consumers are aware of what they are purchasing, that is being addressed. More broadly, the issues around wireless consumer issues are being looked at by the CRTC.

**Mr. Dan Harris:** Moving on to LTE coverage, the graph you showed demonstrates that there was 75% coverage in LTE at the end of 2012. How much of that coverage actually exists in rural areas? How much penetration is there in the rural sector?

**Ms. Pamela Miller:** The graph isn't about LTE. Our LTE coverage is about 45% now. This graph is more a wireline coverage, referring to slide 14—

**Mr. Dan Harris:** Yes, sorry. I got my numbers mixed up, but still, it reads two-thirds coverage at the end of 2012?

**Ms. Pamela Miller:** Yes, that's the idea. It will be at two-thirds coverage. What we expect to see.... Right now, HSPA networks have very good coverage in Canada; they are at 98%, if not beyond. We would quite expect that the telecom providers will upgrade those networks to LTE, because they're going to be getting the spectrum to be able to do that. It makes good business sense for them to do it, so we do expect that LTE coverage will be continually rolling out, continually expanding.

**Mr. Dan Harris:** At the last meeting of the industry committee here, we had Mr. Scott Smith, the director of intellectual property and innovation policy from the Canadian Chamber of Commerce. He spoke about how there's "somewhere in the neighbourhood of 2.2 million" small or medium-sized enterprises in Canada. Giving us a pretty shocking number, he said, "Approximately 70% of those companies don't currently have a website."

That's a staggering number given today's technology and its availability. They don't seem to be taking advantage of it, and that's not only the small companies. There are large companies as well that have not adopted it. It's fine to have connectivity, but if it's not getting used, and certainly business doesn't seem to be leveraging that....

Mr. Beaudoin, I think you touched on it very briefly. What additional measures are you taking to actually increase that penetration? In terms of the current program, while it seems to have helped 600 businesses start to develop an online presence, that's a drop in the bucket out of 2.2 million.

**Mr. Alain Beaudoin:** I referred earlier to the point that businesses in Canada overall are investing 58% of what the U.S. firms are. As you mentioned, this is an opportunity they should seize. We think it's critical with regard to competitiveness and making sure they can be innovative.

At the end of the day, the government needs to have a targeted approach. That's one of the things the IRAP and also the BDC will do: work with the industry and with various associations as well to try to increase the number of firms that will adopt ICTs and that will have a presence on the Internet.

For example, the Canadian Chamber of Commerce itself has a role to promote with its members the importance of having a web presence, of tapping into the available resources, and to make sure they do that. As part of their membership, they have a number of ICT firms that can provide solutions to their members as well. It's also important that the various associations themselves work with their members to increase their web presence and their adoption of ICTs in order to increase, as I mentioned, their ability to innovate, but also to compete.

**Mr. Dan Harris:** You mentioned that the government needs a targeted approach to address that issue. Does Industry Canada currently have a targeted approach, with measurables and deliverables to measure success in bringing Canadian businesses online?

• (1630)

**Mr. Alain Beaudoin:** As I mentioned, the government has a targeted approach through IRAP and NRC-IRAP to increase adoption. Our targeted approach is to focus on SMEs; I referred to some of the challenges SMEs are facing. In the last two years, the government has put forward measures to address that specific need through IRAP and the BDC. They're working closely together to complement their efforts to target the SMEs specifically and also to make sure this information is shared with the economy as a whole.

**Mr. Dan Harris:** What kind of target has been set to be reached by the end of 2014? I picked that number out of the air. You can take 2015 as well.

**Mr. Chris Padfield (Director General, Digital Policy Branch, Department of Industry):** At the end of the program, they were expecting about 600 firms to be supported directly through advice, with the expectation of their having expanded and shared their experiences with a few thousand other firms. This is really the idea of getting them to share a lot of the results of their projects through direct funding with others.

I want to clarify the chamber's 30% figure; I'm not sure of the origins of that. Our last StatsCan survey on business adoption of websites comes from 2007. They had about 40% of businesses in Canada with updated websites. We're currently in the field right now with a further survey, which we're going to have results for in June. We'll have to share those at that time. I'm unsure of the source of the 30%. I know that StatsCan figures are much higher than that.

**The Chair:** I'd have one more, but I'm out of time.

That will be the end of this session. We'll suspend for two minutes and wait for the Federation of Canadian Municipalities to come to the table, and then we'll continue.

• (1630)

(Pause)

• (1630)

**The Chair:** Ladies and gentlemen, we're back now with the Federation of Canadian Municipalities. We have Michael Buda, director of policy and research, and Daniel Rubinstein, who's a

policy analyst, policy and research. Mr. Rubinstein will have opening remarks for the Federation of Canadian Municipalities.

Just a reminder, colleagues, we'll have about 12 to 15 minutes left at the end to deal with business.

Go ahead, Mr. Rubinstein.

**Mr. Daniel Rubinstein (Policy Analyst, Policy and Research, Federation of Canadian Municipalities):** Good afternoon.

Thank you for the opportunity to address the committee today. Our president, Karen Leibovici, from Edmonton, Alberta, sends her best wishes.

As you know, FCM has been the national voice of municipal governments since 1901. We represent close to 2,000 municipalities, which in turn represent over 90% of Canada's population.

FCM and its board of directors have been engaged with a variety of issues related to broadband and telecommunications. I'll name a few quickly: the siting of antenna systems and cell towers in our communities; the impact of telecommunications infrastructure on the management of the municipal rights-of-way; the need for 20 megahertz of dedicated 700-megahertz spectrum for public safety broadband; the importance of robust and accessible broadband services for rural communities; and the unique challenges of providing telecommunications services in northern and remote communities.

We are happy to answer any questions you may have on any of these issues, but we'd like to focus our opening remarks on two areas—rural broadband and northern telecommunications.

FCM's members are in the business of building essential infrastructure that supports our communities—from roads and bridges to water and waste water and to recreation and cultural facilities. In today's digital world, broadband connectivity has become as critical as this core municipal infrastructure to the sustainability and prosperity of our communities and of Canada as a whole.

This is Industry Canada's description of the Broadband Canada program:

Broadband Internet access is viewed as essential infrastructure for participating in today's economy, as it enables citizens, businesses and institutions to access information, services and opportunities that could otherwise be out of reach.

For rural communities, the absence of broadband Internet significantly impedes economic development and denies communities such competitive advantages as the electronic delivery of health and education services and the ability to gain access to markets for products that are produced in their regions.

FCM's 2009 report on the federal role in rural sustainability highlighted the need for federal investments in rural broadband infrastructure in order to close the digital divide between rural and urban Canada.

This is consistent with Canada's telecommunications policy objectives as stated in section 7 of the Telecommunications Act. Paragraph 7(b) lists this objective for Canada:

to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada;

Over the past several years, the Government of Canada has made some important investments in rural broadband, including through Broadband Canada: Connecting Rural Canadians, a program that was part of the economic action plan; as well as, for example, the Eastern Ontario Regional Network, which was funded through the major infrastructure component of the Building Canada fund.

These programs have brought a minimum level of broadband access to eligible rural communities. In the case of Broadband Canada, broadband is defined as a minimum 1.5 megabits per second, and the Eastern Ontario Regional Network is bringing speeds up to 10 megabits per second. However, with the rate of technological change, the rapid transition to electronic delivery of government services, and the widespread adoption of business offerings that require real-time and robust broadband access, there is much more that must be done to ensure that the digital divide between rural and urban does not widen further.

As the committee is aware, two recent decisions by Industry Canada on spectrum management will have a significant impact on the deployment of rural broadband networks going forward. These were spoken about in the last hour.

First, the Government of Canada has included a rural deployment requirement in the final conditions of licence for the upcoming 700-megahertz spectrum auction.

In FCM's submission to Industry Canada's consultation on this issue, we expressed our concerns about the effectiveness of the rural deployment requirement, as it only applies to carriers with two paired blocks of spectrum, and includes targets that are based on HSPA network footprints that were in effect in March of 2012.

In our submission, we encouraged Industry Canada to reconsider the decision to use the HSPA footprint, as we believe it offers no guarantee of rural deployment.

We also recommended that Industry Canada include measures to ensure unused rural spectrum is used in a timely fashion.

We note that the final conditions of licence released last week do not address these concerns, which, in our opinion, may require the federal government to introduce future measures or incentives down the road to ensure that 700-megahertz networks are in fact deployed in rural Canada.

Second, as was discussed earlier, the federal government has announced it will be allowing licence-exempt use of what's called "TV white space" spectrum, which takes advantage of the unused spectrum created by the conversion to digital television.

• (1635)

Based on trials that have already occurred in the U.S. and the U.K., there appears to be significant potential for TV white space to bring broadband to rural communities at a lower cost than networks using licensed spectrum. We encourage the government to introduce

its final technical requirements for TV white space as soon as possible so that trials can begin in Canada.

On the issue of northern and remote communications infrastructure, we have several recommendations that are consistent with the 2011 "Arctic Communications Infrastructure Assessment Report"—ACIA—which we encourage the committee to consider during the study.

We agree with the ACIA report's conclusion that:

an inadequate communications infrastructure [in the North] cannot be allowed to cause more important things to fail, like emergency services, health, education, housing, industry, opportunity and sovereignty.

In the interests of time, I'm going to go through our recommendations quickly, but I'm happy to elaborate further during the questions.

First, the Government of Canada should develop a north-specific strategy with clearly defined rules that articulate a sustained, multi-year funding commitment for communications network development to meet connectivity standards both for Internet and voice in the north. The need for a holistic strategy is extremely important as existing federal subsidies for northern ICT services, information communications technology services, are set to expire in 2016.

Second, the government should commit to service parity both among northern communities and also between the south and the north.

Third, the government should ensure there is a redundant connection into every arctic community to avoid gaps in the provision of essential services.

Fourth, the government should ensure that investment strategies for arctic communication networks include provisions for the increasing rate of technological change and the continuous introduction of new consumer services and devices.

Fifth, government policy should foster competition in ICT services in the north, including through a restructuring of the National Contribution Fund, which is administered by the CRTC, to allow for portable contributions.

Finally, the government should work with northern municipalities in developing its strategy for ICT development in the north. Now is the time to re-evaluate Canada's policies for ICT development in both rural Canada and in the north, so that all Canadians not only have access to broadband, but have sufficient bandwidth to take advantage of new technologies and participate in the global economy.

That concludes our remarks. We're happy to answer your questions.

• (1640)

**The Chair:** Thank you, Mr. Rubinstein.

We'll now move to Mr. Warawa for seven minutes.

**Mr. Mark Warawa (Langley, CPC):** Thank you, Chair.

Thank you to the FCM for being here. Do you have a handout, including the recommendations, regarding the presentation you just made?

**Mr. Daniel Rubinstein:** I don't, but we have provided the speaking notes to the clerk and we can make that available to members.

**Mr. Mark Warawa:** Very good. Thank you.

I believe our government highlighted, through the economic action plan, some of the incredibly good things the government has done. Of course, there is more to do, but I want to focus on what the federal government can do to help, and also provincially and municipally. What you represent, as a body, is the vast majority of municipal governments across Canada.

What role does a municipal government play? Well, they provide a form of consultation with the community as this infrastructure occurs across Canada. They are the body, the ears, and Industry Canada of course listens to them.

There's been a recent development of a protocol with you and the industry, and I think it's relatively new. Could you explain the purpose of that protocol and what the FCM is planning to do in encouraging local governments to provide guidance, a protocol, within the communities that may be consistent across the country, to provide some diversity options? How is this protocol going to work?

One of the challenges that I think many of the MPs around this table will hear is that there may be a proposed new tower in a community and there may be some people in the community who are not happy with that, so they go to their councillor and mayor and say they don't want that there. That would be the first line of defence, if they're trying to keep this very important infrastructure from happening.

What role would you see the FCM playing with municipalities in this new protocol in encouraging the facts to get out? For example, a resident would say that it will devalue their home; it will make their home harder to sell if they have high-speed Internet broadband access. In fact, it would be the opposite. If you lived in an area where you do not have access to the service in a very quickly changing industry, if you don't have access to that service in your area, it would actually devalue the home.

How is the FCM going to work with local government to make sure more and more Canadians are using the service? The more Canadians who access the service, the more the price of the service will decrease.

**Mr. Michael Buda (Director, Policy and Research, Federation of Canadian Municipalities):** That's for sure.

Certainly, the situation you describe is a very common one that municipalities experience, in that everyone wants services, but very few people want to host the potentially negative impacts of delivering that service locally. Sometimes it's called NIMBYism—not in my backyard—and that certainly applies to the installation of some forms of ITC infrastructure, particularly antenna towers.

The intent of that protocol is actually to first inform and really empower citizens to know about how new infrastructure development might impact their property or their community. The long experience of municipalities shows it's always better to ensure that the community is aware of what's happening and how it's going to change the community. The consultations, if there are going to be consultations, can occur without the suspicions and innuendo and, frankly, I think as you mentioned, false facts and the rest.

What this protocol really is meant to do is, frankly, require industry, in all cases, to work with municipalities through the normal community consultation processes that municipalities apply to all sorts of services that might get the kind of response that you're describing, so that they can manage it the way they do everything else. It's not just federally regulated activities that get this kind of attention; most municipal services do as well.

The intent is simply to require telecommunications providers to use exactly the same consultation processes that municipalities use to successfully manage this kind of thing in a wide range of other issues. Of course, as I hope the committee knows, the existing policies allowed for an exemption of antenna towers of under 15 metres from any form of public consultation or notice, which I think in the minds of our members seemed both unreasonable and also ineffective. Again, it gets rumours going; there's disinformation and the rest.

So we're very pleased to work with the wireless and telegraph association to come to a voluntary agreement to improve the level of consultation in that area.

• (1645)

**Mr. Mark Warawa:** Do I have any time left, Chair?

Okay. For the Chamber of Commerce, the municipal government, of course, is the licensing body for business. What role is the FCM playing with the Chamber of Commerce—they were here at the last meeting—to again inform business?

Mr. Harris highlighted the point that 70% of businesses don't even have a web page. If they don't keep up with the change, they will be left behind. Are you working with the chamber?

**Mr. Michael Buda:** Probably not specifically on that issue; frankly, most of our work, especially on the deployment and use of broadband technologies, has been focused on rural and northern communities.

That's not because what's happening in urban communities is less important, but simply because we have limited resources, and our members have identified the lack and paucity of services in those rural and northern communities to be at least the first thing we should focus on.

So on that question we haven't done a lot of work, although we do work closely with the chamber on other issues.

**Mr. Mark Warawa:** Thank you.

**The Chair:** Thank you, Mr. Warawa.

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

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

Good afternoon. Thanks for coming today.

Maybe we could keep to the same theme of the urban settlements. I know that you've been doing a lot of rural work, and that's really important, but here's what I'd like you to turn your minds to. When you think about cities, major cities around the world, you think about places like Seoul, Korea, where you can get wireless broadband on the subway systems. It's very cheap to access high-speed Internet in the world. Downtown, it's very cheap. It's \$35 a month or something, and it can be even cheaper in the core.

How do you picture Canadian cities in relation to that?

**Mr. Michael Buda:** I would say that the experience is mixed. Certainly, I think it's safe to say that, in general, especially the larger Canadian cities simply aren't keeping up with their counterparts in this area, for the simple fact that most municipalities are struggling to keep up with increasing demands and mostly static revenues from property taxes, and in fact cuts to transfers and other revenues.

It means that municipalities are juggling growing costs and stable revenues, which means they have to really prioritize where they put their funds. Often, that means maintaining core infrastructure, i.e., making sure your bridges don't fall down, the drinking water is still safe, and your wastewater treatment plant is operating to satisfaction and to regulation.

That said, obviously municipalities are always trying to stretch their dollar further and do what they can, so in fact there are a lot of examples. Indeed, from the region you're from, you can ride the SkyTrain almost anywhere and maintain those services, but it's nowhere close to what you're experiencing elsewhere.

Really, it comes down to the resources that we've empowered our cities to either collect or have shared with them from other orders of government. Obviously, FCM's long-standing position is that municipalities play a really important role in strengthening our economy, but if we want them to maximize that role, we need to ensure that we're investing in them, whether that be through supporting basic infrastructure, which takes the pressure off the municipal balance sheets so they can do these other things, or supporting them in those areas directly.

• (1650)

**Mr. Kennedy Stewart:** Okay. In Burnaby, where I'm from, we have a lot of tech companies, but I think of other tech companies around the world, and they think they can go anywhere, pretty well. What I'm worried about is that they're not thinking of large Canadian cities as the places that are the most attractive for business to happen, mainly because we're not keeping up with other cities in terms of reducing their costs, essentially, for wireless and broadband access.

Besides transferring money for basic infrastructure, of course, are there any experiments in Canadian cities you'd like to point us to that we perhaps could look at? I know that Toronto has done some things.

**A voice:** Some examples—

**Mr. Kennedy Stewart:** Yes. Maybe we could go from there.

**Mr. Michael Buda:** Well, as I said, because we haven't spent a lot of time focusing on the opportunities in urban areas, we don't have a lot of information. Surely the Canadian wireless and telegraph

association would, because they've been doing a lot of work on that, and likely the chamber and other organizations would. We can't point to anything specific.

**Mr. Kennedy Stewart:** Okay.

Is there anything else that you wanted to add about rural access? You did say that was the point you were highlighting. It's going to be especially hard for smaller municipalities to invest in anything other than the most basic schemes, so perhaps this is something that.... Is there some kind of national strategy? We have heard from others that they'd like to have a digital strategy. Is this something that you would also support?

**Mr. Daniel Rubinstein:** As we mentioned in our opening remarks, we're looking at the spectrum policy of the federal government. It obviously has an impact on rural deployment of the 700-megahertz spectrum. It will as well on the 2,500-megahertz spectrum when that happens. The TV white space spectrum, which I mentioned, also has application in smaller communities.

We're looking for the government to have a spectrum policy that works in rural Canada and to make sure that the policy objectives under the Telecommunications Act and under the CRTC's mandate are in fact proven to be meaningful in rural communities. That's where we've focused our energy.

**Mr. Kennedy Stewart:** Okay.

**A voice:** Do you have any questions, Hélène?

**Ms. Hélène LeBlanc:** If we have time, may I jump in?

**The Chair:** Okay.

**Ms. Hélène LeBlanc:** Thank you very much for the presentation.

I was very interested when you mentioned the spectrum auction. How would you like to see the spectrum auction ruled to really address the deployment in rural and faraway regions of Canada?

**Mr. Daniel Rubinstein:** The final decision on the conditions and licence was just made by Industry Canada, but I'll go over our submission again.

We felt that the rural deployment requirement, being based on the HSPA network and also applying only to carriers that have two or more paired blocks.... Industry Canada has been very clear on this. Their understanding is that the incumbent providers are going to be in the best position to offer 700-megahertz networks because they already have an HSPA network. We understand that. But we certainly have concerns that there's no real obligation, given the way the condition of licence is written, to make sure that there will be rural deployments. So you could have an incumbent deploy largely in an urban area for the new entrants. Of course the government is trying to weigh the need for competition for new entrants against the need for rural deployment. They're under no obligation to deploy in rural areas.

The auction will have to happen. We'll have to see who wins. Then we'll have to consider whether additional mechanisms are necessary.

**Ms. Hélène LeBlanc:** Would you like to see government reinvesting the money provided by the auction into deployment to help regions that are less served?

**Mr. Daniel Rubinstein:** It's not really necessary to link the auction with a policy to ensure rural broadband. But the government and the CRTC have all stated in the past that there's a role for public sector involvement in ensuring that where market forces aren't sufficient, there's rural deployment.

• (1655)

**The Chair:** Thank you, Mr. Rubinstein.

Thank you, Madame LeBlanc.

**Ms. H  l  ne LeBlanc:** I was just getting going.

**The Chair:** We'll now move to Mr. Carmichael for seven minutes.

**Mr. John Carmichael (Don Valley West, CPC):** Thank you, Mr. Chair.

Good afternoon, gentlemen.

I'm going to come to your recommendations. I'd like to know a little more about them.

As I was thinking about them, and having listened to our previous witnesses and the minister's announcement last week, I'm curious as to your position.

When I look at some of what the minister announced relative to tightening the rules around increasing cell tower sharing, I think that will be good for big cities, but I'm not sure what that's going to do in rural Canada. I'll be anxious to hear what you have to say on that.

He also talked about "...expanding—and extending—the requirement for wireless companies to provide roaming on their networks to competitors".

Obviously the goal of the entire spectrum auction is to increase competition, with a minimum of four competitors in each market, which is a good thing for all users, because ideally it will mean lower costs.

He also talked about delivering on policies for transferring wireless spectrum "with the objective of promoting competition in the wireless sector."

I wonder if you could talk to those. I think much of that is more urban-based, perhaps. With regard to your point today on rural Canada, I'd like you to expand on some of that and I'd like to get your feedback.

**Mr. Daniel Rubinstein:** On the issue of tower sharing, FCM has had the position that co-location, which is the sharing of the tower, should happen as often as possible when the community wants it to happen. In an urban setting, sometimes if the land-use planning is trying to minimize the visual impact of the tower, you may not want co-location, because it tends to be more robust and have tiers of antennas. But if the municipality wants to have co-location, then it should happen.

There are provisions in the antenna protocol that we launched a few weeks ago to improve the process for municipalities so they know if a proponent has looked at co-location options. We're happy to see that the mandatory tower-sharing regulations are moving in a direction that will ensure their objectives are met.

**Mr. John Carmichael:** Is it beneficial, then, to rural communities to start fresh?

**Mr. Daniel Rubinstein:** It could be. We haven't assessed in any great detail the impact of the tower-sharing regulations. They were announced just last week. I'm not really able to speak on whether they'll have a certain impact. But there's a potential there that is welcome.

In terms of the issue of competition, as I said, competition is important. It's important for consumers. There's no obligation on new entrants to deploy in rural areas. That's why we had the submission we did on the rural deployment requirement.

On the issue of transfers, there's a potential there. It's something we're looking at, and we may submit something in writing on the consultation over the next month.

**Mr. John Carmichael:** Okay. Maybe we can address some of your recommendations.

You touched on a couple of areas that I thought were quite interesting. Your number one was with regard to connectivity standards in the north. Talk to us a bit about that. What was the recommendation, and how much deeper did it go than just that?

**Mr. Daniel Rubinstein:** I'd encourage the committee to look at the ACIA report. It goes into specific examples of how federal departments are unable to deliver services in northern communities that they normally would in the south due to either insufficient bandwidth or lack of redundancy—or latency; if you only have a satellite connection, then you can't really do real-time entry into a database, because you have a four-second latency.

The report focuses on the need to improve that connectivity standard. We have endorsed the recommendation in that report for a holistic strategy to look at northern connectivity not in an ad hoc way, so not necessarily an Industry Canada program here or a CRTC decision there. We need to look at it in a holistic manner so that when 2016 comes, and the current set of subsidies expires, there's a comprehensive solution that takes into account that user demands are increasing every year.

Right now, usually what happens is you benchmark to a certain level, you have a program to meet that benchmark, and then you're left sort of static until the next step. There needs to be a system that accounts for that constant evolution in connectivity.

**Mr. John Carmichael:** That's interesting. I mean, when you talk about the delivery of health service, that makes a lot of sense.

As far as service parity standards between communities, between north-south, how do you equate that, particularly the north-south? I'm anxious to hear how that becomes realistic.

• (1700)

**Mr. Daniel Rubinstein:** Again, it's assessing what an acceptable minimum standard is. The CRTC, as I think was mentioned in the last hour, has made a decision that the minimum standard for all Canadians should be 5 megabits of service by 2015. Obviously, if you have a program that only delivers 1.5 megabits per second, which some of the programs under the Broadband Canada fund have done, there's a gap.

Obviously the minimum level is increasing, but you do want to have a plan that if in the south the standard of 5 megabits per second is a minimum, then it should be in the north.

**Mr. John Carmichael:** Yes. I'm hopeful that's a realistic objective in the short term.

**Mr. Daniel Rubinstein:** It's a necessity. For government services, for consumers, for business, it's a necessity to have that connectivity, and for it to be real-time access as well.

**Mr. John Carmichael:** Great.

What's my time, Chair?

**The Chair:** You have a little over a minute.

**Mr. John Carmichael:** Okay.

You talked about the ICT development strategy. Could you give us a little more information on that?

**Mr. Daniel Rubinstein:** What we're referring to here is the need to bring all the partners together—the federal and territorial governments, the private sector, the municipal sector—to look at a holistic strategy for developing ICT services in the north.

Again, ad hoc funding programs have been very beneficial, but it would be far preferable to address it in a holistic manner.

**Mr. John Carmichael:** Right.

Do you have any other comments, Mr. Buda? You talked about the cuts in transfers. What cuts in transfers were you referring to?

**Mr. Michael Buda:** I was talking about a trend over the last 20 years that has seen federal and provincial responsibilities downloaded onto municipalities, and in turn.... It's mainly provincial transfers and territorial transfers to municipalities being cut.

**Mr. John Carmichael:** I was hoping you'd clarify that.

**Mr. Michael Buda:** Actually, in the last seven or eight years, starting in 2005, there's been a real turnaround in federal support for cities and communities, mainly for infrastructure investments.

**Mr. John Carmichael:** Yes, and I'd point to the gas tax as one of the key elements.

**Mr. Michael Buda:** Yes.

**The Chair:** Thank you very much, Mr. Carmichael and Mr. Buda.

Now we'll go to Madam Sgro for seven minutes.

**Hon. Judy Sgro:** Thank you.

That was a very good opening. As a former municipal councillor, I came here for that very issue, to fight on behalf of the cities. I spent two years of my first term here doing a report that I know you're very well aware of, the urban report. When I came here, you couldn't even say the word "cities" in the House of Commons. The gas tax and infrastructure and all of that came from the report that I put together.

But a big issue when I did that report...and that was then, and still now. I mean, pressures are pressures. We've got pressures on the cities. We've got pressures here. There are pressures on the provinces. It's a question of priorities. Investing in the infrastructure of our cities is, I believe, critically important for the future of the country. I don't view it as just a city issue; I think it's a Canada issue.

The issue of the rural divide has always been really difficult to figure out answers to. You won't get companies going and investing money if they won't make money on it at the end of the day. We need

doctors in rural Canada. We need more infrastructure in rural Canada. Yet it's hard to get those investments.

As this whole issue moves forward and the money comes from the November spectrum auction, should some of that money be set aside to ensure that, where we have smaller communities that are not going to benefit—that you're not going to be able to make money out of—they have access? I mean, that's where the growth will come in those communities as well.

What are your thoughts on that?

**Mr. Michael Buda:** As Daniel mentioned earlier, we think that governments—federal, municipal—should identify the needs in areas like that, the resources required to meet those needs or close those gaps. FCM's position is that those funds should be allocated from wherever and however they should be.

FCM doesn't usually tell the federal government how to spend the money. We say we think there's a need here. In terms of whether the money should be earmarked, we don't really have a position; that would be up to the government to determine. The bottom line is that if funding is required and there's a rationale for federal support for that kind of an initiative, then it's imperative that we actually develop a program to do that.

• (1705)

**Hon. Judy Sgro:** If the federal government doesn't do it, who is going to do it? Bell Canada will tell you that they offer services they lose lots of money on, but if they didn't offer it, who would? Air Canada will tell us the exact same thing. And it makes sense. They're not necessarily making money on some of this, but somewhere you have to set up some sort of condition for winning the auction. Somebody has to make sure that certain things are going to be done, because if you leave it just to the open marketplace, it isn't going to happen.

**Mr. Michael Buda:** To clarify, I'm not suggesting that FCM's position is that there is going to need to be government funding, core contributions toward building out these networks in areas where the market would otherwise not support that.

**Mr. Daniel Rubinstein:** I would add that it's CRTC policy already that where the market is not able to provide service on a market basis there would be targeted government funding to meet that gap. The federal government's position in previous funding programs, like Broadband Canada, has been based on that principle.

**Hon. Judy Sgro:** With regard to the whole issue of roadblocks in some of the recommendations you have produced, aside from various communities being resistant to the towers going up—I mean, you have to admit they don't exactly look too great, so don't look out the window and see them—you have all the other issues that people will come up with about health issues and concerns and so on.

Have you been doing some work on that particular issue, to try to overcome some of those roadblocks from people themselves—education being a part of it as well—so that they understand it? Has FCM been taking a stronger position on this, as far as doing some work on it?

**Mr. Daniel Rubinstein:** I should say personally that I've started to find towers quite attractive because I've spent so much time working on this issue in the last—

**Hon. Judy Sgro:** You actually think they're attractive?

**Mr. Daniel Rubinstein:** It's all I see when I drive down the highway.

The reason we got involved on this issue of antenna siting was because our members said a couple of things to us. One, they needed to be notified of towers before they go up, so no more surprises. I'm sure you've all seen on CBC the stories of these 14.9-metre towers that miraculously appear. Of course, it's our members who hear about it, and they don't know what's going on. That was number one.

Number two, regulations that Industry Canada has had in place since 2008 have this sort of loophole that if you're under 15 metres you don't have to have a consultation. We felt that wasn't appropriate, so we now have an agreement that the wireless sector agrees with in full. If a municipality requests that there be local consultation with the municipality, or a formal proposal, as for any other tower, or the final full public consultation, that will happen. That's why we came into it.

You asked the question about roadblocks. A lot of these roadblocks get created when you have a process that doesn't involve all the actors and creates surprises. That's what we have tried to reduce.

**Hon. Judy Sgro:** There's lots of those roadblocks, even if you don't do that.

**Mr. Daniel Rubinstein:** That may be.

**Hon. Judy Sgro:** What about the issue of working with the first nations in a bit of a partnership to ensure that they have access?

**Mr. Michael Buda:** For sure. We're not working on anything that is specific to broadband services right now, but we have a program funded through Aboriginal Affairs and Northern Development to help municipalities and adjacent first nations communities develop shared service agreements, in particular drinking water infrastructure. Shared service agreements permit cooperative approaches to everything, including broadband services. So indeed that's already happening.

There's a real recognition in the municipal sector that where governments can work together to reduce costs and improve services, they should. They've been doing it for years, and there's a growing recognition that it's important. Frankly, first nations communities are, in most cases, being treated the same as another municipality, because if you're government you have to deliver services and you don't have enough money to do it. So it's actually happening, in part through this program being funded through the federal government.

**Hon. Judy Sgro:** Good. Thank you very much.

**The Chair:** Thank you very much, Madam Sgro and Mr. Buda.

We now go to Madam Gallant for five minutes.

**Mrs. Cheryl Gallant:** Thank you, Mr. Chairman.

What number of municipalities with a population of under 10,000 does your organization represent?

**Mr. Michael Buda:** We represent 2,000 municipalities, which together represent 90% of the population of Canada. I'm going off the top of my head. The top 150 municipalities in our membership

are over 100,000. We're just doing the math here. It's about 1,500. The demographics of our members are overwhelmingly rural. So about 1,500 of our 2,000 members are 10,000 or less. They represent a little less than 10% of the population of Canada.

• (1710)

**Mrs. Cheryl Gallant:** Okay. So what exactly has your organization done to improve broadband coverage to rural municipalities of 10,000 or less?

**Mr. Michael Buda:** FCM doesn't actually build or fund broadband infrastructure, for instance, but our *raison d'être* here in Ottawa is to help the federal government, and indeed Parliament, understand how the government can work more effectively with the municipalities, and to identify emerging needs or trends that the government should be aware of and that future programs should respond to.

Going back to the early 2000s, in fact, the period that Ms. Sgro referenced, FCM began advocating for a federal role in supporting the deployment of broadband in rural communities. That led to the first rural Canadian broadband programs, and we have really maintained our focus on that ever since.

As this issue has matured, as the network has been built out, our focus has become more detailed and nuanced, so that it moved from simply building up the network to really moving to the quality of the network. Now that's proven to be the barrier and the challenge in most rural communities. Indeed most Canadians now have access to broadband, but it's how fast. In most large cities, 10 to 20 to 50 megabits per second is normal. When we speak about a new minimum of 5, if you were to get 5 in your urban condominium, you would think your Internet was broken. So we're really focused on that now.

Certainly, the recommendations we have outlined here—our work on the spectrum option and as we move forward the renewal of the programs that have expired or are about to expire—are our focus.

More broadly, we've tried, with the Government of Canada, indeed Parliament, to help the government understand the key role that rural municipalities play in the economic vitality of the country. Some of the recent resource developments in the west have really underlined how critically important it is for the government to support rural communities.

Fifteen years ago, communities in southwestern Manitoba might have been written off as declining rural communities, but of course now they're hosts to massive and major new oil developments as a result of new technology. There is a whole host of examples like that. That's the work we do.

**Mrs. Cheryl Gallant:** Reference was made to the federal gas tax rebates, which our government made permanent. Did I understand correctly that you stated that municipalities should be able to use the gas tax rebate for any purpose? Or did I misunderstand you?

**Mr. Michael Buda:** No. Right now the gas tax fund can only be used for four or five categories: roads, bridges, water, wastewater, transit, and some other things, but definitely not broadband. On the other hand, the Building Canada fund is able to be spent on broadband, and indeed many municipalities have chosen to apply for that program to build up broadband resources in their communities.

**Mrs. Cheryl Gallant:** It was my understanding that the gas tax rebate was supposed to be a green rebate, in a way, to improve the environment. While it can be argued that the information highway could save emissions, it's still not eligible for that.

**Mr. Michael Buda:** No, it's not, under the current contribution agreements, which expire in 2014. There's an expectation that the design of that program may be reviewed in the upcoming budget.

**Mrs. Cheryl Gallant:** The reason I ask is there's that 1% gap for which the geology or maybe the business case can never be made, but the municipalities see themselves that this has to be done. As you mentioned, the infrastructure dollars have to go towards collapsing culverts and so on before they connect people through the Internet.

Has your organization participated in any science-based research into the effects of the radio frequency fields on human health?

**Mr. Michael Buda:** No, we haven't. We rely on Health Canada to undertake that kind of research. We simply don't have that expertise.

**Mrs. Cheryl Gallant:** So you haven't recommended it or anything?

**Mr. Michael Buda:** No.

**The Chair:** Mr. Harris, you have five minutes. You have to keep it tight.

**Mr. Dan Harris:** It's interesting to note that the standards in Europe on those radio frequencies are much lower, in terms of the thresholds, than what we have here.

Mr. Rubinstein was talking earlier, following up on Mr. Warawa's questions, about the towers and the exemptions.

One other exemption that wasn't mentioned was the one on new equipment going onto existing towers. If a 30-metre tower goes up after a public consultation and then businesses are able to put whatever they want onto it afterwards, without further public consultation...of course, as technology evolves, the equipment being put on it will be much stronger than what was there before.

Do you not think it might have been easier if Industry Canada had just closed those loopholes, instead of having to forge a deal with all the wireless telecoms?

•(1715)

**Mr. Daniel Rubinstein:** We certainly have been active on the issue of antenna siting for the better part of a decade. We provided extensive remarks to a 2005 review of antenna-siting issues, which produced in the end the CPC.

We had clear direction from our members that the Industry Canada regulations were not sufficient. Through our normal advocacy efforts, we're trying to have those issues addressed. Obviously it's a challenging file. We didn't see a lot of progress happening in that area. We're in the business of looking for comments and solutions to the issues that are facing our members, and we had an opportunity to reach a voluntary agreement.

**Mr. Dan Harris:** Congratulations on finding a way around that roadblock.

Speaking of towers, I can also mention, too, that occasionally there is some beauty in them. In Algonquin Park, for instance, there are towers that are designed to look like white pine—

**Mr. Daniel Rubinstein:** On steroids.

**Mr. Dan Harris:** They actually blend into the background. Even in the Niagara region there are those set up on church grounds that incorporate a cross into the actual facility.

Going back to broadband, in your opening remarks you spoke about an absence of broadband, of course, being a barrier to business. Industry Canada came in and was talking about the 99% near ubiquitous coverage.

Do you find those numbers to be accurate, or is there still perhaps a larger gap that exists there?

**Mr. Daniel Rubinstein:** As far as we know, those are the numbers. We have been focusing not on coverage but on whether the coverage is sufficient to meet the demands of users, whether they be public sector, private sector, or consumers.

**Mr. Dan Harris:** So you're saying the coverage is there, but it's not enough.

**Mr. Daniel Rubinstein:** We're saying the minimum standard for connectivity has to continually be addressed. Otherwise you're benchmarking based on.... As Mike said, 1.5 megabits per second in the city would probably not be acceptable for most consumers.

**Mr. Dan Harris:** I've had to share a 5-megabit connection with 300 people in a work camp in northern Alberta, and it's definitely not enough.

Right at the end of our last meeting, Mr. Scott Smith of the Canadian Chamber of Commerce said the most important investment that government can make is in infrastructure.

Would you agree with that statement?

**Mr. Michael Buda:** Yes.

**Mr. Daniel Rubinstein:** Absolutely.

**Mr. Dan Harris:** But of course the right investments have to be made. What do you think are the most important investments the government can make, say, in the upcoming budget?

**Mr. Michael Buda:** Generally, I think I'd say our position is that the order of government that is in the best position to make the most efficient allocation decisions is at the local level. It knows the situation best and it is most accountable locally.

That being said, most municipalities are going to say that investments in transportation infrastructure are the most important for supporting the economy, and it is also the area in which we probably have the greatest needs. We have an infrastructure report card, which will show you at a national level the condition of different classes of infrastructure.

I think as Mr. Stewart mentioned, there is growing interest in and acknowledgement of the importance of broadband infrastructure. It has not traditionally been seen as public infrastructure, and that's a challenge, because it's yet another new responsibility, but it's one municipalities know they have to face.

The types of policies and regulations being discussed at this committee are exactly the kinds of supports municipalities are going to be looking for in order to expand into this area in the future, because they know it's the future.

**Mr. Dan Harris:** Excellent.

Thanks so much for coming and providing that enlightenment on those issues. It would take me more time to get into the other questions.

Is there anything you want to share in the last five seconds?

**The Chair:** Thank you very much for your testimony.

We're going to be dealing with some committee business now, so I'm going to suspend for one minute and ask everybody who is not a member of Parliament or staff to please leave the room. We'll be going in camera.

*[Proceedings resume in camera]*

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