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Chair

Mr. Dan Ruimy

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● (0845)

[*English*]

The Chair (Mr. Dan Ruimy (Pitt Meadows—Maple Ridge, Lib.)): Good morning, everybody. Welcome to meeting number 63 of the Standing Committee on Industry, Science and Technology.

Today, for our first hour, we are getting a briefing on broadband in rural Canada.

From the CRTC, Canadian Radio-television and Telecommunications Commission, we have Christopher Seidl, executive director of telecommunications; and Alastair Stewart, senior legal counsel. From the Department of Industry, we have Sue Hart, director general, spectrum, information technologies and telecommunications, connecting Canadians branch; Pamela Miller, director general, strategic policy sector, telecommunications policy branch; and Luc Delorme, acting director, spectrum, information technologies and telecommunications, connecting Canadians branch, and programming and engineering. Is that all on your business card?

Some hon. members: Oh, oh!

Mr. Luc Delorme (Acting Director, Connecting Canadians Branch, Program and Engineering, Department of Industry): I don't even have them yet.

The Chair: We're going to start off with the Department of Industry. You have 10 minutes.

Ms. Pamela Miller (Director General, Strategic Policy Sector, Telecommunications Policy Branch, Department of Industry): Thank you, and good morning, all. We really are pleased to be here today.

[*Translation*]

Thank you for inviting us to discuss access to broadband Internet across Canada.

[*English*]

As the chair mentioned, my name is Pamela Miller, and I am the director general of the telecom policy branch at Innovation, Science and Economic Development Canada.

I am going to speak to the deck that you have, “Broadband in Canada”, giving the overall overview, and then Sue Hart is going to describe in more detail the programs that our department has available for broadband.

As you know, telecom and broadband connectivity play an integral role in our country's economic prosperity, as well as in our everyday lives. Internet access is an essential service, whether it be to look for employment, register for government services, or do banking online. For Canadian businesses, the Internet is a doorway to global markets, cloud-based services, and remote workers. Governments are investing in digital infrastructure as it is also an opportunity to support economic growth, innovation, and social inclusion, particularly for indigenous peoples.

A wide variety of research has linked broadband to a number of positive economic outcomes, including GDP growth, productivity and efficiency gains, improved research and innovation, and enhanced opportunities for local communities. I don't think I have to convince you; you are all here and want to study this topic because you know how very important it is.

I just want to take a brief moment to talk about the technologies that play a role in providing Canadians across the country with broadband access. With constant advances in technology, broadband Internet services have been made available over a variety of platforms. Wired networks include fibre optics, digital subscriber lines, and cable networks, which can typically achieve the highest speeds. These networks have good coverage of urban and suburban areas. Almost 90% of Canadian households have access to at least one wired network.

Fixed wireless networks provide access using towers and wireless radios, with subscribers using antennas fixed to their residence to receive the signal. They are typically used in lower-density regions, such as rural areas, to provide broadband service where the distance between households makes it unaffordable to run wires.

Mobile wireless networks have a national footprint, helping to keep people connected no matter where they are. Satellite networks offer national coverage and are typically used in rural and remote areas that are the most challenging to reach.

In Canada, the principal driver of telecom investment is the private sector, which has made considerable investments—over $13 billion in 2015, which is very impressive. The government has taken actions to support broadband by establishing marketplace frameworks to foster competition and investment, effectively managing the spectrum to encourage the availability of mobile broadband, and providing funding for rural and remote broadband network expansion, which we'll talk more about shortly.

I am pleased to report that there has been good progress. There are certainly gaps that remain, but we have also made progress. Over the past several years, market-led development supplemented by government programs has made significant improvements in broadband coverage and speed. Virtually all Canadians have access to some form of broadband. Broadband coverage at 5 megabits per second is available to 96% of Canadians, and it is anticipated to reach 98%.

The most dramatic jump has been in the availability of higher speeds, sometimes referred to as next-generation networks. In 2015, for example, 75% of Canadians had broadband speed of 100 megabits per second, a jump from just 28% in 2011.

These improvements have been primarily due to cable network upgrades and telco investment, which are bringing fibre closer to customers' homes in large urban markets. Service providers are also making some big investments in gigabit networks. A gigabit is equal to 1,000 megabits. For example, Bell and Telus each have announced $1 billion of investment in Toronto and Vancouver, respectively, and Rogers has expanded gigabit Internet to its entire network footprint of four million customers.

Internationally, Canada performs strongly at speeds such as 100 megabits per second, and we are in fact second in the G7.

Canada is also doing very well when it comes to mobile coverage. Over 99% of the population has access to a mobile network, and 4G LTE, which allows even greater speeds, is available to 97% of the population.

● (0850)

As I mentioned investment, an important indicator is telecom investment, as it provides insight into how much capital is going into network improvements and upgrades. In this regard, Canada performs well in terms of investment for both wire line and mobile compared to our peers. Total telecom investment in Canada as a percentage of revenue is over 20%, which is above the OECD average of 15%.

If you look at the progress, there have been gains in rural and remote access as well. In 2011, 87% of Canadians had access to 5 megabits. Now it is 96% of Canadians, and it will reach 98%. New technologies, such as next-generation high throughput satellites, have also come on line, providing more capacity for users reliant on satellite connectivity.

Despite the strong progress, as we all know, there are still broadband gaps in certain parts of the country, particularly in rural and remote areas. These areas typically have lower population densities, making the business case for private sector investment more challenging. For example, 99% of Canadians in large urban areas have access to speeds of 50 megabits per second. In rural areas, only 29% of Canadians have access to these speeds.

Canadians living in rural and remote areas, such as Swan Lake first nation or La Tuque, Quebec, expect to have the same access to high-quality, affordable broadband services as Canadians living in Calgary or Montreal. They want a broadband service that meets their needs, that allows them to fully participate in the digital economy.

The north in particular is a challenge, as there are nearly 100 communities that are completely reliant on satellite technology. Many of these communities are very difficult to serve, as they can lack access to a permanent road network or the electrical grid.

Turning to adoption of the Internet, Canada does well in terms of the percentage of households that subscribe to broadband, with 85% of households reporting that they use the Internet. However, adoption rates are lower for low-income Canadians. For example, only 63.5% of Canadians in the lowest income quintile subscribe to broadband compared to over 98% in the highest quintile.

I'm now going to turn to my colleague, Sue Hart, who is going to describe the connecting Canadians and connect to innovate programs.

Ms. Sue Hart (Director General, Spectrum, Information Technologies and Telecommunications, Connecting Canadians Branch, Department of Industry): Thank you, Pam.

The connecting Canadians program was launched in 2014 to enhance broadband in rural areas and the north.

[*Translation*]

That program, which targets last-mile networks, has a goal to reach 280,000 households in Canada. That said, we expect to reach about 300,000 households.

[*English*]

The north, specifically Nunavut and Nunavik, is a separate component, as they are entirely dependent on satellite for all their communications. Back then, time was of the essence, as the satellite leases were set to expire in 2016. Today, there are 86 connecting Canadians projects under way. There are projects in every province and territory. There are 12 that are now completed, and many more will end by March 2018. All projects will finish by March 2019, when the program ends.

As an example, for the Internet company goZoom, in Renfrew County, Ontario, the connecting Canadians program allowed them to put in three new wireless towers and increase services to households. It also enabled a local sawmill in Renfrew to do real-time monitoring of its operations.

[*Translation*]

The connect to innovate program, which was launched on December 15, 2016, will invest up to $500 million by 2021 to provide reliable high-speed Internet services to Canada's rural and remote communities.

[*English*]

This program is focused on new backbone infrastructure and will also connect institutions such as schools, hospitals, first nations band offices, and others. As well, and as a result of our consultations, upgrades, resiliency, and last-mile infrastructure are eligible.

In designing the program, we conducted extensive consultations over the spring, summer, and fall of 2016. This included all provincial and territorial governments. It included private sector service providers, municipal organizations, and first nations organizations. We spoke to some mayors and councillors, other departments, and industry associations. We also held several information sessions with MPs, some of whom are in this room, as well as with the digital caucus and the rural caucus.

The application period closed on April 20, and we had an unprecedented, incredible demand of close to 900 applications to the program, requesting over $4.4 billion. These are from coast to coast to coast. Applications are currently being reviewed, and we expect that the minister will select projects by the end of the summer.

I'll turn it back to Pam.

● (0855)

Ms. Pamela Miller: I now turn to slide 12, on affordable access.

We are also moving forward with initiatives designed to help increase broadband adoption.

Budget 2017 proposed to invest $13.2 million over five years in a new affordable access program that will facilitate access to low-cost home Internet packages. As computer cost is also a barrier for some families, we have a target of providing 50,000 refurbished computers through the existing computers for success Canada program to families along with the low-cost Internet packages.

Budget 2017 also proposes $29.5 million over five years starting in 2017-18 for a new digital literacy exchange program. This program will foster more inclusive Canadian Internet literacy by supporting initiatives that teach basic skills including how to use the Internet safely and effectively to certain groups that are affected by digital divides including seniors, low-income Canadians, indigenous peoples, and those living in northern and rural communities.

Looking at other actions to support broadband, we have also consulted on a streamlined licensing framework to support the development of next-generation satellites. These initiatives are complementary to actions being taken by other government departments and agencies such as the CRTC. Chris Seidl from the CRTC is here to speak in more detail. I will just mention that in December, 2016, the CRTC established broadband as a basic service and set national broadband targets of 50 megabits per second down and 10 megabits per second up and announced a new $750-million regulatory fund to achieve them. This fund is complementary to our connect to innovate program and we will work closely with the CRTC to identify opportunities for partnership. Infrastructure Canada is also proceeding with its $2-billion rural and northern communities fund where connectivity is an eligible category. ISED has also been working with our provincial-territorial partners to leverage available funding and local expertise.

Looking ahead, we anticipate the private sector will continue to lead the way in terms of broadband investment. This approach has served Canada to date and we expect this to continue. We will be supplementing private sector investment where the business case does not exist.

As technology and competition evolve we foresee new broadband technologies coming online offering Canadians even faster speeds and more robust services. For example, we expect the wire providers to keep deploying fibre deeper into their networks and to provide higher-speed offerings.

In mobile we have seen the widespread emergence of advanced mobile wireless networks such as long-term evolution, LTE, and we expect to see continued improvement in the future. Now 5G, fifth generation, wireless technology, is the next big thing and Canada is well-positioned to be on the leading edge. The satellite industry is also making dramatic improvements with a new generation of satellites providing significant increases in capacity.

Going forward, our role will be to continue to ensure the right frameworks are in place to encourage competition, investment, and innovation. We will also continue to evaluate the need for future programs to expand broadband services and continue to work with our federal, provincial, and territorial counterparts in this regard.

Thank you very much.

The Chair: Thank you very much.

We're going to move to the CRTC with Mr. Seidl.

● (0900)

Mr. Christopher Seidl (Executive Director, Telecommunications, Canadian Radio-television and Telecommunications Commission): Thank you, Mr. Chair, for this opportunity to talk about broadband Internet services and the recent regulatory action taken by the CRTC to increase access in rural and remote areas.

[*Translation*]

My name is Chris Seidl, and I am the executive director of Telecommunications at the Canadian Radio-television and Telecommunications Commission, or CRTC. With me today is my colleague Alastair Stewart, senior legal counsel. We welcome this chance to outline the commission's recent decision concerning modern telecommunications services.

[*English*]

All Canadians, no matter where they live, should have access to broadband Internet services, on both fixed and mobile wireless networks. That commitment was made clear in the CRTC's December 2016 announcement that, in addition to voice services, broadband Internet access is now also a basic telecommunications service.

This decision confirms that modern telecommunications services are fundamental to foster innovation. Broadband will play a pivotal role in Canada's future economic prosperity, global competitiveness, and social and democratic development. A broadband Internet connection is as crucial today as electricity was to the industrial revolution, so access to these networks is vital to Canadians from coast to coast to coast. This is a major departure from our previous approach, which focused primarily on telephone voice services.

The CRTC has now established a universal service objective, which underlines our belief that broadband Internet access is vital in today's digital economy. Under this ambitious new objective, Canadians should have access to broadband speeds of 50 megabits per second download and 10 megabits upload for fixed Internet services. This is 10 times faster than the targets we set in 2011 and is a reflection of the rapid rate of technological change and the need to keep pace with our international competitors.

More than eight in 10 Canadians already have access to the new speed targets. We expect that they will be available to 90% of Canadian homes and businesses by the end of 2021, with the remaining 10% available within 10 to 15 years.

To foster innovation, we expect service providers to offer an unlimited data option for fixed broadband Internet services. Canadians need to be able to access the applications of their choice and not feel limited by concerns over data usage.

Equally important for Canadians is the mobile wireless broadband Internet access service. Currently, the latest mobile wireless technology, long-term evolution, or LTE, is available to 97% of the population. The commission has decided that the latest generally deployed mobile wireless technology should be available not only in homes and businesses, but also along as many major Canadian roads as possible.

However, as committee members are undoubtedly aware, there are areas across the country that currently fall short of these standards. Fast, reliable, affordable Internet is often out of reach for approximately 18% of households, which are typically located in rural and remote regions of Canada. They are lagging behind their urban counterparts, at great cost to local social and economic development.

To help bridge the gap, the CRTC is establishing a fund to support projects in areas that do not meet these targets. We are making up to $750 million available over five years for upgrades to existing infrastructure and new construction to provide fixed and mobile broadband Internet access services.

Where will the $750 million come from? The Telecommunications Act gives the CRTC the ability to require telecommunications service providers to contribute to a fund to support access by Canadians to basic telecommunications services. Telecommunications service providers currently provide a small percentage of their revenues to support residential local voice service in rural and remote areas. Contributions to this local voice subsidy, which are approximately $100 million per year, will be transitioned to the new broadband fund. The CRTC has launched a public consultation to set out the details of this transition away from local voice subsidy.

The new broadband fund will be technology neutral. This means that Internet service providers will be able to submit proposals featuring the technology they think will best meet the needs of the community. Our objective is to make sure that rural residents have service that is comparable to that available in urban centres, and that the solutions will support the evolving requirements.

A key feature of the proposed fund is that applicants will need to secure a minimum level of financial support from some level of government—federal, provincial, regional, municipal, or indigenous—or community groups and non-profit organizations, and they will be required to contribute a minimum investment toward their projects. The fund will rely on a competitive bidding process, based on similar programs, to minimize the contribution from the fund and maximize the outcome.

Recipients for this funding will need to demonstrate how they will deliver the targets set by the CRTC in terms of speed, capacity, quality of service, levels of government funding, and private investment. To the greatest extent possible, the fund will be managed at arm's length by a third-party administrator, based on objective criteria, and will be administered in a manner that is transparent, fair, and efficient. The CRTC will retain oversight of the fund, approve projects, and appoint a fairness monitor.

The new CRTC broadband funding regime will be designed to complement—and not replace—existing and future private sector investments and government funding within the broader funding ecosystem. This includes the government's connect to innovate program.

I would also like to indicate that we currently work closely with Innovation, Science and Economic Development Canada in the collection and sharing of data concerning the state of broadband deployment. In addition, we fully expect the connect to innovate program and the new CRTC funding regime to complement each other, leading to a significant improvement in broadband access across the country.

The details surrounding the CRTC's broadband funding regime are still being finalized. We have launched another public consultation to develop the new regime. The consultation is examining how the fund will work and other matters related to its establishment. We are seeking input on the funding framework, including the eligibility and assessment criteria for proposed projects, and the governance, operating, and accountability framework.

● (0905)

[*Translation*]

Anyone can comment on the issues set out for consultation. Stakeholders in the fund—such as Internet service providers and public funding bodies at all levels of government—and Canadians are encouraged to provide their comments. All parties have until June 28 to submit their interventions.

Given that the consultation is ongoing, I would note that we are limited as to what further details we can provide you with at this time.

We expect to issue a decision in early 2018, after which the third-party administrator will be established and the broadband funding regime will be implemented. It is expected that the fund will be operational in spring 2019.

[*English*]

As promising as these developments are, Mr. Chairman, it is important to understand that the availability of broadband Internet service is just one aspect that helps Canadians to participate fully in the digital economy. The commission has identified further gaps regarding the adoption of broadband Internet services that are uniquely critical but outside of its core mandate.

In our report to support the government's innovation agenda, which was submitted last December, we outlined affordability and digital literacy as barriers to connectivity in many communities, especially for those among indigenous communities and across Canada's north.

The government's most recent budget outlined two new programs to tackle these gaps, one to teach basic digital skills, another to help service providers offer low-cost home Internet packages to low-income families.

Extending broadband coverage to underserved households and businesses requires investment from the private sector in some cases and, in more difficult cases, public sector support. There is much work to be done. The efforts to close these gaps require a shared leadership and collaborative approach between all parties.

The CRTC universal service objective can be achieved only with the help of different levels of government, including municipal and indigenous governments, the telecommunications industry, and non-governmental organizations.

One thing is certain: closing the gap will be expensive. Our estimates show that many billions of dollars will need to be invested to fully address the broadband Internet access services availability gap in Canada. There is no denying this will be a daunting task. The CRTC's new universal objective is one of the most ambitious in the world, and in a country the size of Canada with its varying geography and climate, there are unique challenges to offering similar broadband Internet access services to all Canadians.

We don't expect to get to the 50/10 Mbps standard in one leap. Providing access in more difficult underserved areas is expected to be accomplished in incremental steps.

The commission was careful to provide enough flexibility in its regulatory framework to support the efforts of other parties with a contribution to make. We want to encourage the continued development of private and public sector initiatives.

[*Translation*]

Given the importance of broadband to Canadians' participation in the digital economy, we are confident that together we will be successful in meeting this important challenge.

[*English*]

We would now welcome any questions you may have.

The Chair: Thank you very much.

Questions will abound.

We will start off with Mr. Longfield.

You have seven minutes.

Mr. Lloyd Longfield (Guelph, Lib.): Thanks, Mr. Chair.

Thanks, everyone, for coming today.

It is a big topic, and we're looking at a study that we'd like to get focused in the right areas and that could help with the work you are doing.

We visited the States. We were in Washington a few weeks back, and we heard a lot about harmonization between Canada and the United States. We had a discussion about a 600 MHz spectrum. We heard that Canada was a leader in 4G and that now the States is ahead of us. We talked about the 600 MHz spectrum as being important for video and being important as we move toward 5G, and again the U.S.A. is ahead of Canada on the 5G.

What are we looking at from either CRTC or the others in terms of keeping up with the States or getting back into a leadership position when it comes to spectrum?

● (0910)

Ms. Pamela Miller: I'd point to a number of initiatives we have done for spectrum management in Canada. Since 2008, the government has more than doubled the amount of spectrum available for commercial mobile services through the spectrum auction AWS-1 in 2008 as well as auctions for 700 MHz AWS-3 and 2500 MHz. These spectrum licences include deployment conditions to ensure the spectrum is put into use in a timely manner.

Building on these efforts, we are in the process of repurposing the 600 MHz band for mobile use. As you know, the band carries signals well over long distances. It's excellent for delivering commercial mobile use. We will be conducting a public consultation on the licensing rules at a later date, and, as you noted, we are in very close contact with our FCC counterparts on this.

Concerning 5G, it is an important new technology that will be a key driver of the Internet of things and that involves a significant increase in speed and the number of connected devices, and, yes, absolutely, the government has an important role to play in leadership regarding spectrum management, privacy, security, and standards development. As well, 5G will be a consideration in our approach to digital policy under the innovation and skills plan.

We are very much on top of these issues and in very close collaboration with our FCC counterparts on these issues.

Mr. Lloyd Longfield: Thank you for the details.

For things like autonomous vehicles, precision agriculture, some new applications in rural and remote areas, or even being able to drive a car across the border, is this where you're working with the FCC, in terms of the Internet of things and new applications?

Ms. Pamela Miller: We've always had a close collaboration with the FCC on border frequency issues and interference issues. It's a long-standing management issue we've always had with the United States.

Mr. Lloyd Longfield: Okay. Thanks.

I'm looking for gaps. There are a lot of things that are being done in this area. A lot of investments have been announced.

The Americans have a system about which we heard that every American pays a $1.50 on each bill and it goes into a fund. It sounds like our fund is going to be done differently, but it's still in development. So we couldn't really study that because of the proposals that are on the table.

Am I understanding that correctly?

Mr. Christopher Seidl: Yes.

Concerning the CRTC program, we do have an open consultation right now that will define the details. The commission has defined certain aspects of the program. One key component of that is it includes fixed broadband, so your wire line connections into the home, but also mobile broadband, so mobile connectivity. Those different technologies are eligible for the funding from this program. We are working through the details of how to evaluate the project proposals, to set eligibility criteria, and to decide how to manage the fund going forward.

Yes, the program has been defined, the objectives defined, but the details are still being worked out.

Mr. Lloyd Longfield: I'm trying to look for what we could be studying that isn't currently being worked on. The 18% of households that don't have access.... We've heard 97% numbers, 99% numbers. Some of the large telcos say that we're all covered. We always say, at what cost? Is it affordable?

Is there an affordability study that we could do? The 18% of households, is that something that could be picked up on? Or is that something that you're working on already, that you're ahead of us on?

Mr. Christopher Seidl: I think as part of the project of designing the fund we're also working closely with ISED to determine where those 18% are specifically. We will be developing detailed information on the actual state of broadband deployment at the new targets that the CRTC has set. We will be working that information.

When we do go out and do a call-out for projects, we'll have to identify which areas are eligible for the projects. That will be based on the data that we collect from the service providers themselves across the country and develop.

Back to your earlier point in terms of where the funds come from, as I mentioned, we get it from telecommunications service providers. They get it from their revenue, which obviously comes from some portion of what Canadians are paying into their broadband services and others, all telecommunications revenue.

● (0915)

Mr. Lloyd Longfield: In my area, in southwest Ontario, there's a SWIFT project that's being worked on with the Province of Ontario, federal government, and municipalities with fewer than 100,000 people. Is a federal-provincial study looking across Canada, or are federal agencies working with provinces across the board? Is that something we need to study?

Ms. Sue Hart: We have an ongoing working relationship with all the provincial and territorial governments in terms of looking at what their priorities are. As we're assessing applications, we're speaking to them about what their priorities are before the minister selects projects. In terms of the gap, where we really will complement nicely with the CRTC fund is that once our projects are selected then we would recalculate and relook. Assuming that those projects are successful then, where is the remaining gap? That will help the CRTC to look at where they need to focus their $750-million fund so that the timing flows nicely that way.

Mr. Lloyd Longfield: Thank you all.

The Chair: We're going to move to Mr. Dreeshen. You have seven minutes.

Mr. Earl Dreeshen (Red Deer—Mountain View, CPC): Thank you very much, Mr. Chair.

Welcome, everyone. We certainly appreciate having you here today. As Mr. Longfield had mentioned earlier, we spent some time in the U.S. to take a look at what they are trying to do. We recognized when we were there that a lot of issues that Canadians are going to have to deal with are going to be cross-border as well.

I think the first thing we want to make sure is that regulations we have here in Canada are also attuned with those in the U.S. Of course, that means organizations such as yourself and FCC are going to have work closely.

I'm just wondering what type of co-operation you have at the present time and whether you are making efforts to ensure that, as we try to deal with a North American market, you're able to ensure that flexibility exists.

Ms. Pamela Miller: In ISED, there is a long-standing coordination group with the FCC that exists in the spectrum information management section of the department. I don't want to put an exact number of years on it, but it's very long standing. There is a well-known need to have cross-border frequency collaboration, both for us and for the United States. There is a well-established and well-functioning system in place. Also, on an officials level, we are in contact with the FCC officials.

I would say that we have very good alignment in that regard.

Mr. Earl Dreeshen: With some of the discussion about self-driving cars, trucks, and so on, I think people look at it and say, "What's going to happen when you go across the border, in terms of where the data lines are?" That's one of the things, as we go through the study.

It has been said that you're looking at setting in stone what the regulations are going to be and going from there. I think the hope is that we recognize all the possibilities as we move forward in the Internet of things to make sure that we haven't already carved out a position and don't have that flexibility, and to make sure that we have the cost relationship so that Canadians aren't disadvantaged.

Could you quickly comment on how that might work?

Ms. Pamela Miller: Certainly. In general, the Canadian approach to spectrum management is called "fast follow", given that we are adjacent to the United States and they have the market. They have the critical size of the market. We can't afford to have our own rules and regulations in Canada, so we very much look at it on a North American basis. Our typical approach to any spectrum issues is, as I said, the "fast follow the United States" approach.

We don't try to carve our own Canadian approach. We look at it in an integrated, holistic North American market approach.

Mr. Earl Dreeshen: One of the issues you mentioned.... Coming from a rural and remote area of Canada, when you're driving into town, you're probably going to lose the cell coverage two or three times. These are the kinds of things rural Canadians see. If you happen to be on the main lines.... I noticed this in some of the discussions we had, and we'll make sure we have those main roads covered, but there is a lot of Canada that is not on the main roads.

We're looking at telehealth, distance learning, and agricultural usages. We've had discussions about how companies like John Deere actually make more money on their data than they do on their steel. These are the kinds of things that the future is going to have. That's where these machines are being used. It becomes more and more important that we have programs that are going to allow for that.

I guess part of why we are having this study is to come up with some of the concerns and issues that people have and present this to you before September 2018, or whatever it is, when you determine what the policies are going to be. The hope is that we will be able to give the information to you and that, as we study this, there will be the flexibility that's required.

I have just a couple of other questions. Have you done a lot of work on rural communities to see what the advantages are of improving the speed and coverage that are required, from an economic perspective? Does anybody discuss that with you?

● (0920)

Ms. Pamela Miller: Yes, very much so. In fact, as we put together our programs and our gap assessment, a critical part of it is to know the benefits and how people need the technology. We use a couple of different types of sources. There is economic literature, which will point to increases in employment, investment, and economic spinoffs. Based on some of our past programs, we also have case studies and examples of where there has been success in terms of having broadband availability. Having a need and having the benefits for the community are very important aspects of this.

Looking to the new program, I think we are looking for even better benefits, because we're going to be getting high-speed capacities. It's going to be a high-speed backhaul right into the community. We haven't done that type of program before. I think we're looking to get even higher benefits—more bang for the buck, you could say—out of that approach.

Mr. Earl Dreeshen: What has been your communication strategy with rural communities? Do you have different organizations that are able to come to you, or do you go to them so that you can determine what the needs are? How is that structure set up?

Ms. Sue Hart: I also want to comment on your earlier question. With the connecting Canadians program, as some of those projects are now being completed, we will be doing some case studies to see what some of those benefits are in the communities. One example was the goZoom in Renfrew that I mentioned in my opening remarks.

I agree with you. For the design of this program we focused our analysis on the gaps in communities. You're quite right in that our analysis showed that many communities across the country are far from a backbone network, which is why, through our consultations, we heard loud and clear the confirmation that where we needed to focus the new programs was on backbone networks to bring the big pipes to communities, which will facilitate and complement a continued expansion to the last-mile networks. In terms of the communication, we have an ongoing working relationship with the provinces and territories to talk about priorities and how things are going.

I'm not sure if that answers your question.

Mr. Earl Dreeshen: Thank you very much.

The Chair: Mr. Masse, you have seven minutes.

Mr. Brian Masse (Windsor West, NDP): Thank you, Mr. Chair.

Thank you for your presentations today.

The first thing I'll start with is a definition of "access" and "measurement". I think in general a lot of this is coming down to a societal question as to the cost, what a consumer should get, and their rights with regard to speed and type of service.

Taking over from Mr. Dreeshen's discussion about the rural community, for farming, for example, if we're all going to pay through service programs, in an area like mine, you have a number of people who decided to leave the city because they don't want to pay taxes for bus service, taxes for water treatment facilities, or for a number of things, and went to other municipalities that had lower taxes because they didn't have to pay for services in a city. Is there an analysis of how much goes to connect a place like cottage country, where we're worried about Buffy and Zane getting Netflix on their boat, versus someone in a farming field who actually uses a link to their tractor? What are the decision-making processes to determine if there's a differential between the two, and how is that measured with regard to results?

● (0925)

Ms. Sue Hart: When we look at the applications, the assessment of applications looks at what the benefits to the community are and what the level of improvement to the community would be. Something that is a project for cottages will not fare as well as a project that is going to help bring high-speed Internet access to a community that is dependent entirely on satellites and they will use it to connect to a hospital, to telehealth, and maybe tele-learning. We would be looking at that in terms of the assessment of the applications.

Mr. Brian Masse: Is that overseen by the minister? Who sets those regulatory assessments in terms of prioritization?

Ms. Sue Hart: As part of the program, we've set criteria for assessment.

Mr. Brian Masse: Who's “we”?

Ms. Sue Hart: I'm sorry, with ISED, the Department of Innovation, Science and Economic Development.

Mr. Brian Masse: Okay, I have an idea of where it's coming from. I'm glad about what you're saying. I just want to try to think about how the decisions are being made.

Lastly, connected to that, for example, if you have to do that project, do you set and test a single site that now receives service or do you test the entire region? How do you measure the assessment of the services coming in, in terms of providing a project, and the circumference around it that is applied? Are there multiple target zones in a target area that's been selected that starts the evaluation? Is there a conclusion measurement to see whether it's worked or not?

Ms. Sue Hart: Luc is the director of engineering, so I'll turn it him.

Mr. Luc Delorme: In terms of connecting Canadians, which was mostly a household-based project, it is area-based. We keep maps of coverage of existing networks that we share with our colleagues at the CRTC, and they provide us a lot of information on the wire line, and we have information on the wireless. We have a fairly comprehensive database of existing services and speeds and costs, since you mentioned affordability. We keep all that, and we identify where the gaps are.

In terms of the new projects, when we evaluate them, our goal is to fill those gaps while trying to minimize overbuilding existing service, obviously. Once the projects are in progress or nearing completion, we actually do some site visits and we will do some measurements and see the deployment and how that's been built.

In terms of the new program, connect to innovate, it's based on bringing fibre to communities. In many cases the distribution network already exists, but the big pipe, as Susan mentioned, isn't there. That is actually easier to keep track of, because you really need to bring it to one point in the community and then everyone benefits from that. We also plan to be doing some site visits as the projects are completed to ensure that follows through.

Mr. Brian Masse: With this goal of affordability, we're now increasing the amount of content that can be funnelled to a consumer, either a business or an individual. That means greater incurred costs for the Internet service providers, in terms of the consumer. They'll charge more because more data is now flowing to the consumer.

What do we do with this type of issue? For example, where I live I'm very familiar with the border situation, because we have roaming charges and there is the whole battle for consumers over roaming charges. I can be up to two kilometres away from the United States border and my device will pick up an American signal and that could lead to roaming charges, and so forth.

Here is the thing: we're growing the availability of it, but the providers are the real beneficiaries as we move more product through a subsidized system, which they then charge fees to. Again, when Netflix movies become more high definition, that means there is more data; more data means that people have more costs, and so forth. What do we do about that in terms of fairness for consumers?

I'll finish with this. The CRTC's great example was the basic cable package. We saw the response to that, which I thought was a fair way to approach cable, but they went out and it became a significant problem. Without going into details, the same thing can be happening here. We subsidize the expansion, the expansion leads to the flow of more product for the private sector, the private sector then charges more to the consumer, and it's an incurred cost from there on. I can tell you, if you have a teenage daughter and the Wi-Fi goes down, it's like Armageddon.

I'll stop there, but the end result is more consumer costs.

● (0930)

The Chair: Thank you.

We're going to move to Mr. Baylis.

Mr. Frank Baylis (Pierrefonds—Dollard, Lib.): Thank you.

I'm trying to understand something about coverage and what we are and are not getting done. My riding is in Montreal. When this was first brought to my attention, I didn't know there was an issue, because I don't have any rural constituents.

When I first looked into it, I got maps, such as the one presented here that we're looking at, which says, for example, that 99% of households are covered at 1.5 megabits and 96% are at 5 megabits. I said, “Well, it seems to me that we have pretty much most of the heavy lifting done.” It's a very small part—4%—of our huge country that has to be done. Then, every time I spoke to members of my caucus who were in rural ridings, they were up in arms about the lack of service, so there's a dichotomy here.

There's a dichotomy in the numbers I'm seeing and what I hear from my colleagues, and in fact even in your statements. I'd like to point it out, and I'd like to try to understand it.

For example, Mr. Seidl, you said in your testimony that in 2011 your objective rates were 10 times less. You have 50-megabit rates now, which is your goal, so 10 times less is 5 megabits. In 2011, 5 megabits was your goal, and I look at that here, and we have 96% done, so it's actually pretty good.

However, when I look at the questions and what I hear through the testimony.... You gave the example of Renfrew. Renfrew is 100 kilometres from our nation's capital. It's not a small town. It's 8,000 people plus, and you're giving that as a great example of how we were able to help Renfrew. Well, it doesn't add up to saying that 96% of the country is covered if we're giving an example of a decent-sized town 100 kilometres from our nation's capital and saying to look at what we have been able to do for them. There's something wrong there.

Also, then I hear that we have 900 applications asking for $4.4 billion in our latest program. Well, again, if we have 96% covered, where's that demand coming from? I hear that the CRTC wants to put in a $750-million fund, and you're hoping to leverage that to get a heck of a lot more out of it. Where I'm struggling with here is to understand these numbers I'm given here and what's clearly not in line with what I'm hearing from my colleagues and even in your examples.

Finally—and I'll start with you, Mr. Seidl—you said in your testimony that for approximately 18% of households service is out of reach. Again, I don't see the 18% here. The only place that has 18% is that 82% have 50 megabits. Is that what you are referring to?

Mr. Christopher Seidl: Exactly. We set the target back in 2011 that by the end of 2015 everybody would have 5 megabits down and 1 megabit up. It was an aspirational target. We didn't put any funds towards that, and we figured government and private sector would achieve that. With the infrastructure that's out there and the wireless capabilities, we pretty well got to the high nineties for that capability.

With regard to our last review, which culminated in the decision in December, there really was a very explosive growth on broadband in both fixed and mobile requirements. The commission set an aspirational target of 50 megabits per second down. The upload is very important as well for businesses and other applications, so we said 10 megabits per second up, whereas before it was 5 megabits down and 1 up. That is where we're at right now. We're at around 82% right now. You could equate that, essentially, to wherever you have cable or a DSL/fibre connection into the household.

Outside of those regions, where you're basically relying on satellite or fixed wireless connections, or slower-speed DSLs—digital subscriber line technologies—you don't have the 50 megabit per second service offering. That's where the 82% kicks in. That's really in the main urban centres across the country. Anything outside of the main urban downtown core or suburbia area does not have the 50/10, and that's where the gaps are. It's not far from—

● (0935)

Mr. Frank Baylis: That's where the complaints I'm hearing are coming from.

Mr. Christopher Seidl: Exactly.

Mr. Frank Baylis: It's the 18% to 20% of people who live outside of the core big cities.

Mr. Christopher Seidl: Also, if you go to the satellite-dependent communities, it's obviously just exacerbated in terms of what they can get. Daily usage is obviously a very important aspect, because they are limited in how much they can use. We heard tremendous testimony at the hearing we had last April, which was three weeks long. It was the longest telecom hearing I've been involved in. We heard that we have larger households in the north, satellite dependency, and a high cost of that capacity. It's really affecting people's ability not just to connect but to actually have devices that are up to date.

Mr. Frank Baylis: So it's fair to say that when you first started this six years ago, that seemed like a nice number. Then Netflix happened, is that what—

Mr. Christopher Seidl: Obviously video is a large proportion of the usage, but no, we were looking forward to the Internet of things and other applications. Once you start connecting devices and precision agriculture, everything else, you'll see a further explosion of the requirements. That's why the upload is so important.

Mr. Frank Baylis: So that changed.

I'll come to Ms. Hart. I want to understand the demands that you have for this $4.4 billion. Is this to bring those communities up to that rate of 50 megabits, the rates that were set by CRTC?

Ms. Sue Hart: We did not set a speed target when we designed the program.

I just want to say, I gave goZoom as an example because it's a completed project, and there are not that many completed but we do have some that are remote. Having said that, the program is focused on new backbone. Bringing new backbone to communities is going to enable the further expansion of last-mile networks, of mobile networks. We fully expect that many of the projects will hit the 50-megabit target speed.

Having said that, there may be projects selected that don't necessarily hit that speed because there are some parts of the country where it's really tough to get there.

Mr. Frank Baylis: Even these new projects that you're looking at may not necessarily hit 50.

Ms. Sue Hart: If I think of Nunavut, we have a number of applications for Nunavut. Whatever is selected, it's not going to hit 50 megabits per second. We will be looking at the scalability of the technology. Part of our comparative criteria is to look at if it is scalable to do something better and faster in the future.

The Chair: Thank you.

Mr. Nuttall, you have five minutes.

Mr. Alexander Nuttall (Barrie—Springwater—Oro-Medonte, CPC): Thank you.

One item that was outlined very early on after the election, when I met with a few of the telecom providers, was that the country—and they had a map—is broken into territories, almost, when RFPs were put out and broadband was awarded to certain companies. One of them, they pointed out, was that there's a Toronto district—I'm going to call it a district for lack of a better word—and that included Stouffville and other rural areas around Toronto. When the companies bid on access, the result was, in that district, that their investment would be in downtown Toronto because the ROI in an urban area was far stronger than it would be to expanding its network into a rural area like Stouffville, or now north of Stouffville.

I'm not sure whom to ask the question to. Can you comment on that, as to how these are awarded, how you break up the different areas across the country when these RFP processes are undertaken?

● (0940)

Mr. Luc Delorme: I can speak to the programs that our department, ISED, is running. We're not based on an RFP process. I think you might be referring to spectrum auctions, possibly.

Mr. Alexander Nuttall: Yes.

Mr. Luc Delorme: In terms of actual broadband programs, the way we've run connecting Canadians, and we're also running connect to innovate right now, we've put out maps of areas where, throughout significant data collection analysis, we've identified where the gaps are. We then invite the applicants, which in the case of the latest program were telcos, ISPs, municipalities, provincial governments, etc., to put forward applications for those areas. They're then reviewed competitively. Everyone is essentially free to apply for whatever areas they wish. We're not breaking it up into these blocks, saying you have to do Toronto and Stouffville. It is free to the applicant to choose where they want to go through our processes.

Mr. Alexander Nuttall: When the bids for spectrum are going on, is it not the CRTC that determines those?

Ms. Pamela Miller: That is done by the spectrum information technology branch at ISED. They are called tier sizes. It depends on the type of spectrum being auctioned and the particular auction parameters. There are different tier sizes used for different auctions, and there are also different types of deployment conditions.

Mr. Alexander Nuttall: Why would we ever have Bay Street competing with Yonge Street in Stouffville?

Ms. Pamela Miller: As I said, it depends on the type of spectrum that's being auctioned. There are different ways the tier sizes are determined. Some of them can be tier 4, which are small. Tier 1 is national. Tier 2 is more provincial.

Mr. Alexander Nuttall: Right, but if our goal is to expand the network, and that's part of the reason we're going through the process of these bids, why do we have very rural areas competing with urban areas?

There's a second example I have for you because it's easy to use Toronto. My riding in Barrie is in really good shape. When you step outside of Barrie, it is bad because there's one of these borders there. Because of that it just goes to the urban centre, which is within that area that I think goes all the way up to Thunder Bay, Sudbury, and Timmins. You have, say, Oro-Medonte fighting with all of these other places for access to broadband. It doesn't make a lot of sense to me.

Ms. Pamela Miller: There are deployment conditions. In certain auctions that have had really great rural coverage you have deployment conditions that will push it further into that tier size so it will have obligations for more deployment.

If you have a specific example you want to refer to us, I could refer it to the experts in the spectrum part of the division of ISED.

The Chair: Thank you.

Mindful of the time and because I know there are still a lot of questions, I'm wondering if our witnesses have the ability to stay until about 10 a.m. just to finish off the round.

Mr. Christopher Seidl: Yes.

The Chair: Are we okay to continue? Good.

Committee, we're good? Excellent.

We're going to move to Mr. Jowhari, for five minutes.

Mr. Majid Jowhari (Richmond Hill, Lib.): Thank you, Mr. Chair, and thank you for coming.

I have two questions. I want to talk about the spectrum and the net neutrality, and the discussion that's going on south of the border and the potential impact on us. The other one is really on the timing for your assessments of all the applications that have been in front of you. Once that's completed, you will have a better understanding of where the focus areas are going to be, which could act as a base for us to be able to see how we can launch a complementary report and initiative here.

Let's start with net neutrality. Anyone on the panel can talk about the net neutrality spectrum and the impact of your trying to line up ISED with FCC.

● (0945)

Mr. Christopher Seidl: I can talk to net neutrality. The commission just issued a decision recently on another portion of our regulations concerning net neutrality.

We have had net neutrality regulations since 2009 in terms of not blocking, or slowing down, or prioritizing certain traffic over other. We don't want the ISPs to be gatekeepers in terms of what Canadians can access.

A recent decision dealt with the concept of zero ratings where you don't charge data charges for certain applications, and we ruled that also as something we would look on unfavourably because we don't want gatekeepers preferencing certain content over other content.

Mr. Majid Jowhari: Do you know where the U.S. is heading on that?

Mr. Christopher Seidl: The U.S. was on a path similar to ours. They had a lot of legal issues to get through in terms of the Title I and Title II, if you're familiar with the debate that's going on there. Obviously the latest view from the FCC is to change that direction and go another route. We'll see how that plays out with respect to the evolution of the innovation in the larger market.

Mr. Majid Jowhari: Can that impact us?

Mr. Christopher Seidl: Certainly it affects the ecosystem in application development. Certainly we're part of that ecosystem. In Canada we've obviously set strong net neutrality rules to allow innovation to occur at the edges of the smaller providers and not be dominated by the larger application providers, let alone the large ISPs.

Mr. Majid Jowhari: Fair enough.

I have another two and a half minutes. Let's go on to the gap and when that process of assigning that $4.4 billion is going to come.

Really what we are trying to do is find a focus area that's complementary to all the work that has already been done, is being executed, and is being planned. I hear that in 2019, we'll finish the majority of the projects.

I see projects going on. I see projects being planned. I see different studies that have been done. On this side we are trying to figure out where we should focus our report or our anticipated work we are going to do for the committee.

Ms. Sue Hart: You are correct that for the first program, connecting Canadians, the projects will end by March 2019. For connect to innovate, we have quite a high volume to assess.

Just to elaborate a little bit, we're involved right now in the screening and assessment. We look at various things, including the commitment to open access, which is a condition of the program. We have essential assessment criteria that look at the technology solution. There is a team of engineers who look at the technology itself, whether it will actually deliver the proposed benefits that are in the application, and whether the technology is sustainable.

On the project management side of the equation, we're looking at whether there is a demonstration of this project actually being implemented.

Mr. Majid Jowhari: With one minute to go, I want to bring it back to when. Is it going to be, say, August of 2017?

Ms. Sue Hart: We're targeting to be able to brief the minister toward the end of the summer. The assessment will help to inform him on a selection of projects.

Mr. Majid Jowhari: Will that be some time in October?

Ms. Sue Hart: I think it would be some time toward the end of the summer.

Mr. Majid Jowhari: By early fall we would be able to see where the new landscape is going to be, based on the approved projects. Is that a fair statement?

Ms. Sue Hart: The projects initially are what we call “conditionally approved”. They're conditionally approved based on us finalizing the due diligence with the applicant in negotiating a contribution agreement. We will do the final checkup to see if they actually have the financials to do it and a final check of the statement of work to ensure that they have the logical network design and that the design is appropriate to be able to do the project.

With that information, we would then recalculate what the gap would be, assuming that these projects are successful.

Mr. Majid Jowhari: And the time frame would be the end of summer.

Ms. Sue Hart: The time frame, I think for all of that work, is taking us into the fall now.

Mr. Majid Jowhari: Thank you. That's what I was looking for.

The Chair: Thank you very much.

Mr. Lobb, you have five minutes.

Mr. Ben Lobb (Huron—Bruce, CPC): Sorry for being late. There was a grade 8 class coming through, so I had to swing by and see some of the early risers this morning at Parliament Hill.

Forgive me if you already mentioned this. I wonder if you have a definition of “rural”. I think “northern” is pretty self-explanatory. Does it matter if it's rural in southwestern Ontario versus eastern Ontario or Saskatchewan?

● (0950)

Ms. Sue Hart: We define “rural”—and we use Statistics Canada data—as populations that are fewer than 30,000 people. Our maps highlight the communities that are eligible. Most of those communities are far smaller than that. They're actually about 100 or 150, and some are fewer than 100, but the definition itself that we use to calculate which communities would be eligible is a population of 30,000.

Mr. Ben Lobb: Is the $750-million broadband fund to be leveraged with...? For example, in my area, we have co-operative telecom companies. Is it to be leveraged? Is it 50:50, 3:1, or 2:1? How are you looking to do that?

Mr. Christopher Seidl: That is the CRTC fund that we put in place. As I mentioned earlier, we have an open consultation now, so those details are being worked out.

Part of the fund design means there needs to be some level of government funding on the table as well. There is some pre-selection or prioritization from some government entity putting some money toward the program. That will help identify that area.

Mr. Ben Lobb: My other question is about “last mile”. We hear “last mile” all the time. We've had the minister come a couple times and give different explanations of what he sees as “last mile”. What is the definition from CRTC or Industry Canada of exactly what “last mile” is?

Mr. Luc Delorme: Our definition of “last mile” is essentially that where a high-capacity pipe comes into a town and terminates in a building or something, anything that goes from there to the household, whether it's via fibre, cable, or wireless, is all considered “last mile”.

If I can give an analogy, the backbone is the highway and the off-ramps, and the last mile is the surface streets. It's typically anything that connects the households to the backbone.

Mr. Ben Lobb: Basically, then, if I'm understanding it, in very crude and high-level terms it's a big pipe to a big building in a small town. That's the idea of last mile?

Mr. Luc Delorme: No, the last mile is essentially from where that big pipe ends to then go to all the buildings.

Mr. Ben Lobb: Okay, so it's the last farmhouse on the last quarter-mile on the last concession. That's the last mile?

Mr. Luc Delorme: Yes, or it could be in town. That's the longest mile, good point, but it could be.... For example, even in urban Ottawa there are these fibre points of presence within neighbourhoods. You might see these little green pedestals on people's front lawns or backyards. From there, the DSL or the cable splits out to all the houses. That split-out is the last mile.

Mr. Ben Lobb: Okay, fair enough.

I have another question. In my area, Xplornet has received some grants, maybe $2 million by now, to provide Internet by, I guess you'd say, satellite. I know there are a couple of different ways to deliver this, but is Xplornet by satellite something that we can see being able to meet your target of 50 megabits per second?

Ms. Sue Hart: That Xplornet project is a connecting Canadians project, but it is not satellite. It is the technology we refer to as fixed wireless, so that's where you'll see towers with radio technology going to receivers on the households. That's what we called fixed wire technology.

Luc, what speeds would that reach for that project?

Mr. Luc Delorme: Xplornet can reach speeds of up to 25 megabits per second download through that technology for most of their clients for that project that's currently under construction.

Ms. Sue Hart: That project won't be completed until well into 2018. There's also another connecting Canadians project that touches your ridings from Tuckersmith. It's very small. It was a fibre-to-the-home project. It's also completed, and I think it impacted about 30 to 50.

● (0955)

The Chair: Thank you very much.

We'll go back to Mr. Baylis, for five minutes.

Mr. Frank Baylis: I'd like to commend you, first of all, because I can see you're chasing a moving target with all the innovation that's going on. You have demand changing, technology changing, and you're trying constantly to put these things together. It's not an easy challenge.

If I understand the connect to innovate program.... You're saying by the end of summer you should have a pretty good idea...or go to the minister, and some decisions will be made. That being the case, I assume, Mr. Delorme, you'll get to at least try to reproject your map —we come back to that 18%—and it might change again.

Is that fair to say?

Mr. Luc Delorme: It is fair to say that. We will reproject the map. To reiterate what Ms. Hart was saying earlier, the majority of the focus for the connect to innovate program is on the backbone portion. There may not be an immediate jump in last-mile speeds, but we're enabling that to happen. In many of these communities you would never be able to do 50/10 unless that backbone came in first.

Mr. Frank Baylis: It will give us a much stronger idea of where we are at with the 50/10 objective.

The Clerk: It gives us an idea of where 50/10 is now achievable, where it was not at all achievable previously.

Mr. Frank Baylis: Ultimately, this comes down to money, so when that's done, let's say at the end of summer, beginning of fall, then as you said, it's going to dovetail in with the CRT program, which is for $750 million, and you're going to be able to sit down and relook at it.

Is that the idea?

Mr. Christopher Seidl: Yes, and the private sector is also building out in that time frame, as well, so we'll some movement. That's why we set a target of 90% getting to the 50/10 by 2021, and that's based on the private sector continuing to invest, other government programs, and building last-mile, or in this case, mostly backbone infrastructure. Then the CRTC funds should help fill in further gaps to try to get us to that point. There's still work to be done beyond that, so I fully expect other programs to come on board later to help finish the job.

Mr. Frank Baylis: Once we have that, you're saying other programs may be necessary. That's maybe where our committee could come in and see what input we could have to finish the job, if I could say that.

Mr. Christopher Seidl: Absolutely. Even some of the larger connectivity projects.... The $750 million is our contribution. Obviously, there will be private sector and public sector aspects to that, so that $750 million will grow to whatever amount is matched in that. There are some projects that are in the hundreds of millions of dollars that really are nation-building, and that's where there is a focus needed.

Mr. Frank Baylis: Would it be good for us, once you have an idea of where the connect to innovate program money is going to go, to take a state of the union to check out where things are, knowing that the CRTC program is coming? This would allow us to see where we can go, how we can assist, and what further work needs to be done.

Mr. Christopher Seidl: I think that would be appropriate, yes.

Mr. Frank Baylis: Mr. Chair, I think Mr. Longfield has a question.

Mr. Lloyd Longfield: Thanks for sharing your time.

I want to build on where Mr. Lobb was heading, around satellites. When we were in the States, we heard testimony from EchoStar satellites, and they talked about using Xplornet as a reseller on their satellite network. We heard about GEOs and LEOs, satellites going around the equator, but they're now launching 4,200 low-orbit satellites on the north-south, on a polar axis, which could help Canada's north. They talked about the work they're doing in India and in Brazil and about how we could maybe work with satellite technology.

Is satellite technology something we're including in the connect to innovate or the connecting Canadians programs, or is that something we can study a little bit further? That's new technology the Americans are working on that I thought was really interesting.

Ms. Sue Hart: Satellite is a technology-neutral program. Although fibre is really going to be the focus, satellite technology is eligible under the program.

In terms of the LEOs, this is still kind of in very early prototype phases. I can turn to Luc to speak more about LEOs.

● (1000)

Mr. Luc Delorme: Taking a step back, there have been a lot of satellite advancements recently. EchoStar, which you mentioned, is a new high throughput satellite. Xplornet is already using that for its residential customers in remote areas, mostly in the south; that one doesn't cover the north. Telesat is launching a satellite this year that will be able to cover the far north of Canada with high throughput, and we expect that's what will provide an advance for the Canadian Arctic.

There is definitely significant interest in low earth orbit right now. It has been tried before, and the first iterations of that haven't worked out quite as well. As of now, we have many companies looking into it. It has a lot of potential in the medium term, I would say, but I wouldn't expect it to solve our problems tomorrow.

Mr. Lloyd Longfield: Thank you.

Thanks to our clerk for getting all these wonderful witnesses, and for what she did in the States. We had great witnesses there too.

Ms. Pamela Miller: I was going to add that our department is actually consulting on a licensing framework to support next-generation satellites currently, including the LEOs.

The Chair: Thank you.

Mr. Masse, you have the final two minutes.

Mr. Brian Masse: The CRTC decision was very important with regard to net neutrality, probably one of the most underestimated decisions that we've had, and a very good one, in my opinion.

With regard to the 50 Mbps goal, explain in practical terms what it means for Canadians if that's the subsidized goal we're seeking, in terms of trying to get out to Canadians and having public funds to achieve that goal.

Mr. Christopher Seidl: It really allows Canadians to participate in the digital economy, from residences and businesses across the country. Obviously we have that capability in urban centres, with both the latest technology on the mobile side and the higher speeds. We also set quality-of-service standards. Economic development in our more rural and northern communities and, for businesses out in those areas, the connectivity of their machines and devices including when they're on the move for tourism, navigation, and public safety, are all important for Canadians.

Mr. Brian Masse: How has that number been ascribed? Is that just the base level? Has there been a defined preferable target level? That's the set level, but is there a level that we'd kind of like to get to, maybe 70 Mbps? I don't know; I'm just throwing that out there.

Mr. Christopher Seidl: We heard various proposals when we had our hearing on this, and most people were actually asking for lower levels than the 50 Mbps. Some were up to a 1 Gbps as well. When you don't have to think about the speed anymore and it's not a concern and your applications work with no delay, that's when you know you have enough bandwidth. We set quality-of-service standards. Latency is important as is delay, which might affect some of the technologies that can deliver that quality of service. It's really when the experience is sufficient to meet the needs of all the applications that want to use it. When you have those speeds available, you'll see a growth in applications and using up of that bandwidth faster than you think you have availability for. I expect we'll see it continue to evolve.

Mr. Brian Masse: Thank you.

The Chair: Thank you very much.

With that, we've come to end of this session.

I'd like to thank our witnesses for taking the extra time today to answer our questions. It's very important. We've have a lot of things to talk about.

We're going to suspend for a couple of minutes while we go in camera.

Thanks again.

[*Proceedings continue in camera*]