

HANSARD

NOVA SCOTIA HOUSE OF ASSEMBLY

**STANDING COMMITTEE ON
NATURAL RESOURCES AND ECONOMIC DEVELOPMENT**

Tuesday, November 24, 2020

LEGISLATIVE CHAMBER

Innovacorp and the Work of Nova Scotia Start-ups

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**NATURAL RESOURCES AND
ECONOMIC DEVELOPMENT COMMITTEE**

Keith Irving (Chair)
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Ben Jessome
Bill Horne
Hon. Pat Dunn
Tory Rushton
Claudia Chender
Lisa Roberts

[Hon. Pat Dunn was replaced by Steve Craig.]
[Tory Rushton was replaced by Dave Ritcey.]

In Attendance:

Judy Kavanagh
Legislative Committee Clerk

Gordon Hebb
Chief Legislative Counsel

WITNESSES

Bernie Miller, Deputy Minister
Department of Business

Malcolm Fraser, President and CEO
Innovacorp



House of Assembly
Nova Scotia

HALIFAX, TUESDAY, NOVEMBER 24, 2020

**STANDING COMMITTEE ON
NATURAL RESOURCES AND ECONOMIC DEVELOPMENT**

2:00 P.M.

CHAIR
Keith Irving

VICE-CHAIR
Rafah DiCostanzo

THE CHAIR: Order please. I'd like to call the Standing Committee on Natural Resources and Economic Development to order. My name is Keith Irving and I'm the MLA for Kings South and Chair of this committee. Today we'll be hearing from Innovacorp and the Department of Business regarding the work of Nova Scotia start-ups.

Before I go any further with any of the housekeeping, I do want to provide a special welcome to the newest MLA from Truro-Bible Hill-Millbrook-Salmon River, Mr. Dave Ritcey. This is your first appearance in the House. On behalf of all MLAs, congratulations on your election. I'm sure you're excited to work on behalf of your constituents, and we all look forward to working with you as MLAs and colleagues in this House. (Applause)

Please turn off your phones or put them on vibrate. In case of emergency we will exit out the back door of Province House and gather in the courtyard of the Art Gallery of Nova Scotia. Of course we have COVID protocols. I think most of us are now familiar with what we're doing here in the Legislature during committees: To please remain in your seats for the duration of the meeting unless absolutely necessary.

Because of that, we will add a 15-minute break - if it's acceptable to the committee - at 3:00 o'clock and extend the meeting until 4:15 p.m. Is that agreeable to the members of the committee? Thank you very much.

Let's begin by having my colleagues introduce themselves. Perhaps we'll start to my immediate left.

[The committee members introduced themselves.]

THE CHAIR: It looks like we've got a good attitude going into this meeting. Let's keep it rolling.

I'd like to welcome our witnesses here: from Innovacorp, Mr. Malcolm Fraser; and Deputy Minister Bernie Miller from the Department of Business. I believe Bernie Miller will be providing opening comments.

BERNIE MILLER: I want to thank the committee for the invitation and the opportunity to highlight the importance of both innovation and the work of Innovacorp in driving inclusive economic growth in Nova Scotia.

New and growing businesses are the engines of job creation, and strong economies are planted, not transplanted. Innovation-driven entrepreneurs find new and better ways to create value and to do valued things, from knee braces, to robotic weeding machines, to drones that inspect vineyards, to developing vaccines, and other medical advances.

Nova Scotia has a great track record for innovation. The first propellor for a boat was designed by a fisherman in Yarmouth named John Patch. He did that in 1833, so Nova Scotia has a long history of innovation.

Innovation-driven entrepreneurship is a team sport. That's why we're working with entrepreneurs at the centre of the system, but we also have our universities, colleges, communities, business associations, Crown corporations, and other levels of governments involved in continuously improving our ecosystem for innovation-driven entrepreneurship.

Just as a matter of terminology, I use the term "innovation-driven entrepreneur" rather than "start-up". Many innovation-driven entrepreneurs are beyond their early-stage start-up phase. Just for clarity, when I'm talking about innovation-driven entrepreneurs it's similar to start-up but has a longer time horizon.

What we're doing is building an ecosystem for innovation-driven entrepreneurs, and we do that in many ways: funding accelerators and co-working hubs, and finding ways to better enable the work of entrepreneurs from Yarmouth to Sydney and all communities in between.

Entrepreneurs and innovators across the province know they have a growing and collaborative network. It starts with research and exploration. Ideas are then developed and tested, and then commercialized. When new ideas are being put out in the market, early stage financing is required. You'll hear from my colleague about this.

Innovation not only creates jobs in the innovation sector, but has an important multiplier effect in the service economy. It has never been more important than it is now to have that multiplier effect in our service economy in the restaurants, the cafés, the yoga studios, in parks and hiking, et cetera. Knowledge jobs create more jobs. There is a five to one ratio. For every knowledge job that is created, five additional jobs are attributable to the creation of that single job. This is the conclusion of Enrico Moretti, an economist who wrote *The New Geography of Jobs*.

To be successful, an ecosystem needs entrepreneurs, first and foremost; investors; researchers; a talent pipeline through your post-secondary institutions; and large enterprises to be both innovative and also customers for your entrepreneurs. It also needs governments to adopt technology and innovations, and to create policy and programs that ensure a healthy ecosystem: things like strategic economic infrastructure; high-speed internet throughout the provinces; places for innovation like IGNITE Labs in Yarmouth and Pictou County, Volta Labs here in Halifax, the Centre for Ocean Ventures & Entrepreneurship in Dartmouth (COVE), and Innovacorp's facilities, which you'll also hear about; education policy like coding in schools, support for computer science, computer science in post-secondary, and sandbox programming to help students hone their entrepreneurial talents.

These are all some of the ingredients that go into innovation-driven entrepreneurship. Also, Connector programs, co-ops and programs like Graduate to Opportunity and Innovate to Opportunity, which are delivered through the Department of Labour and Advanced Education; mentorship programs like those offered through Innovacorp; also Venture for Canada and Futurepreneur Canada; programs like Creative Destruction Lab at Dalhousie, which is developing world-leading companies.

Programs for early stage capital are critical, like Innovacorp's. In addition, next stage venture capital like Build Ventures and Concrete Ventures help Nova Scotia businesses get launched.

Connecting to export markets through Nova Scotia Business Inc. programming - we often say an innovation-driven entrepreneur is born global. By definition, the markets that innovation-driven entrepreneurs are trying to reach are beyond the borders of Nova Scotia and export programming is critical to their success.

Competitive tax regimes and tax credits encourage angel investors. Angel investors come in at the point at which someone is starting their idea, but they haven't proven it in the marketplace. They really say there are various phases of investment. The first phase is FFF - friends, families and fools - soon followed by the angel investors and then Innovacorp. Supportive procurement also enables Nova Scotia-based entrepreneurs to solve problems for Nova Scotians.

This is a new way to approach economic development - one built on the capacity and capability of our people, and people who choose to come to Nova Scotia. Nova Scotia has all the right ingredients and, as the data will show, it's working. We'll be happy to take any questions.

THE CHAIR: Thank you, Mr. Miller. We'll now move to the questions. We'll do a question and one supplementary, at least for the first round. I've got six folks so far on the list. We'll begin with Mr. Maguire. Just a reminder to everyone to wait to be acknowledged by the Chair so that we can get Hansard going and the mic turned on.

BRENDAN MAGUIRE: First of all, thank you for being here today. I have two separate questions, but I'll try to tie them in together.

First, obviously, we're in difficult times - different times, I'll say. The delivery of goods and services traditionally has always been that you leave your house, you go to the store and you purchase what you need to purchase. Shopping local has always been something that has been beneficial to our communities - not just for the jobs they create, but also because they're the ones that usually support the local hockey teams, and this and that and the other thing.

We've seen a surge worldwide in purchases being made from Amazon and from these different online providers. People I know now, they shop at Costco, but they don't even bother going to Costco. They just order online; it's delivered to your home. With these meals - and I'm guilty of those - they arrive to your house. They're great - some of them, anyway.

How do we offset that? You were just talking about technology and how these investments are being made, but how do we offset that? How do we go from assuring people that those businesses are still safe and, at the same time, somehow allow those businesses to grow and jump on what's happening?

BERNIE MILLER: It's a very good question. You're quite right. The pace at which e-commerce or digital commerce has grown is phenomenal. It's driven primarily by people trying it for the first time during the pandemic and then adopting that. I think as we're into a second wave of the pandemic, it's likely that that trend will continue. In fact, it has accelerated a pre-existing trend. We had the equivalent of 10 years of growth in e-commerce in six months.

Where my colleagues at the Crown corporations and government policy are focused is that local businesses can be digital businesses, too. Nova Scotia Business Inc. and Tourism Nova Scotia have rapidly scaled up a digital adoption program. The ambition is to ensure that businesses in Nova Scotia that traditionally relied on the face-to-face transaction as being the source of their revenue are equally capable of competing - in many ways more effectively competing - with the big players that have the big platforms.

We can't turn the tide of customer choices. They're going to adopt new and better ways to acquire their goods and services in the near term and potentially more and more in the long term. By encouraging digital adoption by our existing businesses, they will go a long way in future-proofing their own businesses.

I've heard anecdotally, and it's something we'd certainly want to inquire more into, that our businesses have been very good at pivoting - one of the start-up words they use - to digital. Those that did have not suffered the same level of losses as those that chose not to. One of the things government policy can do now and in the future is really promote digital adoption by all businesses. The second piece is really important. That's ensuring that broadband is extended to the entire province, so no part of the province gets left behind.

[2:15 p.m.]

BRENDAN MAGUIRE: Thank you for that answer. I have seen a lot of local businesses really see this as an opportunity to get more nimble and also expand their customer base. I think with home deliveries and mail delivery, I think it could be a really good thing.

The only thing I kind of worry about is when we hear people say that this is a trend. Usually the buying habits of consumers - once they go down that road of sitting at home and just clicking on the computer and ordering something, I don't see it kind of going back to, as much, the storefront.

The other question that I had is a question that I've always had, so I'm glad you're here today, Mr. Miller. We talk about our future economies and knowledge-based economies and green economies and different directions that we have to go, and we are going.

I often wonder about what happens to the large percentage of the population that are still in the manufacturing and traditional jobs. As we transition to making Nova Scotia more of a global economy and reaching out - the lobster industry is a perfect example of what we've been able to do. What can we do to encourage somebody who's in a more traditional field - that maybe doesn't rely on technology - so that they're not left behind?

BERNIE MILLER: Again, a very insightful question. One general answer is not drawing a line between new and traditional. Our existing sectors that are globally competitive - and there are many of them - are adapting now. Manufacturing, for example, amounts to about eight per cent of our economy right now. By contrast, innovation-driven entrepreneurship through digital means is about four per cent of our economy, so manufacturing is double what our digital economy is. Digital is rapidly gaining ground.

I would categorize manufacturing as not being a distinct silo from digital. To be successful, manufacturers are adopting digital platforms to reach their customers, they're

adopting robotics, artificial intelligence in order to be competitive. I don't foresee a future where manufacturing - if the business owners fail to adapt, it's their choice, not government policy. The encouragement of government policy would be programs like the Innovation Rebate Program that's offered through NSBI. NSBI will fund up to 25 per cent of the cost of new machinery or equipment, including technology needed in order to become more competitive, so that's an example.

In what we call our resource sectors, or sometimes call traditional, again, same principle applies. We think of Tesla and their development of the electric vehicle. The question is, who's going to develop the electric fishing boat? At what point are we going to have autonomous fishing boats? We have innovators in Nova Scotia that are thinking about those ideas, so those industries will evolve. We'll always need food, we'll always need protein, and to be competitive globally, they'll go through an innovation phase as well, as they are, and I think Nova Scotia, our export numbers and so forth suggest that we're adapting well to a changing global economy.

THE CHAIR: Let's move now to Mr. Craig.

STEVE CRAIG: Thank you very much, Mr. Chair. Gentlemen, Mr. Fraser, Mr. Miller, nice to see you both.

You were talking about STEM and the science, technology, engineering, and mathematics and how things have moved over the years, and it just takes me back to think about times when I started in that area in 1975. In fact, I put on a couple of competitive intelligence talks at Innovacorp back in the late 1990s. It's nice to see you both here.

I've got a couple of questions, but Mr. Fraser, this one would be more around governance in the way that Innovacorp is operating. Shortly after you were hired in 2018 or so as president and CEO, Premier McNeil sat down with the Maritime chapter of the Institute of Corporate Directors and it was brought to his attention - which you may be aware - that 20 per cent or so companies that had public funds going into things that Innovacorp invested in, and including Innovacorp. The Premier said at that time that he wasn't aware of the situation and that he was going to take some steps.

I'm curious to know, how did the Premier communicate to Innovacorp that the status quo at that time was unacceptable? I'm curious to know what steps you've taken perhaps to expand on the investment diversity and inclusion, so specifically, do you have a percentage of Innovacorp's investments that are being made in female-founded start-ups? Do you have set targets around female-founded start-ups? And if so, how do you track those?

MALCOLM FRASER: Great question. A few key facts, I think. I don't think that we were unaware of that situation at the time. Two or three things are happening right now: over the last three years we've seen, and in the last year specifically, an incredible increase

in the number of female-founded or female-led organizations in the early-stage start-up business or innovation-driven enterprise business. We're actively looking at investments like that and have made them along the way as well.

We're also actively engaged with a new venture that we've helped sort of support and develop called Sandpiper Ventures, which is a fund specifically developed by a number of successful and experienced female executives and entrepreneurs who are putting money together to become investors into female-led companies. This will be a fund. We're very supportive of that project and will engage in that as well.

We're seeing a significant amount of change in the makeup of the types of companies and who is involved in them and how they're led as we move forward. We're very attentive to it and are actively investigating them all the time.

We also have a very diverse board at Innovacorp, which is a private sector board, and have representatives from a number of female executives. We have representatives from the Black community as well as the Indigenous community, so we have all the right voices at the table to help us decide where we're going strategically and what to focus on as an organization.

STEVE CRAIG: I'll turn my attention, Mr. Miller, to you. As you may or may not be aware, I am the PC critic for Housing, and as a municipal counsellor I have been involved in development and encouraging businesses to come here. I looked at the Amazon HQ2 proposal - which you may have had some of your fingerprints over that, or your department - and we met and talked about neighborhoods and affordability at that time.

We currently know that housing is a critical issue and a crisis - not only here, but in other provinces too. I want to really talk about here in Nova Scotia, and what the role of your area is in recognizing that you may attract people globally. We've seen increases in the numbers of people coming here to Nova Scotia - I think at an all-time high of 10,000 or so in HRM in recent years - and it's steadily been increasing. The number of housing availability units and new builds has not been keeping up with that.

Recognizing that we may attract and seek to attract investors, start-ups, the Amazons of the world, and that we may not have housing for them - they may say this is a great place to come and work and I'd like to raise my family here, but when they start to look around, they find it's great but they have no place to live.

My question really is this: What is your department doing within government to ensure that the people within government are doing everything they can to build housing within Nova Scotia in a timely way? It's going to take a long time for us to get out of this deficit, in my opinion.

BERNIE MILLER: Just as a matter of information, my own philosophy towards economic growth wouldn't be to focus on the big fish like Amazon, but to focus on those entrepreneurs that are already here in Nova Scotia - just as a preface to the question.

That said, the issue is a challenging and important one, driven by supply and demand, and by constraints on supply, which are driven by planning and zoning rules, which you'd be familiar with - but also driven by a long history of expectation and, in many ways, managing decline in Nova Scotia from end to end.

It has only been in the last five to ten years that we've seen a new attitude towards economic growth and new opportunity reflected in the population growth numbers - 2015 seemed to be a real pivot point for Nova Scotia. One of the challenges of success in terms of attraction of people and retention of people - we have far less out-migration than we did - is that it's constraining an already constrained housing supply.

I see this as an all-of-government issue. I see it as a constraint on economic growth if housing is unaffordable. If housing supply is constrained, then being an attractive environment for people to come and work as people are doing becomes a challenge. It's an important all-of-government, multi-level-of-government challenge. It's only small solace that it's a challenge associated with generally good things in terms of economic growth, wage growth and other opportunities that are happening, but it's one that can have significant impact on displacing people, unequal effects in terms of how it affects Nova Scotians. Those that are the most vulnerable will be the most challenged.

To me, to answer your question more directly, I would say at the Department of Business, we would regard housing to be as much an economic issue as a social issue and something that we would work very collaboratively with our fellow departments in government to develop policy and program initiatives to improve the current situation.

THE CHAIR: Ms. DiCostanzo.

RAFAH DICOSTANZO: My question is about what you started to talk about - the FFF and the Angel and Innovacorp. I've always assumed it was family and friends. You start up, and then it goes to two to three million, and then that's where we hit a roadblock. You know, 10 or 15 years ago, we lost many, many companies to the U.S. because of that. There was no venture capital - anything above the \$3 million to the \$10 million or above.

I see so many companies staying, so there is venture capital that is arriving now. A lot of companies are in that \$10 to \$30 million range, as well. Can you explain what has happened in the last five to ten years? Who are our investors? Are they international investors? Where are we getting this venture capital? I'm very excited to hear about it.

BERNIE MILLER: I'll provide some initial comments and then hand it to Mr. Fraser. This is their bread and butter.

You're quite right about the constraint on access to capital. I started as a public servant seven years ago and that was a frequent refrain. Because the Atlantic ecosystem has really been put on the map through some really successful start-up companies, we have the attention of international investors.

The numbers kind of bear out that it's no longer a constraint. Last year in 2019 in Atlantic Canada - these are Atlantic numbers - \$651 million was invested in innovation-driven entrepreneurs. That was three times the amount that was invested in the previous year.

I'll lead off by saying the previous constraint is being resolved. Innovacorp plays a big role in the early stage, but Mr. Fraser can provide further information on the question.

MALCOLM FRASER: Yes, I think there's much more venture capital available in the region than there has been before, that is for sure. That scaling capital that you're talking about - that sort of \$5 to \$10 to \$20 million rounds - those are happening and they're happening for companies that are based here. I'd say we're losing less of them.

There's a company that we've been working with for over 10 years called ABK Biomedical Inc. It came out of Dalhousie University and went through all of our facilities and programs. In 2019, they raised \$40 million USD. That capital came from far afield.

What's been exciting over the last eight years has been that the exits we have seen - companies that have sold to larger organizations - has put a light on our region and people are here looking for deals. A lot of our investment team spends time nurturing relationships with funds outside of the region so that we're a trusted source for those next rounds. They say Innovacorp's talked to them, they've made an investment, they know what they're doing - we'll have a look at this and see what we can do.

I'd say that scaling capital is always a challenge in Canada, period, but we are doing a great job at being able to attract the capital that we need for the companies here.

RAFAH DICOSTANZO: It's wonderful to hear and I've heard it from a few people, as well.

The other thing that I've noticed, as well, is the labour market. I have a company in my constituency that has done amazing since February. I had visited them last year and they had 10 or 11 employees; they had to shrink it down to that. Between February and May, they went up to 53 employees.

It was lovely to see but something that they didn't expect was the labour market. They could not find employees. They hired a lot of newcomers and they're producing a test for COVID-19, in fact, but it's going to the U.S. They're producing 20,000 tests in a

room as big as this with so many employees. They truly had a hard time finding them when they needed them right away. Does Innovacorp help them with that?

MALCOLM FRASER: We are certainly active in helping our clients, these companies, look for and attract resources for their business, and we spend a lot of time and dollars helping them do that on a regular basis.

The workforce is changing in Nova Scotia, no question, and certainly one of the benefits of this pandemic that we're in is that people do want to come here and live here and work here, and that is helping with the attraction of skilled workers that we do need to attract from other places to come here for a lot of these companies.

[2:30 p.m.]

We do not get involved necessarily in labour strategies as a whole. That's really the Department of Labour and Advanced Education, I think, that spends a lot of time there. We're certainly involved in being targeted and helping the right skills for it. I work a lot with actually the Graduate to Opportunity and Innovate to Opportunity programs because they're excellent programs that actually help retain a lot of the skills that we're developing in our universities here to the companies that are here, so those have been very useful programs for our companies.

THE CHAIR: Let's move now to Mr. Ritcey, who will ask his first question to be entered into the Hansard of the Nova Scotia Legislature.

DAVE RITCEY: Thank you both for coming today. I really appreciate it, as well as the committee. I guess my question is for Mr. Fraser. It's in line with your expenses.

When we see a situation where government expenses are rising and program spending is dropping, we need to evaluate if tax dollars are being spent effectively. In the fiscal year 2016-17, your predecessor accumulated a total of \$2,901.23 in expenses. Yet the following year, when you were in the position of president and CEO for only six months, your expenses were \$13,079.04. That's more than four and a half times as much in only half the year.

Your expenses have included such items as 45 cents for parking to \$6,000 in meals alone in each of the last two years. That's \$500 per month in meals alone, while studies show that the average Nova Scotia family spends \$200 per person per month for food.

Mr. Fraser, can you explain this discrepancy in expenses? As well, do you feel you are providing good value to the taxpayers?

MALCOLM FRASER: To answer the second part of your question, absolutely. We have a small and efficient team that works tirelessly to deliver the programs and services that we deliver over time.

Specifically to my own expenses that are related to that, there are a number of things that I did take on right out of the bat in taking over this role. You can look within my expenses to find a number of the board expenses, as well as understanding the ecosystem that we're dealing with and meeting with those individuals thoroughly at the beginning of my term.

The majority of those increases, I think, you will find are related to me getting a greater understanding of who is in the ecosystem, who are they working with, meeting with our clients most of the time to understand what are the challenges they need so that we can set the right strategy for Innovacorp going forward.

DAVE RITCEY: Thank you for the answer. Mr. Fraser, during your time as president and CEO, you've taken taxpayer-funded trips to destinations like Peru, Mexico, California and Abu Dhabi. Can you provide specific examples of investments in Nova Scotia that have occurred as a result of those efforts abroad?

MALCOLM FRASER: Specifically to those events, the ones in Mexico and Abu Dhabi were specifically for the World Ocean Forum. Oceans is a critical sector for our economy at this point. We're actually a leader in this sector around the world. It was critically important for me to ensure that I understand what the global outlook is for this economy, as I was relatively new to it coming into it, and understanding and getting to know the people who are involved, which those trips are mainly focused on, the ones that you mentioned.

The outcomes for that, I think, have been two or three specific items in that a good understanding of where the ocean economy is going and where early-stage start-ups are going is important for us to understand if we're going to make investments in this sector and do it successfully. Through that, I was able to actually meet with other investors in this sector from around the world. I engage with them monthly at this point in time, which helps us understand the terms and formats of deals as they come through and where capital is coming from for these things, as well as customers for these types of technologies.

I was there with my colleagues from COVE as well, which again, we are trying to attract companies globally to the Centre for Ocean Ventures and Entrepreneurship. We run the start-up yard there. It's incredibly important we meet them.

You can see this year there was a CDL ocean stream that was specific, which is attracting a number of global companies to the region. There was one actually through that program that I met at the World Ocean Forum in Mexico that is doing – it's got a light technology that manages bycatch in fisheries, which is relevant to our economy, but I want

to attract them here to build their technology here, grow their company here and employ people here. That is part of the reason behind those specific trips that you mentioned.

THE CHAIR: Ms. Chender is next.

CLAUDIA CHENDER: Welcome, gentlemen. It's nice to see you here. Proud to host COVE and the Innovacorp campus in Dartmouth South - I'm lucky to hear a fair amount about what you do at the constituency level.

To the topic at hand, most of us have one eye on the clock, waiting for it to tick down until 3:00 p.m. to see what the next round of our universe here in Nova Scotia is going to look like. Regardless of how we've done things in the past, we know that they will be done differently on the other side of wherever we are now. The approach that I think I've tried to take to that sobering reality is that it's an opportunity. I think the deputy addressed that a little bit earlier in talking about ways that companies can pivot.

I saw somewhere in the literature specifically germane to the tax credit for VC funding that basically we're leveraging public investment in Nova Scotia companies that strive to change the world. That's great. I think that's what we need, so I want to understand a little bit more about what that means.

When I look at the press release, what I see is that part of the leverage of that investment is a head office in Atlantic Canada. I guess what I want to understand is, what else are we leveraging? Are we leveraging a broader presence than just a head office? Are we leveraging environmental impact? Are we leveraging diversity? Are we leveraging any number of the things that we know are the resiliencies that will be required as we move forward?

MALCOLM FRASER: Specifically to the venture capital tax credit that I think you're referring to, that is an excellent program that allows people to invest in accredited venture capital funds to make investments in our province. I think what's important in that and what we're seeing a lot in this space as it relates to some of those bigger questions is that policies and understandings of equity diversion and inclusions, as well as environmental sustainability in governments are all core policies that these funds need to undertake in order to do that.

I think part of what this tax credit allows individuals to do is to be able to start looking at funds that carry those types of policies around them. We can't direct them to do that, obviously, but that is sort of the standard by which we see most funds forming - that they do need to have that level of oversight and focus that allows them to ensure that we're focusing on the right diversity of types of opportunities we have, as well as the impact of those - especially when we talk about the ocean sector deal with the responsibility to the resources we have around us. I don't know if that answers your question specifically.

CLAUDIA CHENDER: I guess I just want to push back on that for a minute, because you say you can't direct those funds to do that. That's accurate, but you're investing public dollars, and so presumably you can offer that tax credit or not, based on where the investment goes.

I guess what I'm trying to ask is: How are we leveraging that benefit that we are giving in the form of a tax credit? Obviously, we're using that to attract dollars, but how are we then leveraging that to attract the dollars that are going to make the greatest - not just financial impact, but social impact, environmental impact on our province as we move out of this difficult time?

MALCOLM FRASER: Yes, I think I understand the question now. That credit is for individuals to invest in venture capital funds. They would not invest in our fund specifically, the Nova Scotia First Fund. For any new funds that are starting up, much like Sandpiper, that opportunity is there for individuals to invest in and take advantage of that tax credit. I think it's funds like Sandpiper that exemplify the type of leadership that we're seeing in this sector, that when funds are created there needs to be more than just a financial return associated with that fund at the time.

Most leading funds in the world today sort of follow those policies specifically because it's hard to find investors that don't want that as part of the mandate or focus of the fund at the time.

THE CHAIR: Ms. Roberts.

LISA ROBERTS: I'm feeling like I'm in a new sandbox. A little bit further to where Ms. Chender was going with her question, you in your work are engaging innovators who presumably want to change the world. We live in this little corner of the world where we have a number of challenges, including housing scarcity, which is affecting particularly - actually it's affecting all kinds of people.

I had a meeting fairly recently with Wendy Luther from the Halifax Partnership, where she talked about her staff not being able to find a place. Those are like young professionals, the sort of demographic that might be working for any of the companies that might also have space at Volta or at COVE.

Increasingly now, that kind of whole class of folks who normally enjoy a work day that is mystifying to me, frankly, with a laptop and a latte, are now being asked to work at home and they might be sharing that home with all kinds of folks.

Can you walk me through a little bit? Given that we see our future as being really linked to not just their prosperity but to their creativity, how are you tapping into, or in any way incentivizing that creativity to tackle some of the social issues and the ecosystem issues that are actually also - in a kind of a loop - affecting their ability to have successful

careers here? We live in an attractive place, there is absolutely no question about it, if you're doing okay. If you're looking for a place to live, actually it's not a good place.

I think of an article I saw relatively recently talking about a whole bunch of small towns in Ontario that are attracting a lot of population because there's real estate there that is available. People could choose to go elsewhere despite our ocean, and that would be a shame if we've put in the work of educating them and attracting them and trying to build this ecosystem. So how are we and how are you leveraging that creativity to solve some of our issues, including particularly housing?

BERNIE MILLER: I referred earlier to Enrico Moretti and his book, *The New Geography of Jobs*. He speaks very much of the issues that you have identified and comes at it from the United States point of view, and he paints a pretty clear picture of why Donald Trump became president, because there were so many parts of the United States that were left behind in what we'd call the digital economy or the new economy.

In fact, in the latest presidential election, the Biden camp, so to speak, represented 72 per cent of GDP in the U.S., so the districts that voted for Biden were 72 per cent and the districts that voted for Trump were 28 per cent. It touches a really, I think, foundational issue that within government and within the Public Service that we're very focused on.

Skills are the key ticket to opportunity in the future economy, and for many years people were left behind. A skills agenda over the next many years is really foundational. That starts with early childhood education all the way through to computer programs at Dalhousie University and then programs for older adults, for that matter, because we're in a world where you always have to learn.

The second is bridging the digital divide. The concern we would have from a public policy point of view gets to some of the points that you alluded to. There's no going back to the manufacturing economy that was part of our earlier conversation, and where Nova Scotia really has the opportunity to succeed is in a skills-based, ocean innovation-driven economy, but doing it in a way that recognizes that it's not going to trickle down. It didn't trickle down in the past and it's not going to trickle down in the future.

It's going to require a deliberate suite of programs regarding the development of the ecosystem where government will have an influence in ensuring - as the previous question arose - how public policy objectives get achieved through government programming. We can influence by creating a tax credit program that will create a fund for women entrepreneurs or contribute to a fund for women entrepreneurs, and that would be indirect influence, or we can be much more direct about programming to ensure that digital divides - so certain communities that have historically been excluded from opportunity are expressly not excluded in new opportunities. That would be point number one.

Point number two is, the film industry has always been a subject that we've talked about. It represents the strength of creativity that Nova Scotia has and we sometimes look at our sectors in silos. When I think about the future of Nova Scotia, I think tapping all of the creativity of rural and urban Nova Scotia. I may be biased because of the little flag I wear, but a comparative advantage that we never really built our economy on in the past, to the question before - we're always trying to attract the next big employer that will create jobs for our people here, and now the task isn't jobs for people, it's people for jobs.

It's focusing on skills and making sure that people don't get left behind and addressing challenges like affordable housing, access to post-secondary education through bursary programs, through access to jobs, through Innovate to Opportunity and Connector programs like that.

I think you've touched on a really critical point for public policy broadly, and I know the deputy ministers are focused on immediate resolution of the challenges of COVID, recovering from COVID, building resiliency, but in many ways reimagining the opportunities that this pandemic - the challenge of it also, as was alluded to, does allow us to look with kind of a clear-eyed focus on what are the challenges and how best to solve those. I think the opportunity for Nova Scotia is frankly better than many other parts of Canada and parts of North America.

LISA ROBERTS: I'm going to be very practical - tangible, because sometimes this conversation can kind of feel like it's floating up here somewhere.

There are actual innovations in affordable housing construction - modular housing. There's a company down in Meteghan that built one house - maybe not that fast - out of recycled pop bottles, but has the ability to scale up and is - before COVID, was being flown both to Houston for hurricane-proof housing and also to Iqaluit for thaw-proof housing.

There's a company called AeroBarrier which does amazing stuff at reducing air flow and energy waste in older housing construction. There are these crazy programs where you kind of take a 3D model of an entire house and then manufacture with a 3D printer, if I understand it correctly - kind of a new envelope for an old building in order to drastically improve its energy efficiency.

Those, to me, are innovations I'm interested in not just for housing, but also because of my concern and our shared concern for climate change. Would any company working in any of those spheres be eligible for assistance from you?

MALCOLM FRASER: All of those examples are very interesting solutions to a theory that I constantly say about Nova Scotia: the problems we have here are globally exportable. If we can solve our own problem here, there's a market in order to sell it. Any one of these ideas - if they're being commercialized in a manner to scale globally - is

something that we are interested in investing in. We are an investor. That is the way that we would look at those types of things.

Absolutely, those are problems. Our areas of focus are on agricultural technology - how we are growing and creating food effectively for the world; clean technology, which is a lot of the housing technologies you talked about specifically; ocean technology - how we manage this resource and how we effectively live in it and around it; and health sciences - how we can solve the problems that we have in front of us today.

Those are all giant, massive global problems that we can work on here. Any one of those things, if they are Nova Scotia-started and are being developed and managed with an eye for global scaling of that business, then that is absolutely something we are interested in.

THE CHAIR: Mr. Horne is next.

BILL HORNE: I'd like to ask both Mr. Miller and Mr. Fraser to give us an update on how COVID-19 has affected and impacted innovation in ecosystems, particularly the start-up companies.

MALCOLM FRASER: Thank you for the question. At the very beginning of the COVID-19 pandemic, we were quite concerned about funding - especially angel funding, because that is the area that we felt was going to dry up the fastest. Also, funds locally and around the world were sort of retrenching. In a deep economic recession, funds don't flow as fast as they normally do.

We took a fair amount of action to help support those companies that needed a longer runway to do that to deal with that issue. I think since then, there have been some good things and some challenging things that have come out of this pandemic in the start-up community. A certain amount of focus is applied to any business when things get a little tough. That's always beneficial to any new business or any business in general. We've seen a lot of that.

Those entrepreneurs that we're able to look at what they're doing, understand if their market is still in existence and how it's changing, and be able to change either in a minor or major way what they're doing - it has allowed a lot of them to be successful at sustaining through this. I would say that we haven't really lost any or many out of the ecosystem yet. We are at the very early stages of these companies. A lot of them don't even have revenue, so it's not always as impactful.

Something positive that has come out of this is that the competition framework has changed significantly. It's now as equally difficult for anybody around the world to reach your customer as you are. Getting a Zoom call is a little easier than flying there and trying to figure out how to muscle your way in.

I think one of the more important things that we've seen is that both the federal programs of support for venture capital as well as just venture capital in general has continued to flow through this challenging time to early stage companies. There's opportunity in change and that's what we are in at the moment. It's exciting to see in Canada and around the world that capital does continue to flow as we move into the ninth month of this challenge ahead of us.

I believe there are more challenges ahead of us, but I think that we've weathered very well here in Nova Scotia specifically - mostly due to the natural resilience of the entrepreneurs in question.

BILL HORNE: Again, innovative ecosystem achievements, inclusive in economic growth - what kind of numbers do we have about the economic growth from this?

MALCOLM FRASER: As I mentioned, there has been a significant amount of capital invested this year, which sustains and grows these companies, really capital's invested for growth, so there has been consistent, if not growing, in the early stage companies throughout the province during this time.

I think that when you look at the overall employment of start-ups in the region and in Nova Scotia, that's what you'll find - that it's steady, if not growing a little bit, throughout this time.

BERNIE MILLER: A couple of data points on this - my data is slightly out of date with COVID-19, so it's pre-COVID-19. Year-over-year revenue increases in the digital economy were 7 per cent for businesses and the national average was 5 per cent. We're growing our revenue at 2 per cent faster than the national economy. Revenue is really just the proxy for whether you're creating something for customers that they value. To me, that says relative to the rest of Canada, the entrepreneurs in Nova Scotia were creating more value than the rest of Canada.

As far as jobs, as of 2017 - again, three years out of date - 18,800 jobs and 4 per cent of the labour force were in the innovation-driven entrepreneurship digital economy. University research and development - investment in research and development - was second-highest in Canada.

Coming back to your earlier question about COVID-19, one of the many things it has highlighted is the importance of research and converting research quickly into solutions as the vaccine development has occurred. I think what that will do is highlight to people globally and within Canada the importance of that early stage research in both health care and in environmental green economy issues.

That's really where the innovation stems from. If that early stage research is done, that's where new ideas get developed to create the new businesses. I think the fact that

we're second highest in Canada in university research and development bodes well for the future.

THE CHAIR: I think it's appropriate to take a break before we move to Mr. Craig next. We'll take a 15-minute break and return at 3:13 p.m.

[2:58 p.m. The committee recessed.]

[3:13 p.m. The committee reconvened.]

THE CHAIR: Order, please. I'd like to call the committee back to order from our recess. I'm anticipating we'll go with questions until 4:00 o'clock. Then we've got a little bit of committee business to follow up with that, so roughly 4:00 p.m. and a few closing remarks from our witnesses.

We'll move now to Mr. Craig.

STEVE CRAIG: Mr. Fraser, first off, a good conversation around venture capital and how the private sector has stepped up in recent years. I wasn't aware that \$651 million or so that you mentioned in Atlantic Canada is three times the previous year. That's phenomenal, it really is. I was one of those fools, years ago, so there's none of my money in there, I can tell you that.

When it comes to venture capital - if I'm reading the numbers right as they were given to me this way, anyway - I believe Innovacorp invested \$2.6 million last year. The target was \$6.5 million. The number of investments went up, but the amount of the investments went up on average, so there's \$3.9 million left.

When you talk about the private sector stepping up more and more and more, the venture capital ecosystem has tremendously evolved. The numbers bear that out. Here in Nova Scotia, we've got the Build Ventures and Concrete Ventures organizations, and Build Ventures focused on scaling up companies, and Concrete Ventures as the pre-revenue stage and working with the start-ups - I appreciate, Mr. Miller, you don't like start-ups, but that's the phrase I'm going to use..

With that, private sector-led funds capitalized with public and private money, mostly private money, there seems to be a question - I believe we've got the Nova Scotia First Fund, so is the balance shifting? I appreciate years ago, the investment by private organizations was down and that you needed some seed money, presumably so that we could grow that awareness, and then having people invest themselves when they started to see the significance and the importance of investing in start-ups.

Now we have much more venture capital available in this ecosystem - private capital. As that's growing and Innovacorp has underspent in the last year, what is the plan

to reduce public monies into this to the level and degree that it has been, recognizing that there are other forms of venture capital coming in?

[3:15 p.m.]

Ten years ago or six years ago there wasn't that much, and I truly appreciate the need for government to step in, and now we have to make this happen and this is where it's going to happen. Yet the balance has changed.

What considerations are now being given that perhaps we don't have to spend as much, if we're not spending as much, budget less and return those dollars into the, let's say, wild-ass guess here - I don't know if that's parliamentary - into housing?

MALCOLM FRASER: Fabulous question with a whole lot of content around it. I'll start by addressing last year's numbers. It was certainly lower than the year before, no question about that, a little bit partially due to one deal that sort of slid past our fiscal year end that we were expecting to make in the year. It's actually played out quite well for us and this year, we'll actually be sort of back to that, we've already committed at least the same number we had the year before, which has been helpful in this time.

That fact led to the question of where do we play and why do we play there? There are a couple of key points around that. Innovacorp has been the leading foundational partner for the early-stage start-up ecosystem in Nova Scotia for 20 years. It's led that way by always trying to fill in a gap where there's market failure. We are at the very earliest of those rounds. As soon as the triple Fs put their money through and then some angel investors - we usually come in with small angel rounds as well - we'll put \$100,000 in a company at a time with a bunch of other angels doing similar amounts to help keep that deal moving.

What you are seeing is where we are investing is changing a little bit because of that. Traditional venture capital invests in your typical IT SaaS-based companies with funds like Concrete Ventures. They focus a lot on that, certainly. Build Ventures does a lot of that. We still do it, but the majority of our focus going forward in our investment thesis is in these tougher industries: the health sciences, ocean sciences, clean tech and agri-tech sciences, which take a little longer time.

There's less money at the early stage for those, so that's where you find our focus at this point in time, is at the beginning of those sectors that have great promise here. Actually some of the most interesting technology we're dealing with right now is in those sectors, and they need the capital that we have to be able to get that business moving out of the science and into the market.

The volume will fluctuate over time of what we actually invest, that should be expected, but where we put it is still focused on those areas where there is market failure.

STEVE CRAIG: Thank you for that response. It was good to redirect the monies to where they really are needed, and lack of potential capital and perhaps even higher risk areas, so that's good.

I want to turn now to Mr. Miller if I could and, as you can tell, my line of questioning is all over the place. I want to talk about governance now. What exactly is the provincial Act that governs Innovacorp, and the composition of the board of directors is of particular interest within that Act? I don't know if members of government are members on that board, and if so, whether they are voting or non-voting members.

I'm just curious to know what Innovacorp, being an entity of the province, what the balance is and the governing Act that governs that. Too many uses of the word governing, but just what drives the overall governance of Innovacorp and just how deep is the government involved in that?

THE CHAIR: Government is good parliamentary language. (Laughter)

BERNIE MILLER: The applicable legislation I believe is called the Innovation Corporation Act, and so Innovacorp is a shortened version of that. The legislation was passed in 1995, which I find really very interesting because, I don't know who was in power in 1995, but it was a very forward-looking Statute in terms of where the economy was going rather than where it was.

The Statute hasn't been updated since its formation, but when you read the legislation, it's very confusing because it talks about a first board and then a regular board, so they're into their second phase of their first board. The way it works in practice is that it's entirely made up of private sector nominees that participate on the board together with the Deputy Minister of Finance and Treasury Board and the Deputy Minister of Business who attend the meetings but don't vote on the meetings.

I attend quite regularly; the Deputy Minister of Finance and Treasury Board consults with me regularly and attends less, in terms of just sharing the responsibility. As far as the Statute, it contemplates a founding board and then a regular board, and it's into its regular board where it's dominated - more than dominated, but entirely led by private sector voices. Malcolm Fraser as CEO takes his direction from the chair and his board speaking as a whole.

As far as the framework for governance, the Minister of Business is the sole shareholder of Innovacorp. The Minister of Business has statutory responsibility to approve the strategic plan, which he has done. That's prepared at the management level iteratively with their board. It ultimately goes to the minister for final approval.

The minister also approves the annual business plan and is accountable to the Legislature for the budget that is allocated to the Department of Business and then allocated

through the Department of Business to Innovacorp in the form of a grant. So that's essentially the governance model.

THE CHAIR: Mr. Jessome next.

BEN JESSOME: I will direct the first question to Mr. Miller. I apologize if this is more of a philosophical question, but I've been thinking about it a lot of late in particular. In particular in Nova Scotia, it seems like there's a strong philosophy towards buying local, supporting local.

I'm wondering, Mr. Miller, if you can comment on - in terms of weight and contracts and business that's done - how important it is to buy local and how important is it to support companies or endeavours or enterprises outside of Nova Scotia. Assuming that it's important to have some type of balance between your local organizations and creating an open door policy more broadly.

BERNIE MILLER: Philosophical questions are my favourite kind. Economists will often tell us that the market should ultimately decide. It's not really consistent with classical economics to encourage buy local in preference. That's the economists' view.

I think when it comes to innovation-driven entrepreneurship, and that's the focus - I'll get to the broader economy in a second - governments actually are really important in the process. Through appropriate procurement, they create a market for their own domestic companies

When you're trying to become a global company, being able to sell domestically is an important carrying card that you can go to other markets and tell them your product has been tried and tested and is being used in your own home market. It's quite important, I think, but it always has to be balanced with the value that public funds need to produce. It's not favouritism - it's creating an avenue whereby new ideas can be generated.

The Government of Nova Scotia has taken space in Volta and have an innovation outpost there. The idea of the innovation outpost is for government departments that have a pain point, as they say, or a challenge they need to have resolved. Rather than trying to design it within government, we're creating a venue where you can have the conversation with the entrepreneurs.

A good example would be the Nova Scotia Health Authority and Volta teaming up to create health challenges. What they'll do is hold either a virtual gathering or a real gathering when we're able to at Volta and describe the challenge. Then they'll ask local companies to pitch on what a potential solution would be.

As far as the entrepreneurial ecosystem, government as an agent for procurement is important. I think it's something that we do now and we can do better. We always need

to balance that with value for money. Ultimately, that's what the Auditor General looks for and that's what ministers are accountable for.

On the broader buy local, I do think that one of the impacts of COVID-19 will be that we'll be much more alert to that. Hopefully, Nova Scotians will take the messages that they hear constantly from leaders and from business leaders that emphasize how valuable our small businesses are to our economy.

As much as we're talking about innovation-driven entrepreneurs that participate globally, they will always form a smaller percentage of the economy than the service economy. I have become a very good customer of the local craft breweries in the last 10 or 20 years, I admit it.

I think it really is something that it's not so much economics, but it's a recognition of the challenge that COVID-19 poses and the opportunity that it creates if we buy local and focus on those. For Christmas, it's just around the corner, you can do Amazon, or you can buy from a local craftsperson who's selling their goods online. We'd want to encourage all Nova Scotians to think local first before they go to the big platforms.

BEN JESSOME: I'd like to get Mr. Fraser engaged here on the same sort of sentiment. Can you weigh in a little bit on whether or not there are companies that your organization would touch that, due to scale numbers, receive profits where Mr. Miller indicated that - I just lost my train of thought.

Mr. Miller had indicated that in terms of selling more broadly, it's important to have that calling card that you're doing it in your hometown type thing. I'm kind of roundabout it here, but just kind of weigh in. I'm not looking for something very definitive, just wanted your opinion on that.

MALCOLM FRASER: This is a great opportunity to bring up a really important point that is very relevant to what Innovacorp does every day and how we actually reach the goals that we've set out for ourselves.

It is extremely important that within the traditional business community that there is a culture of innovation within it that is focused on actually trying to figure out how to build something that nobody else has or offer something no one else has or how to be more efficient at delivering whatever it is that I do every day. That is the definition of innovation in a corporate sense.

We need to have corporate Nova Scotia, for lack of a better description, open and engaged in actually trying some of these new innovative solutions that most of the companies that we deal with see every day, because if they're not engaged and interested in making their business better, they're not going to be great for the long term. More importantly, they offer an important first step in actually proving whether or not your new

COVID tests or your 3-D printable house or the data you're collecting from the ocean in order to manage the fish stocks better actually works or not.

[3:30 p.m.]

I think that buy local from an Innovacorp point of view really comes back to ensuring that our corporate community is engaged and active in making their business better by talking to innovators and figuring how to make parts of their business more effective.

THE CHAIR: We'll move to Ms. Chender but just before we do that, a time check. We've got almost half an hour, but I've got five on the list. If we stay short we'll get a question and a supplementary; if we drag on I'll just move it to a single question.

Ms. Chender, two quick ones.

CLAUDIA CHENDER: I'm going to try to also stay practical here like my colleague. We've talked about the shift from investing in the big employer to investing in our people and our labour and the start-up ecosystem, but aside from the start-up ecosystem and still the resource industry, the backbone of our economy really is our small business, particularly the tourism and hospitality industry.

I want to ask the deputy a question that I've asked him before at least twice - I guess it would be great to hear about what's happening for that sector. We know that there are a few things, I hope there's more coming. But in terms of general support, an idea that I know the department has looked at for a long time that we and the Tourism Industry Association of Nova Scotia have championed is creating an opportunity for seasonal businesses to expand to year-round operation. That's just through not taxing them when they would be closed anyway as a pilot for a few years and let them get up and running.

The recovery for these businesses is going to be incredibly steep. Is this something that the department is going to finally implement?

THE CHAIR: Just before we move to the answer to that question, I'd like to caution the members that our topic today is start-ups, so if the witnesses want to respond I certainly will allow them, but just a caution, try and stay on topic. Mr. Miller.

BERNIE MILLER: I'll do my best to link the concepts in that whether you're a tourism business or any business, adaptation is going to be really important. The foundation to recovery is having mitigation and then adaptation. Some of what has been done for businesses by the federal government and followed up with filling gaps by the provincial government has been really at the mitigation level. Some has moved adaptation, and in the tourism sector, I have some optimism and some concern.

The concern would be rooted in things that are beyond our control. Coming out of this pandemic, consumer behaviours may change. They may change permanently, they may change for a long time. There are a lot of people that look at 9/11 or the 2008 financial collapse and then they forecast tourism recovery based on that data. Just from my own policy perspective, not reflecting anything other than that, I don't think that data tells us a lot.

We're year into a year-long global pandemic and then a vaccine that has to be deployed, so over a long period of time, we're not having tourism. It's illegal for tourists to visit the province from outside of Canada and even within the country, there are so many restrictions.

Adaptation gets to the year-round piece. As much as the population growth that we've experienced strains housing, in rural parts of the province it introduces an entirely new focus - a new opportunity. Then for those businesses that would traditionally have called themselves a tourism business, they're a hospitality business now. The more people go to Tatamagouche or Baddeck for year-round living, the more we're less dependent on the transient, seasonal tourists and more. We have the year-round residents.

To me, the distributed and remote workforce opportunity that people are now experiencing presents a real opportunity for Nova Scotia to have a rural renaissance and rebuild, which will have a beneficial effect on hospitality - perhaps with the exception of the straight up tourist accommodation providers. If people are coming to live year-round, they may need less tourist accommodations. That's point number one.

Point number two would be, it's not either/or. I believe tourism in the near term will be what I'll call digital nomads - people that may not be coming for a weekend or may not be coming for six days, but now may come for two or three months. They live somewhere else, but they want a change of scenery and they now realize their job can be anywhere.

If we as a government and TIANS and Tourism Nova Scotia aligned in the interim, while we can't attract the short stay leisure tourists, we could adapt and get digital nomads to come and experience Nova Scotia, even if just for a month or two, that will be beneficial for the traditional tourism economy, but also create a new avenue for migration.

CLAUDIA CHENDER: I hope that's a yes. Just to link those explicitly in the follow-up, I hear you both talking about the start-ups that are funded that are solving a problem here that can be exported elsewhere. I wonder if there is some market cap disqualifier because I know that there are those kinds of innovative entrepreneurs that aren't big enough, frankly - clothing designers who are working with innovative materials or all of these small businesses that are needing to pivot, for which there is some support.

I know there's the larger start-up and the VCs that we're talking about, but how are we supporting and connecting and growing the really small and medium-sized business start-ups that might not export, frankly - or perhaps might - but really do create that backbone of our economy?

BERNIE MILLER: As far as assessing gaps for access to capital, you've touched on a point that should be top of mind, especially as we recover from the pandemic in the months and years to come. There are programs like the Small Business Loan Guarantee Program, which offers a government guaranteed loan, but it's on the credit side rather than the capital side.

The federal government has been innovative with the Canada Emergency Business Account, but all of this was dealing with access to credit. For the businesses that you've alluded to that may not be in the radar or within scope for innovation-driven entrepreneurship on the Innovacorp side, I believe the private sector is responding - or I would say more appropriately, the social enterprise sector.

Annapolis Royal has a program called AIRO and it's a brilliant example of a small amount having a big impact on these types of businesses. Within the Department of Business, we've been connecting the AIRO concept with other communities and helped facilitate those. That was private sector money and I think there's some value in having it driven at the private sector level.

At the public sector side, I know my colleagues at CCH and the private sector board that leads Invest Nova Scotia consider the businesses that wouldn't fall within the Innovacorp mandate as an area of future focus and an area where access to capital, even as you allude to small amounts, could be very, very impactful.

Some of that goes beyond capital and it's creating places for innovation, so having centres for craft and design, creating co-working spaces, all of these contribute to the philosophy that you're alluding to.

THE CHAIR: Next question to Ms. Roberts.

LISA ROBERTS: I think venture capital would fall into the bucket of cool money as opposed to hot money. It's money that's not looking to get in and out fast. I'm particularly interested in the sort of cool money that does seek maybe problems that aren't quite as exportable which are rural and regional economic development.

Mr. Miller, I'm hoping that you might be able to kind of give me an update on the CEDIFs - the Community Economic-Development Investment Funds - which have allowed communities of interest in Nova Scotia.

One of the very active ones is around local food and food related, I would call it innovation, to raise a pool of capital to invest in for-profit entities or social enterprises within a defined community. Can you give me an update on the present view on CEDIFs and their future use?

BERNIE MILLER: It is an area unfortunately that I don't have a lot of background on. The CEDIF programming has been run through the Department of Finance and Treasury Board. I know that at a high level it is, as I understand it, a very good tool and has been in the past an effective tool. It would be one we would certainly look to as well as other ways of filling the access to capital gap that was raised in the earlier question.

We've been working on the social enterprise side of economic growth, which does fall within the scope of the Department of Business, unlike CEDIF which is Department of Finance and Treasury Board. One of the things we hear from the social enterprise sector is that one of the barriers is access to capital.

There are other models other than CEDIF - co-ops have gotten involved and credit unions have gotten involved in other jurisdictions in creating funds. We have had, through the Nova Scotia Co-operative Council, a pilot program of \$100,000 creating access to capital for social enterprises. We'll evaluate that and that's another avenue aside from CEDIFs that could solve the problem.

LISA ROBERTS: As you've both spoken, I kind of get an impression of a relationship between Halifax and the world or Dartmouth and the world. This venture capital communication is co-Volta and all this conversation happening all over the place.

Is there an orientation towards rural and regional economic development that includes smaller communities across Nova Scotia? Are there other specific goals related to that that orient this work?

MALCOLM FRASER: The numbers tell you, actually, that the majority of our client base is almost split evenly between the city and the rest of the province. A significant amount of those companies, especially in agriculture technology and some of the ocean technologies, as well as some of the software companies, are throughout the province. We work a lot and closely with Ignite Labs. We run a program in Sydney called Momentum that has a maker space and is engaging at that very local community. Paul Richards, who runs our agriculture program, runs out of the Valley specifically as well.

The distribution of opportunities that we see is fully provincial. Certainly, you may hear a little bit more about it, and maybe there are a few more physical assets here than in the rest of the region, but the distribution is quite nice across the entire province.

BERNIE MILLER: I just want to build on the point. It really is important that we start with comparative advantage, and when we look at Nova Scotia, there's 11 functional

economic regions which wouldn't exactly correspond with the counties - we have 18 counties - but we have 11 functional economic regions, and when we in the Department of Business are thinking about growth, we think about the strengths of each functional economic region, which are not necessarily the same strengths.

[3:45 p.m.]

We have been working with various mayors from around the province - initially Wolfville, Bridgewater, Port Hawkesbury and Yarmouth - to create a regional entrepreneur acceleration program that would take the philosophy of innovation-driven entrepreneurship and build it on a regional basis based on the strategic comparative advantage of each community.

In fairness, Halifax historically got a lot of attention, and I know Innovacorp has made it a deliberate strategy not to fall into that trap, and places like the Verschuren Centre in Cape Breton are producing some world-changing technology, but aligned with their comparative advantage. In that case, it isn't ocean-related - it's waste-stream-related.

When we look at Yarmouth, we see its comparative advantage is fisheries and shipbuilding, and they have the Ignite Labs there which is creating entrepreneurs, or at least helping engage and enable entrepreneurs in the distinct comparative advantage of that region.

That philosophy is in its early stage, but I think it's quite important that we don't take a one-size-fits-all approach to the province and build regional entrepreneurship based on the regional strengths. I'm fully confident that every region has the capacity to be extremely strong, and it is one of the benefits of the educational system we have with 13 community colleges and nine universities. Again, we're in a unique position in Canada - we have 10 per cent of Canadian universities here, and that can be an advantage for the whole province.

THE CHAIR: We've got three left. I'm going to probably move to just one question, no supplementaries, so that we can ensure that we get three folks in. Mr. Craig.

STEVE CRAIG: This is for Mr. Miller. I've watched you for some time. I know you're a valued servant here in Nova Scotia, and you wear that pin that you have with pride, as I wear my pin with pride, being a Member of the House of Assembly.

I cannot ask the minister these questions directly. However, I would implore you to consider in economic development - whether they be venture capital, ecosystem participants or what have you - to work within the government to address this housing crisis we do have. If we have people who are making \$100,000 or \$200,000 spending 30 per cent of their income moving to a place where they're paying 15 per cent of their income and

forcing out people making \$50,000, and that trickles down to those making \$25,000 or less, we're not serving our citizens well.

I'm a big process guy and a big model guy and have been all my business career, and here as well. To see how this complex model works and is intertwined - right now, we have a critical factor with housing, so we may want to travel and bring companies here for COVID or whatever it is. If they cannot find a home to live in - now we're talking about reality - this is a pragmatic view. Even if I want to buy a \$500,000 home, I'm going to be waiting to do that because people who want to sell that \$500,000 home have no place to go, one. Two, there aren't enough of them, so what we're seeing are people being pushed out at the bottom and we're seeing that very rapidly.

We need to be able to take a government view and look at housing with the importance that it absolutely does deserve. It's not only for those at a low income that we're talking about. We're talking about all citizens - everybody who wants to live here in Nova Scotia - to be able to find housing. The ones who do suffer are at the bottom of the economic scale.

THE CHAIR: Mr. Craig, if I may - it's an important topic and I understand why you're bringing it forward. Can I ask you if you could link that to a question with respect to start-ups?

STEVE CRAIG: Indeed - if a start-up doesn't have a place to live for their employees, they're not going to come here.

BERNIE MILLER: I'll take that information back to our department and I'll work with my colleagues, as we do, on the priorities of Nova Scotians. The challenge that exists is that the province has grown by more than 50,000 people since 2012, which on one side of the ledger is positive for all Nova Scotians and positive for businesses in Nova Scotia. With that growth comes areas of focus. Absolutely, I appreciate you raising the point and we'd be happy to take it back.

THE CHAIR: Mr. Horne.

BILL HORNE: I have a list here of all the different projects, you may or may not have seen it - given out by one of your groups of start-up companies, I guess. I'm just wondering if you had one or two that you'd like to describe in a little more detail. I could give you examples, but I'm sure you know more than two.

MALCOLM FRASER: So some of the examples of some of the companies that we're working with, and some of the projects that we're involved in? One of the things as a project that has been super interesting this year has been working with partners from the other four Atlantic Provinces to instigate the development of more companies starting in the ocean technology field because funnel was a challenge for that. It was really Innovacorp

that led the way on this to generate this level of collaboration within the region, which is really an awesome thing.

That project received over 300 applications from around the world. I think 30 per cent of them came from Atlantic Canada, another 20 per cent from across Canada, and the balance from around the world. It's really interesting that we have this incredible eye on exactly what's happening in this burgeoning sector.

A couple of interesting companies to talk about. Nexus Robotics is a company out of the Valley that has a robot that will go down your field - your row of produce - and determine with artificial intelligence and a camera what's a weed and what's a plant. Then it will mechanically go and pull the weed out, so it's automatic weeding.

In a time right now when you can't move people effectively to farmers' fields to do that work manually, there's a company that was created in Nova Scotia that can actually solve that problem quickly and effectively. They just finished a very successful trial with large growers in Quebec and in the United States.

I've been working with a company directly called Glas Ocean, which has created a Canadian Transport approved all-electric marine engine for fishing sized boats - inshore fishing boats and tourism boats. This is just coming to market. It's a really incredible tool as we think about the evolution of our tourism sector - not to mention the health and safety of our fishers who are out on the water pulling traps all the time with this giant, noisy, smelly diesel engine around them all the time. This is a giant leap forward in both the effectiveness of that business and the ability to give visitors to our province an awesome experience at the same time. Really interesting opportunities.

Mr. Miller alluded to work that we're doing right now in Cape Breton with the Verschuren Centre. This has happened organically over the last year in that the actual physical assets at the Verschuren Centre, specifically a giant bioreactor - don't ask me to explain that - are an incredibly powerful tool for companies that are growing out of the lab in their university to be able to do a commercial test at scale.

The skillset that Beth Mason has in this facility, as well as the equipment, coupled with our team's resources on commercialization, is actually attracting companies from around the world to set up shop in Sydney, Nova Scotia. We have over 10 companies coming to this location right now. If we govern this and steward this appropriately over the next three years, you can see 20 to 30 companies employing at least 50 to 100 people and attracting hundreds of millions of dollars worth of capital to solve waste-to-value problems.

There's one company, SeaChange Biochemistry, that has figured out a process to extract organic elements out of seaweed: three different types of organic elements that are replacing petrochemicals in our food supply system. Really important changing

technologies that can happen here; very interesting things that are happening there. I could go on, but for time, I'll keep it short.

THE CHAIR: Mr. Ritcey, our last question of today.

DAVE RITCEY: This goes back to one of my previous questions to Mr. Fraser. I'm just looking for a little clarification on the question around expenses. You mentioned that you had additional responsibilities from your predecessor as present CEO. I just wanted to understand a little bit more why there is such an increase in your expenses versus his.

THE CHAIR: Again, this is not the topic of the day. I will give the witness the option to respond to this, but again, it's not the topic of the day. Mr. Fraser, if you wish to answer, you can certainly go ahead.

MALCOLM FRASER: I'll reiterate a little bit that in coming into this role, we are dealing with clients who are trying to sell to the world. It's incredibly important that we are out in the world understanding what's happening out there, both from a capital and a market standpoint.

A good chunk of my effort really, and the expenses related to that which you pointed out earlier, are both travel-based and engagement-based. That is the way that I operated in the first year. The strategy and the results so far, I think, are speaking for themselves.

THE CHAIR: Great. Thank you very much, gentlemen. We'll now move to closing comments. I believe, Mr. Fraser, you are going to do the duties there.

MALCOLM FRASER: Thank you, everybody, for your interest and attention today. We are more than excited about what we're doing at Innovacorp every day and really believe that we are transforming the economy of Nova Scotia through the actions that we're taking.

I think you got a little taste of what we do at Innovacorp. One of the key reasons is why. I don't know if we said this specifically, but all the research tells you that when you look at companies, most traditional companies make up about 70 to 80 per cent of the economy.

There's this small group of early-stage high-tech companies that make up 16 per cent of the companies in our economy. That 16 per cent delivers 50 per cent of growth in economic output and 60 per cent of growth in employment in Canada. That's why we do this: outsized returns for the investment that we're putting into it as a province.

[4:00 p.m.]

While there's all sorts of economic math that really speaks to the impact that we have and the opportunity of activities in these sectors, think about these other reasons. I encourage you all and invite you all to come at any time and sit down and meet some of these entrepreneurs and see some of these technologies. You will be blown away by what we get to show you.

The incredible places to work for our young and not-so-young workforce is what we see in our client bases. These are organizations that can make a difference globally. These opportunities attract and retain our critically highly-skilled workforce that we're looking for and produce in Nova Scotia.

We have a leadership position in the global oceans economy right now. We can leverage that into the ability to make our traditional ocean industries, which we have a lot of here, and a lot of our land-based industries as well out of this, more competitive and more valuable. Let alone the impact that we can have on the climate and the resources such as the ocean and the land that we deal with every day in our economy here.

As mentioned before, we are tracking capital from around the world to invest in these companies. There are a couple recent stories just from last week, and not all of them Nova Scotia-based. A company in Newfoundland last week called Verafin got purchased by Nasdaq for almost \$3 billion. That company employs people here in Halifax because they can't keep everybody over in Newfoundland, and they are growing their footprint here out of this. That wealth comes into this region. Every one of the exits that we see, 70 per cent of that value stays in this region.

You ask Travis McDonough from Kinduct Technologies, you ask the guys from Verafin, you talk to SalesRight - his name just fell out of my head - the first thing they do when they call me, the first thing out of their mouth is I'm going to invest in more companies here in Nova Scotia. That's incredibly important. That is the flywheel that's spinning in our region right now around early-stage innovative companies. It will have a significant impact on our economy, no question. It's a bit of a long game, but the results that we're seeing - it's been invested in by Innovacorp and this community for the last 20 years. We're only starting to see the benefits now.

I'm very appreciative of your attention to what we do at Innovacorp and the outcome that it has on this province and the future that it can build for us. From myself, my team, my clients - these crazy entrepreneurs who do ridiculous things at odds that are worse than a lotto ticket and make it happen - we thank you. I hope that you do come and visit us at some point in time and learn a little bit of what's going on around our economy.

THE CHAIR: Great. Well, thank you, Mr. Fraser and Deputy Minister Miller for bringing us up to date on the work of Innovacorp. As you articulately spoke in your wrap-

up, it's exciting work, and attracting money and jobs to Nova Scotia is a very important part of the economic growth of Nova Scotia. Thank you again for coming here today. Thank you for your work. You may now be excused as we do a little bit of committee business.

I understand we've got a couple of motions to be put on the floor before we deal with our next meeting. Mr. Jessome.

BEN JESSOME: Anticipating that the Legislature is to prorogue this December and that we're presently engaged with what appears to be a second wave of COVID, I'd like to make the following motion, and for clarification this is to ensure that this particular committee business will be maintained, whether it be in person or virtually.

I move that pursuant to Section 36 of the House of Assembly Act, and pursuant to Resolution 2, Section (A) (1), passed unanimously on June 16, 2017, that this committee meet after the House is prorogued for the life of the General Assembly abiding by public health protocols and pursuing a virtual option if required.

THE CHAIR: Thank you, Mr. Jessome. Is there any discussion? Ms. Chender.

CLAUDIA CHENDER: I think we support the motion, but I wonder whether maybe we could get an opinion from Legislative Counsel about what happens to our agenda. I wonder whether there's opportunity for a friendly amendment to just retain our agenda and move forward. I don't know if the agenda gets wiped when we prorogue or if that resolution prevents that from happening.

THE CHAIR: Mr. Hebb.

GORDON HEBB: The agenda will get wiped, and there's not much the committee can do about it until after the prorogation. They can restore the agenda after the prorogation. It would have to either be done by a majority at an actual meeting or unanimously through a poll.

THE CHAIR: Thank you for the clarification. Mr. Jessome.

BEN JESSOME: Just for clarification, my anticipation would be that, regardless of whether the slate gets wiped or not, we would maintain the committee's business as per the agenda-setting process that has taken place to date.

THE CHAIR: If there are no further comments, would all those in favour of the motion please say Aye. Contrary, Nay.

The motion is carried.

Is there any further business? The clerk has been working very hard to rustle up witnesses for our next meeting. I think it's partially to do with COVID-19 and the season, perhaps.

The next topic was to be groundwater provincial testing and notification regime. The deputy ministers have changed so we need to approve that. Although the new deputy minister, Mr. Farmer, is not available due to one of the reasons that I spoke about, it might be possible for someone else from his department to represent him. The clerk was just seeking guidance as to whether this committee is open to that.

Are there any concerns with that? We'll allow the clerk to do her best to try to get us witnesses on this topic for the next meeting. Ms. DiCostanzo.

RAFAH DICOSTANZO: It may be easier if we decide or if we are able to go virtually, the witnesses - make it easier for them to attend, if they have issues attending at this time. Just a comment.

THE CHAIR: Are we in agreement with that? Great, thank you.

The next meeting is December 15th from 10:00 a.m. to noon. That will conclude our meeting today.

[The committee adjourned at 4:07 p.m.]