HANSARD

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COMMITTEE

ON

ECONOMIC DEVELOPMENT

Thursday, October 13, 2015

COMMITTEE ROOM

Ocean Innovation Centre / Agenda Setting

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ECONOMIC DEVELOPMENT COMMITTEE

Mr. Joachim Stroink (Chairman)
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Mr. David Wilton
Hon. Pat Dunn
Mr. John Lohr
Hon. Sterling Belliveau
Hon. Denise Peterson-Rafuse

In Attendance:

Ms. Monica Morrison
Legislative Committee Clerk

Mr. Gordon Hebb
Chief Legislative Counsel

WITNESSES

Waterfront Development Corporation

Mr. Colin MacLean
President and CEO

Innovacorp

Mr. Stephen Duff
President and CEO

House of Assembly
Nova Scotia

HALIFAX, TUESDAY, OCTOBER 13, 2015

STANDING COMMITTEE ON ECONOMIC DEVELOPMENT

1:00 P.M.

CHAIRMAN
Mr. Joachim Stroink

MR. CHAIRMAN: Good afternoon everybody, I'd like to call this meeting to order. This is the Standing Committee on Economic Development. My name is Joachim Stroink, I'm your Chair today.

The committee will be receiving a presentation from the Waterfront Development Corporation regarding the new ocean opportunity of the Coast Guard base.

I'll ask members to introduce themselves.

[The committee members introduced themselves.]

MR. CHAIRMAN: I'll just remind committee members to turn off all your phones or put them on vibrate. This is a new location for some people, so coffee and tea are just out front here and bathrooms are over here. In case of an emergency we'll exit through the Granville Street entrance and proceed to Grand Parade, by St. Paul's Church, and hopefully today on this rainy day it will not happen.

Just one more bit of housekeeping - I ask that I mention your name before you speak, in order that Hansard can keep track of who is going. I will keep a speakers list, as usual. Now I will turn this over to our presenters and you have until about 2:30 p.m.

MR. COLIN MACLEAN: Thank you very much, Mr. Chairman. My name is Colin MacLean, I'm President of Waterfront Development Corporation, a Crown Corporation for the Province of Nova Scotia. I am very pleased to have Stephen Duff, CEO of Innovacorp, also a Crown Corporation of the province, to join me.

Maybe we'll just say a couple of words about our organizations, not taking a long time to situate you, and why we're together working on this project, before we go through the presentation, which we will both be doing.

The Waterfront Development Corporation is charged with redeveloping and revitalizing properties that are on the waterfronts, specifically around the Halifax Harbour and Lunenburg Harbour. The goal of that is to try to redevelop them in line with what the province is trying to achieve economically. Sometimes that's a mixed-use development; sometimes it's the public-realm development; sometimes it's a marine-industrial development; and sometimes, in this case, it is marine of a different nature - more around knowledge and research.

The Waterfront Development Corporation tries to provide a platform for private sector tenancies. All our operations are financed by the revenue we generate from those tenancies. So the private sector operates there, the revenue that we receive we reinvest in the public infrastructure, and this would be an example of one of those cases.

MR. CHAIRMAN: Mr. Duff.

MR. STEPHEN DUFF: Good afternoon everyone. As Colin mentioned, my name is Stephen Duff, I'm President and CEO with Innovacorp. We're Nova Scotia's early-stage venture capital organization and we work with early-stage technologies primarily through venture capital investments, seed investment, incubation, program delivery and services, and business start-up competitions.

I'm here co-presenting with Colin today, because as this vision began to take shape, it became obvious that there is an important role in the start-up community that this Ocean Innovation Centre might play. So early on we engaged in conversation with colleagues on how we may possibly integrate an ocean technology incubation practice, an asset, and a business acceleration component to this proposal, so Innovacorp has been working on delivering that with colleagues. I'm delighted to share that with you as we go through the presentation.

MR. CHAIRMAN: Thank you. Mr. MacLean.

MR. MACLEAN: Thanks very much. The presentation you have before you, I believe you have hard copies as well. We'll go through the overall concept and strategy. I'll touch on the history of how we got to where we are today, how we are together working on something that incorporates Innovacorp and some of the projections into the future of how this project should unfold.

To begin with, you're looking on the cover of the actual site itself. That is the old Dartmouth Coast Guard site on the opposite harbour from where we are today in Halifax Harbour. It has been in federal hands since the late 1800s. It was always dedicated to operations that were either Coast Guard or their predecessor institutions, involved with

charting and helping navigation along the coastlines of Canada, North America, and beyond.

What we're trying to do there is, overall, channel and harness some of the considerable ocean assets and strengths that we have in Nova Scotia, and try to channel and harness that through the operation at this site. Specifically our goals are to increase the number of private sector start-ups in a particular area - ocean industries writ large; ocean technology specifically - and we'll go through some of that. We'd like to grow the number of companies or grow the number of exports that our local companies are engaged in. They are making progress. We'd like to enable them to do more - small- and medium-size enterprises.

We would certainly like to attract new investment. We believe that some of the ocean assets here are of an international scale and reputation, and whether we can attract new investment from outside the region to support some of the goals would be a perfect outcome.

From a very pragmatic point of view - and these are more Waterfront Development pieces of work than the overall piece - it's to preserve access to the harbour for marine business. It seems unlikely in a harbour the size of Halifax that land is actually disappearing for marine uses, but in fact it is. The market favours the redevelopment of properties for mixed-used purposes. It's just the way the economy is going, and so this is a special effort to try to ensure that the marine businesses we foresee as having a very positive outcome for Nova Scotia's economy have access to infrastructure along the waterfront.

Finally, our goal is to do this in a financially self-sustainable way. So the capital that will be reinvested in this site to provide a platform for business, the businesses' rents should offset the amortization so it's a financially self-sustaining business plan.

So how we're going to do it - you see the two Crown Corporations coming together. Waterfront Development's role is on the economic infrastructure - ensuring that the platform for business is there. Innovacorp is uniquely designed and specifically going to target attention towards incubator and accelerator services that speed up and enhance the number of start-up opportunities in a particular area of ocean technology.

Some of the background to this - we identified the site at Waterfront Development back in about 2011. We knew informally that the site was going to come up for disposition by the federal government. They were consolidating their properties down around what we know as the Bedford Institute of Oceanography, and as a result they would have to try to figure out what to do at the Dartmouth Coast Guard site.

They did notify us that they were interested in disposing of the property. We began looking at it through a market study lens. We did a number of one-on-one interviews with local companies, local industry associations to ask them if they see value in the site for their particular areas of the economy. What came back was a uniform "yes" because of the

disappearing marine infrastructure, number one, but in a lot of different areas - I guess not surprisingly the National Shipbuilding Procurement Strategy and the contracts for the building of the ships down at the Dockyard - a lot of companies trying to get involved in the supply chain for global activities. Local companies doing that saw this as a site that would be helpful to their chances.

Offshore and tidal - marine renewable energy-type companies are actually engaged in the products, goods, and devices that are deployed in that industry - a Nova Scotia company is doing it - and to have device testing and access to the water that we'd eventually deploy in an offshore or in the Fundy was seen as valuable.

Port marine services were basic. Everybody felt that was necessary and a lot of the science and environmental marine work - a lot of local companies providing those types of services in an area where we're increasingly concerned about weather - climate change - and the impacts of things such as hurricanes. There's a lot of business in and around that, so a lot of opportunity was identified.

We then took it and looked at the business case: could we redevelop the property; provide an opportunity for companies to rent and lease the property, either on a short- or long-term basis, buildings or lay-down yards or the wharves themselves, which were of particular interest to us; and with that amount of money offset the costs - and it does.

We did a quick economic impact study - the idea being if you were able to operate this site with those number of companies, who would be employed there? So an economist took a look at sort of a typical demographic profile of a number of companies - upwards of 250 people working on the site, their type of occupational backgrounds which would tend to be in engineering, higher-knowledge science areas, and charted out all that incremental activity - what would the outcome be? It was a positive economic outcome. So that's some of the background work we did along the way to actually purchase the property.

The property we purchased in March of the current calendar year - the past fiscal year - I'm going to show you three images. You can see here two major buildings, which I'm going to point out, are going to be kept. They can be recapitalized, they are in decent condition. We did building condition analyses, the federal government kept terrific records, and we just updated them with our own consultants. They can be repurposed for businesses for rental, which is excellent.

You can see the lay-down space in front. A lot of the businesses want access to the water. They need lay-down space for their scientific or other products and device activity that they can load onto vessels or other things. A lot of companies are talking about underwater, remote-operated vehicles and some of the new developments in Nova Scotia, so it performs very well. They look at the site and say there's a lot of opportunity to locate here.

Another image is of one of the buildings which the federal government called the shops building. You can see the 18-foot ceilings, a gantry crane, ideally suited for the type of work that we're learning the ocean technology sector in Nova Scotia is engaged in. They're producing product devices that get deployed in harsh environments so they need to be tested, they need to be developed, and they need to be maintained in this type of environment, and as you can see, rolled out on the flat-top, out onto a vessel and then deployed somewhere, either in our waters or in waters around the world. So it's perfectly well-suited for that and we'd like to redevelop the building to enable that to happen.

Overall you can see that it is a large site. It is over eight acres of site - two finger piers, and wharves - so in total, 2,800 linear feet. It is an absolutely ideal marine infrastructure, and as you can see in the distance, pretty well located for people who need to access financial services for other connections to downtown Halifax.

In the purchase of the site, I throw this one up just because in my experience - this is an editorial, by the way, from The Halifax Chronicle-Herald at the time of the purchase when it was announced - it seemed to really touch a sense of purpose for people, and they said this just makes sense. You'll see in this editorial that it refers to some of our assets that I referred to earlier: the Nova Scotia Community College introduced an oceans technology program; Dalhousie has a long history in oceanography and ocean sciences; the Bedford Institute of Oceanography, and Fisheries and Oceans Canada, a tremendous amount of research-based science over two generations; the Royal Canadian Navy; and the Coast Guard itself. We have a wealth of assets dedicated to the ocean industry and science and research, and our company is growing up around this already - how can we harness that to do more?

This doesn't show particularly well on the screen - I think it may show much better in your handout - but it is a map of Halifax Harbour and some of the assets that I've been referring to. You see that the Coast Guard property is outlined in red, it's just at the centre of a wealth of ocean experience. That's the thing that we're trying to harness here - there are companies already beginning to spin out from these research and other type of activity like the Navy and the Dockyard, but can we stir more of that activity through work at this site?

This is a busy slide; I'll describe it briefly. The goal is economic growth, as you see in the circle below. Just to the right, we've been talking about economic infrastructure so that's the role that we can play. We're not going to direct or invest in individual businesses, we're not going to tell them what to do or not to do. We're really providing high-quality infrastructure that they need and demand.

As you go counter-clockwise, it does fall in line with the government policy that has been announced through the Ivany commission and the subsequent One Nova Scotia report, beginning to focus on how you let the private sector lead. This is a very tangible example of that, providing economic infrastructure for a sector for multiple businesses to use.

Then moving over to the left, we have considerable research and education. People for generations across Canada and across the world, but also in Nova Scotia, have tried to figure out how we can commercialize more of that research and knowledge. We think this is an opportunity to do it in a way that presents a unique competitive advantage as well - our ocean research and science.

You can see that's where Innovacorp begins to bridge the gap between the two. I'll let Steve describe how Innovacorp can begin to commercialize some of that activity, through individuals and groups, and connecting to business and industry, a number of organizations locally: FORCE, the Ocean Technology Council of Nova Scotia, and the Institute for Ocean Research Enterprise at Dalhousie. They're all lending their resources and time to try to shape this the right way.

Overall, we think we can provide a wonderful base for ocean sector tenants and clients, as you see below. It can provide an opportunity for them to grow, for new companies to start, and do it in a financially self-sustaining manner.

This is an early concept for the development of the site. There are two white buildings there that were known as the admin building with the Coast Guard and the shops building. Those are in good shape. They can be recapitalized to provide for multiple tenancies. As Stephen will describe, a portion of one of those buildings will become the site for incubation and accelerating services that Innovacorp will lead.

Overall you can see a lot of diagrams pointing to the wharves; this is terrific marine infrastructure. Through our recapitalization of them it can serve a number of different interests, and that's what's unique - people are seeing that as a unique value proposition. Nova Scotia has these assets, and to have marine infrastructure dedicated to that for multiple businesses is unique.

So at this point what I'm going to do is - I've mentioned the incubator a couple of times - I'll let Steve take you through Innovacorp's role in it and how they anticipate starting up more companies and supporting that growth.

MR. DUFF: Thank you, Colin, Mr. Chairman. Colin has just spoken to the overall asset that we're discussing here today. What I'd like to do now is to go into a little bit more detail on one aspect of this Ocean Innovation Centre that Innovacorp has been working with colleagues on. It is around how we use this as a platform for innovation, commercialization of research and technology that has been developed in Nova Scotia, and continue to foster a spirit of entrepreneurship in the province.

Like a lot of our work, we started with the conversation around - what would an outcome look like? What would a five-year outcome look like on the incubation aspect of this site? We looked at a specific construct of space, which I'll talk to in a moment, but in terms of actual producing outputs on the site, we felt that in five years we would like to see 50 companies formed. We would like to see those companies raise $25 million in

cumulative financing, create 250 jobs, create mentor relationships between those start-up companies and mentors, produce $40 million in cumulative revenue, become a place of employment for recent graduates in oceans technology, as well as immigrants to our province. As well, an important piece of this is going to be a university-to-business partnership establishment. So we started with that kind of, here's what we'd like to achieve, and then began to build a model to accomplish that.

The model you see in front of you is a four-stage model based on four primary activities: seek, seed, start-up, and grow. The two arrows you see underneath those relate to the first arrow, where these activities are physically happening. The second is the nature of funding and capital that's going to drive these activities. I'm going to get into each one of these processes in a little more detail.

The "seek" stage is really about where we find the entrepreneurial feedstock that's going to come into this environment and create companies and create new commerce. So it's really about finding talent and generating ideas. We see this all around us - there's a tremendous wealth of entrepreneurial talent in the province - through our community college; through our business schools and centres of entrepreneurship; engineering schools; computer science; the Ocean Sciences Building program; and last but not least, by any stretch, are the assets that we have with our existing SME community in ocean technology and the Department of National Defence.

We hear and regularly talk to people with deep expertise in a particular area coming out - retiring at 45 and saying, I want to start a company and I've got some deep expertise, and I want to go after this market. So how do we intentionally pull that into an environment where ideation and team formation can happen?

We've notionally called this an ocean tech sandbox. There are colleagues in the room with more sandbox experience than we have, but really this is about where you bring that aggregate of entrepreneurs and idea-forming people into a community where teams can actually form.

Once those teams have formed, we can then put them into a disciplined business process called an accelerator. These tend to be 8, 10, 12 weeks in duration, and they take the teams through some very specific disciplines in terms of validating their product in the market. At this point we're bringing in a cohort of teams, probably a half-dozen to start. We would take them through the playbook, and at the end of that they would either along the way have disqualified or not validated their idea in terms of commercial reality, or they would have come out of that accelerator, graduated, and then become a candidate for the incubator, which is the physical space where they would start their company.

This represents the "start-up" phase. This is about accelerator graduates coming in, this would be the point of company formation, it would be the point where the companies would be raising capital, they would be discovering who their mentors are that they're

going to be working with, discovering customers, and validating products in the market. We call this starting companies and raising capital.

Then finally the "grow" phase is where these companies are actually going out and acquiring customers. They're scaling, they're building out their team, and at a moment in time there will be a graduation event. The best practice in accelerators and incubators is that those entities will graduate into the commercial sector, so whether that's in graduating to the SME community on the site proper or at another commercial location. So four phases and the outcomes we are driving towards with this model.

The key elements in the physical space are really - we're looking at two floors here, the top and the bottom and second floor of what Colin described as the shops building. The top floor we're going to have what we call a clean floor there. That's where companies will be able to form, they'll be able to do the business of the business in these spaces and two different sizes of these, both a start-up which would have about a three-employee capacity, and a grow-out location which would have about a six-employee capacity.

We're contemplating here in this incubator, when it hits full stride, 70 to 80 people involved in these companies. There would be shared meeting room space, multi-use event equipment - all the essentials for having a high-tech ocean company start-up, as well as shared fabrication and prototype development equipment. All of the needs assessment is being driven by a lot of discovery and interviews with these early-stage companies.

Just to the physical space, the second floor I described as a clean room. You see an image there of the footprint. These are kind of categorized into small and large "offices" - I wouldn't characterize them as offices. These are intended to be more open-space, versatile areas, so these are notional allocations of space for different sizes of companies, as well as strategic partners who would be coming onto the site.

The bottom floor, the dirty floor - this is where work happens in the shop. So ocean tech - one of the things that characterizes it, as Colin described, there's a lot of equipment, there are products, there are things on shop floors, on workbenches that you need to test, validate, get in the water, get back out of the water, retest. Initially we're carving off - it would be the far right of this image. That represents the first iteration of the shop's floor, the work space - the dirty space for the incubator.

The remaining two spaces to the left and the far left had the capacity to grow out but we believe there will be some other opportunity in the SME community for those spaces, at least initially.

This work has been remarkable in my experience, and it has mainly been because of the people around the table as we've developed this vision. Key in these conversations and development of the vision and mission for the site have been the Nova Scotia Community College; Colin and his colleagues at Waterfront Development; our team; Dalhousie University; the Institute for Ocean Research Enterprise; and the industry

association, OTCNS. And we've worked with some strategic advisers to help shape this mission and vision.

I mentioned customer discovery. Just some examples now of events that we have been co-leading - participating in - where really we're trying to build the voice of the entrepreneurial ecosystem into the vision for the site. So we've had a number of engagements with companies, with people close to the industry, and that has informed our thinking around the mission and vision for the site.

Some specific examples here on customer-listening insights that we've heard. This is a collection of an 80-plus person consultation, an event that we had at the World Trade and Convention Centre, driven by members of the OTCNS - the industry association - as well as structured one-on-one interviews that the Innovacorp team has engaged in with CEOs, senior leaders, and ocean tech companies.

You see before you there what we're consistently hearing from these stakeholders: we need a space to collaborate, and we need a space with like-minded entrepreneurs and technologies. We'd like the ability to be able to share/use equipment where we have large capital expenditures on equipment needs - the ability to kind of co-operate with that in a shared space, so essentially creating a community. This is about creating an ecosystem and a community of ocean technology companies at various stages of development on that site.

I'll turn it to my colleague Colin, to kind of take us through the mission and vision thinking for the site proper.

MR. MACLEAN: Mindful of the time, I'll go relatively quickly through this. This is the working name that we're coming up with right now - the acronym COVE, standing for the Centre for Ocean Ventures & Entrepreneurship. Within that you'll see Steve talking about a particular identity for the Innovacorp start-up piece.

Overall, what we want to have happen on this site as a mission is to propel the ocean economy - referring back to the first slide. All these assets and strengths we have could provide a focal point to propel what we're doing. It's not to take anything away that already exists, it's to harness it and channel it in the right way.

As Steve said, a lot of this comes around the idea of collaboration around a particular area of expertise. People would be engaged in joint ventures, but how can they learn from that and access markets that they may not have thought of previously, and how can they do it around marine infrastructure, which is the sort of common sense of purpose? That's what we're going to try to do overall.

The vision is to do this at an international level because it's already happening. It's not like we have to create international markets. A number of the companies that we're talking about currently existing are under the radar, and the reason they're under the radar

is because their markets are international. They're doing work around the world. Their marketing efforts are in other places of the world, they're just not local.

So we think that we can provide a focal point, which shows what these companies are doing, enables them to grow further, but then also shines a light on what Nova Scotia has to offer, which should increase more investment from the international side of things, but also provide Stephen's team at Innovacorp the ability to generate more people interest in starting up a company in the area.

The brand personality, which I guess is what you have to do when you do these things - I shouldn't be so doubtful about it - but the brand is, people came up with the idea of thinking about the America's Cup boat crew. I mean, it's people rolling up their sleeves, doing something enormously challenging in a difficult environment, but doing it at a world-class level with a high degree of ambition - people who are experimenting and figuring out what to get done. Within that there will be the COVE start-up yard, which Steve can highlight, and then we'd be available for Q & A if that's okay.

MR. DUFF: Just finishing out then - the incubation aspect of COVE we're referring to as the start-up yard at COVE. A nautical theme to it seems to have resonated with the stakeholders.

The mission for the start-up yard will be to create a dynamic community in which ocean tech entrepreneurs validate and commercialize best-in-class ideas. The vision for the start-up yard is that Nova Scotia will be recognized globally as the leading centre for commercialization of ocean technology, as demonstrated by the continuous emergence of innovative and successful start-ups - again, going back to our targets for the site.

We liked the brand personality for COVE so much that we adopted it for the start-up yard as well, maybe with a little more gusto.

MR. MACLEAN: That's it for us.

MR. CHAIRMAN: Thank you very much for a very insightful presentation. I will now turn it over to committee members for questions. We'll start over here with Ms. Lohnes-Croft and then to go Mr. Lohr and Mr. Belliveau.

MS. SUZANNE LOHNES-CROFT: Thank you for your presentation. I'm very familiar with the Lunenburg waterfront development, as Colin can attest to. Just before I ask my real question, how long were you in the process of purchasing the Coast Guard property?

MR. MACLEAN: We first identified the site in 2011. We completed the market study over a period of three months. We did the business case in six months, so that got us to 2013. Then we had to work with the then-Department of Economic and Rural

Development and Tourism to try to figure out if it fit within their capital plans, which led to the purchase in March 2015. In total, it was about a two-and-a-half or three-year process.

MS. LOHNES-CROFT: It seems from your presentation that you're well on your way with establishing your vision and a plan. What are your five main projects that you'd like to see accomplished in the near future?

MR. MACLEAN: On the particular site itself?

MS. LOHNES-CROFT: Yes.

MR. MACLEAN: I think the first thing is to make sure that the marine infrastructure is redeveloped, and we get out and attract companies that need access to water. In some cases, those will be companies that are in the ocean technology field, but others are simply companies that by nature of their marine business, are periodically or always in Halifax Harbour, so it provides them access and support to things. It's shared infrastructure. A common-user wharf would be one of the number-one things, a common-user wharf that is available to multiple businesses and not dedicated to just one business.

I think the second thing - and these aren't in order of priority, just to be clear - would be the work that Innovacorp is describing right now - and I'll let Steve talk to that - so an opportunity for more business start-ups.

I think the third thing would be some international attraction of business in this field of ocean industries and starting writ large. But it does strike me that we have a distinct advantage in Nova Scotia in fields of ocean technology. By that, to be specific, there are companies that produce sensors and other data-gathering devices that are deployed in ocean environments, either underwater or on the surface of the water, that are useful to business. Our companies do that and they do in a joint venture way around the world. So because they're already in global chains, having other companies in those chains - they could be as far away as China, southeast Asia, or as close as New England - coming here and seeing our expertise and wanting to locate here because of the work that we're doing would be enormously important. So international attraction would definitely be one.

My personal hope is that it would also make a connection with NSCC, Dalhousie, and other post-secondary institutions - I think Steve will describe where our entrepreneurs are going to come from. Likewise, I would apply the same thing to the Navy, and federal and other labs. There are people there - particularly in the Navy, for example - who retire earlier in their career than most people and they're absolutely ripe as a start-up opportunity. Again, Steve can talk to that. Those are some of the things that come to mind.

I guess the last one I'd have has nothing to do with the immediate economy. I visited at one point during our journey the research institute in Portland, Maine - very close to us. It's called the Gulf of Maine Research Institute. One of the things they do, on top of helping sustainable fisheries and ecosystems in the Gulf of Maine, is they connect with the P-12

system. So students are beginning to explore science and technology, through the lens of oceans, at a very early age. Their goal, whether or not they've succeeded, is to have every Grade 6 or 7 student in Maine go through that institute for at least one day in a year. So they're exploring science and technology, but because they're exploring through the lens of oceans, they're beginning to recognize what they have there.

I think we have more and I think that would be an interesting thing to do, but that would be more than a few years off, that's for sure. Sorry, I'm probably stealing time.

MR. DUFF: Again, in no particular order, I guess some of the most important things would be - physical space is extremely important in a start-up environment. Getting the physical space right, to allow that space to become a destination so that people will want to aggregate there when it comes to discussing their business idea or finding like-minded entrepreneurs or co-founders. We've got notional kinds of designs on space so I think the next step is, how do you then actually create that physical space?

The second is robust program delivery around the acceleration process. So ocean tech - although we use one handle, it has many dimensions to it - everything from oil and gas to ocean monitoring to sensors to transportation. Entrepreneurs with ideas in all those spaces will need to be able to come into start-up acceleration programs where we can bring specific mentors together to help them advance their thinking and validate their product in the market and their product concept in the market. So getting the acceleration piece thought through and completed is going to be important.

I mentioned mentoring in that; mentoring is an enormous component of a robust start-up ecosystem. We have experience with colleagues in Cape Breton through the Cape Breton Partnership who have adopted a mentoring technique that was actually developed at MIT a couple of decades ago. It has been employed in the start-up community in Cape Breton very successfully, and we expect to be tapping that expertise as we model the mentor program for the site here as well.

I guess I'd overlap with Colin's comment about getting the physical infrastructure so we can have the start-up yard done, but if we don't have the wharf refit and other infrastructure activity on the site completed, it's going to constrain the ability for that start-up ecosystem to grow.

I guess the last piece would be around further articulation of the funding model. As we go through the lifecycle of company growth - from idea formation to start-up to growth capital to perhaps exit or acquisition capital - what are all the pieces and who are the private sector partners that are going to be participating in those financings at each stage of companies?

MR. CHAIRMAN: Mr. Lohr.

MR. JOHN LOHR: Thank you for the super presentation and it clearly is a very well-positioned site. I guess as you just mentioned, Mr. Duff, the funding model - that was really the gist of my question. I'm just really wondering, how much money will it take to transform that property - what kind of capital outlay do you see in the immediate future and what sort of annual budget? I think Mr. MacLean said the hope was that it would be self-funding at some point, but clearly there will be some public money going in initially to get it to where it needs to be. I'm just wondering, what types of dollars do you think are required?

The second part of that is - I know it's October and you've had it since March - I'm just interested to know what has happened since March on the site. What have you already done on the site in particular? I'm really interested in the funding model.

MR. MACLEAN: The funding model requires a capital investment in the wharves and the buildings to get them to a state where tenants would come in and lease or use it short-term. The estimates that we have are $12.5 million to do that work. The rental income that we expect to have - and it's based on market rates here in Halifax and marine rates, including those that are short-term, would generate enough revenue to cover off the amortization for the site. So there would certainly probably be a one- to two-year phase-in as you're out recruiting tenants, making it available, and trying to select the right tenants that contribute to the overall concept. But the business plan model is for all the revenue generated from the tenancies that will cover off the capital cost.

I'll let Steve talk to the Innovacorp element of it. In a manner he's one of our tenants, so to speak, but one that's more of a partner in the piece. I'll let him talk to any particular funding ideas that they have.

As far as the site currently, we've had it since March. If you look out there today you'll see a vessel, but that's an exceptional circumstance. MV *Princess of Acadia* is over there right now. That vessel is going to be part of a joint military exercise off of one of your colleagues' constituency's coastline, down in the Yarmouth-Shelburne area. So since it was part of an international military exercise - that boat is going to be the subject of an exercise - they had nowhere to put that vessel, so we've just docked that vessel for the time being because they had nowhere else to go.

We'd like to get the work done before we'd actually begin taking vessels because the longer you let the vessels bang up against it, you're going to run into difficulties. So that's what we're in the process of doing right now. We're just taking custody of the site, so we have 24/7 security now that the vessel is there, put all the basics in place. We've cleared some of the debris out of the way that the federal government hadn't done, so it's ready to go, so to speak, but quiet at this point in time.

MR. CHAIRMAN: Mr. Duff, did you want to add anything to that?

MR. DUFF: Just in terms of the revenue model that would be adopted. As Colin mentioned, Innovacorp would be a tenant on the site, so our landlord would be Waterfront Development and we would have our 10,000 square feet that we would be using to accomplish what we're trying to accomplish in the start-up community. Although we don't have a fully vetted budget at this point, we contemplate that revenues would inure from the tenants on the site.

So we have a golden rule here which is when a client enters an incubator as a company, they pay rent. It may not be full-market rent, although in most cases in our incubators they actually pay premiums because of the infrastructure that they have access to. So part of the revenue stream will be tenants onsite in start-up companies. That will help underwrite the early-stage ideas so the accelerator program and the sandbox for ideation - those are things that we want to help support because they're going to be the future companies that come into the incubator. I think that's what I would add.

MR. CHAIRMAN: Thank you. Mr. Belliveau.

HON. STERLING BELLIVEAU: I certainly listened intently to your presentation. I want to point out that ocean technology certainly is a highlight and a lot of people are paying attention to that. What I observed in your presentation was the lack of attention to the traditional fishery.

You made reference to the Ivany report, the economic growth, Ivany did that and we're now going into the second year. In our traditional fishery, the Ivany report suggested to double fish exports. I'm just going to suggest to you that presently there is an economic boom in the boat-building industry in Nova Scotia and they're facing a lack of tradespeople. Our water temperatures are rising, species are moving, and I'll use this for an example - I'll get to my question here. District 33 lobster area is trying to expand, as we speak, with larger boats and they can't get their harbour dredged - a lot of them - to the capacity of the vessels that they're trying to expand. They know that these species are out there, Ivany has reported that, but I don't see anything in this talking about the traditional fisheries. Have I overlooked something or can you shine some light on that?

MR. MACLEAN: Thank you for the question. The first service it could provide, and there's nothing specifically identified for any exact marine business - it's an enormous marine facility and it can operate as such, so there are a number of businesses that have got hold of us for that reason alone.

The second thing we've noticed since we've begun the process, and people have noticed it, is that the fisheries are increasingly beginning to use various technologies for mapping, as many people would have heard. Some of our companies are getting very sophisticated in understanding where the best grounds are. So there is a technological aspect to that.

Beyond the marine facility and ocean technology, as well, being proximate to NSCC and some of their work does begin to get into the ability to extend, if necessary - if people demanded it, we would absolutely provide the help.

Years gone by, they took over the School of Fisheries in an amalgamation and have the Nautical Institute. So by their very nature, they have a footprint all around the province and so there is absolutely an opportunity to leverage whatever expertise goes here to complement some of the work they're doing with industry.

So you've got the marine infrastructure, you've got ocean technology, and you've got NSCC. I think the main point is to ensure that people understand that it's a marine facility for Nova Scotia's economy. It's a large, large site and so if the demand is there, that's what we'd like to be able to respond to. If that was in the fisheries industry, that would be excellent because I think you have properly identified some of the opportunities that exist there.

If it was in the offshore marine renewable, we would respond to that as well. So it's providing some kind of flexibility. The main point is that it's shared infrastructure for multiple companies where the demand is so that when opportunities do come up, or challenges come up for them, that they know there is a facility that they can rely upon. That's the way I think - we're fairly early days into saying it's specifically for one thing or the other, I guess with the exception it became very clear to us that ocean technology actually bridges across a number of different sectors, and for that reason, it seemed quite obvious to us that we should try to enable some of the start-up activity that Stephen identified.

MR. CHAIRMAN: Ms. Miller.

MS. MARGARET MILLER: I'm really enjoying this presentation today. I'm from Hants East so we don't have a lot of shoreline that's usable for anything like this so it's certainly great.

I just want to comment on the name COVE - just something about it, I think, is wonderful and I think it's going to work really well. You as developers must be so excited to be able to see that you're bringing forward something that has so much potential. It must be exciting to get up in the morning and see what's going to happen the rest of the day.

The question I do have for you is to talk about some of the challenges because we know there are always challenges - there are things in the way that hopefully don't stop you from realizing your dream. So as an organization generally speaking, and if appropriate, how can the government assist you in overcoming the challenges that you're facing?

MR. MACLEAN: I think the one thing that's always helpful is providing a policy environment in which a Crown Corporation can work. Our shareholder is the Province of

Nova Scotia and so we should always be responding to what the province sees as the economic opportunities before us. So how we go about identifying lands and recommending how they should be redeveloped should align with that type of resource piece.

Secondly, trying to coordinate with a number of different Crown Corporations or different agencies or different provincial departments - it's why you see two Crown Corporations here today sort of lined up with our time and our resources to try to make something happen. So I think that sort of policy guidance, that sort of clear articulation of goals, and that type of expectation that the resources of the province - in this case, Crown Corporations - are aligned around something, is not to be underestimated. That is enormously helpful. I don't know if Steve has anything to add.

MR. DUFF: Not add, but I think augment the alignment point that Colin referred to. You would have noted that there were several organizations that had been involved in the kind of thinking, the vision, and the strategy for the site. The ability of our shareholder to bring the conversation to a point of urgency almost and ensure that Crowns and agencies are aligned and moving towards a common objective, in my view, has and will continue to be very helpful.

MR. CHAIRMAN: Mr. Dunn.

HON. PAT DUNN: I'm curious, along the Eastern Seaboard you did mention about Portland, Maine - the Gulf of Maine Research Institute. I guess my question would be, are there other research hubs along the Eastern Seaboard? Is that competition for us, or are we at an advantage where we are in Halifax? I'll get you to comment on that.

MR. MACLEAN: Thank you for the question. It has been very interesting. What we've discovered is that there are a number of research institutes. The Gulf of Maine Research Institute is primarily research; they draw upon scientists from the University of Maine and elsewhere. They have some support primarily in a sustainable fishery in the Gulf of Maine. It tends to be around branding and marketing, sort of, so a lobster from the Gulf of Maine is branded in a particular way, so they do provide some support.

There are a lot of research institutions - the University of Hawaii, Europe has a number that we've looked at, and Boston has some. Then we found a lot of commercialized sort of hubs, I guess they're called. For example, the University of Waterloo in Kitchener, people have heard a lot about Communitech, which is sort of an offshoot of a lot of the work that has gone on there in information and communication technology but not in oceans. So the oceans tends to be very research institute-heavy, and the information and communication technology tends to drive the commercialization.

What we've found, and I'd be interested to see what Steve's take is - we seem to have one foot in both. There have not been a lot of ocean commercialization hub initiatives like this one. I posit that one of the reasons is because there are very few jurisdictions with

the type of ocean assets that we have in a relatively small population. So I think we're becoming much more aware of it, and because a lot of others are actively trying to commercialize research, we're much more interested in doing it in the oceans field. I'd be interested if Steve had any observations that were different than mine.

MR. DUFF: Thank you for the question. What came to mind as Colin was talking was an exercise we went through on the kind of key stakeholder group when we put a line on a white board, and the continuum was pure research on the left and on the right was pure commerce. We benchmarked a lot of these sites that Colin referred to and tried to kind of position where they fall, and where we fall to be uniquely differentiated.

You will have seen in a lot of our brand mission and vision that commercialization is an important dimension to this but not exclusive, because if you go too far on the commercialization side, you essentially end up with a real estate play for profit; too far on the research side, there's no commercial outcome. So we're really intentionally trying to dial that in uniquely different than the other entities that we've benchmarked.

MR. CHAIRMAN: Ms. Peterson-Rafuse.

HON. DENISE PETERSON-RAFUSE: You both can give me a response to this question. I want to thank you for your presentation and the vision that you both have. I think it is vitally important to the economy of our province and moving forward with something that's as innovative as ocean technology. Of course, as you know, we are three-quarters surrounded by ocean and it's great to see that this is coming together. It's something we've always supported.

The question I have is with respect to the businesses that you need to attract and where they need to be in terms of their own business success and vision to be able to be part of the network and vision that you have for succeeding.

I know we did have a witness in our committee here in 2014 and he spoke about his ocean innovations and his business. One of the things he brought to the table was that at that time the Economic and Rural Development and Tourism grant programs were very important as a foundation for the success of his business. He found they were very beneficial.

I'm just wondering, since that department was quickly dissolved, could you each comment on where those grant programs are being administered now; do you have an awareness of what is taking place there and whether they still exist?

MR. CHAIRMAN: She's referring to Jim Hanlon.

MS. PETERSON-RAFUSE: I guess what I'm referring to is anybody who is in the ocean innovation. You're going to be seeking out all different types of businesses to be

part of this whole entire development vision, so their level of success and where they are is going to be very important as your solid foundation to make your vision successful.

MR. MACLEAN: I guess my comments will be more hearsay. We don't get involved - the Waterfront Development Corporation doesn't offer any grants, we aren't involved in any grant programming or anything like that. What I can say is that from the companies that we've been engaged with to try to develop the concept that you've seen and some of the companies that want to locate there, they've been speaking - and I suppose it's because they're speaking to us - they're more interested in the shared infrastructure.

It's very difficult for a company to have the capital to invest in even part of a facility like that, that they use only on a periodic basis because the nature of their work is not to dock up all the time, because it's coming and going. So that shared nature and looking for economic infrastructure is what they're most interested in.

I know that some of the companies talk to me about SR&ED financing so the type of federal programs support some of the R & D activities. I know that some of the companies are interested in the export-oriented, learning how to grow their exports, but I can't comment directly. I have no direct knowledge of the grant programs because I'm just not involved with them, so I don't know.

MR. DUFF: Specific to the question, I think as companies go through their lifecycle, different financing instruments are more relevant at different stages. In Colin's case where you've got an existing SME that's generating revenue, has employees, is in market with customers and products, those to me fall into the traditional financing models - you rely on your NRC, your federal IRAP to do your research, you rely on your SR&ED to help support that as well - Scientific Research and Experimental Development - and traditional sources of debt financing through various mechanisms, as well as shareholder equity in these companies, perhaps a strategic investor from another company that's looking at the technology and say, that's going to be interesting to our company with that product in the market so we'd like to invest in that.

I think going further upstream is where it's important that we have the right kind of support for the start-ups - this would be pre-company. So as they get into actually forming companies, Innovacorp has the ability to invest in early-stage technology companies through the Nova Scotia First Fund, which is our venture capital fund. We also have the ability to deliver the Productivity and Innovation Voucher Program which allows a business to go to a university researcher to get some specific expertise from them.

The final component we have is the Early Stage Commercialization Fund. That fund allows for researchers to advance their technology to the point of commercialization. The Productivity and Innovation Voucher Program and the Early Stage Commercialization Fund are programs we deliver that I'm familiar with that can help support early-stage start-ups. Once they are then in the growth phase, we have the ability to do venture capital. We also bring in strategic co-investors in our investments as well.

MS. PETERSON-RAFUSE: Thank you very much for the answer, they were both great answers. I'm just wondering, do you have in mind some specific companies? As a layperson - this is your world so you have in your heads who and what type of businesses. You may not be able to give names, but what types of businesses if I went out and I was speaking to somebody and I was promoting what you were doing and I'd be able to say, this is what these types of businesses would be doing there? Could you both just give me a brief . . .

MR. MACLEAN: The businesses that have approached us with interest, people who operate a business that has a boat is a very basic business because there's an enormous amount of wharves. It can be a large vessel, multiple vessels, or small vessels. They can be manned vessels or unmanned vessels. So vessels that need a dock space are some of the very basic pieces.

The other companies that are interested in that are the ocean technology companies, and Steve will certainly round out from his experience. I'll describe a couple of them to try to give a sense. There's a company locally that operates in six different jurisdictions around the world, they are a science and research company. The science and research that they do is in the field of acoustics so it's underwater acoustics. These are primarily scientists and engineers - software engineers.

They design big devices that will probably look like a torpedo, but can be dropped into the water either to circulate themselves or attach to a buoy, upon which another local company actually makes small transistors and sensors that get attached to the torpedo and they gather the data from around the world, and they're in environments that might be an industrial development. It could be in western Africa where there's offshore exploration development going on, and so the requirements are to understand the marine habitat - to actually gather information that's part of the regulatory process.

So they would be deploying devices in that environment. They'd be gathering information. That information would be analyzed using algorithms that they've developed here in Nova Scotia to produce reports and recommendations and then a business plan for their clients, in that case offshore - so two companies locally involved in science that are operating in a marine environment.

As they develop these ideas they'll want to access a vessel, as they test some of the devices. Some they might just test in our own waters or over the side of the wharves. They'll want to access electrical companies to do the circuit boards that are part of this device. They'll be looking for machinists that can help to construct, so it's a bit of a cluster of activity.

So in that, you've got trades operations in machining and electrical; you have science and engineers in designing and deploying devices around the world; you have marine business involved in that; and the sensors themselves are another type of science that gets involved. So it's quite a breadth of activity and the Ocean Technology Council of

Nova Scotia is your perfect one-stop shop to understand, as I have just come to learn, how broad this scope is. I probably talked too long.

MR. CHAIRMAN: Mr. Duff, do you have anything to add?

MR. DUFF: I think I would just wrap up that excellent commentary into what I've heard as I've discovered this sector: we really have a core competency in Nova Scotia around sensors, platforms, and analytics. You can take that expertise and put it in different market segments. So to Mr. Belliveau's earlier question about the fishery, there's nothing specifically articulated in the fishery here; however, these are technologies that are empowering to challenges that fishers have in Nova Scotia - where is my stock, how can I get it efficiently, how can I not catch things I don't want to catch? So using these analytical platforms, sensors, and analytics to help enable that and solve problems in that sector as it would solve problems in oil and gas, transportation, and other sectors associated with the oceans.

MS. PETERSON-RAFUSE: Excellent answer, very intriguing. Thank you.

MR. CHAIRMAN: Mr. Mombourquette.

MR. DEREK MOMBOURQUETTE: Thank you for the presentation; it was great. It's good to see you again. We had the opportunity to meet in my previous life. My question is a little more specific. I use Cape Breton as an example because that's where I'm from, but I guess it would be a question that would pertain to all areas outside of the Halifax area.

My first question is, what does the relationship look like in Cape Breton right now? I know the Verschuren Centre is involved with clean technology. What does that partnership look like and are you getting any interest from companies out of Cape Breton right now?

MR. MACLEAN: Do you want to start that? I can follow up.

MR. DUFF: Certainly my colleague on the ground in Cape Breton, Bob Pelley, as well as two of our directors from our board of directors, are intimately connected into the community there.

In terms of specific company opportunities that we see here, I see this as geographically agnostic in the sense that once you create a centre of attraction for oceans technology innovators in Nova Scotia, that can be both physical and virtual. I see activity at Verschuren where there's an ocean dimension to it. We will be ensuring that our boots on the ground there are integrating that activity into COVE and the start-up yard. This is a starting initiative and has the potential to go from there.

MR. MACLEAN: I guess the only thing I would add is, along the way of this journey and the market study - and this will apply to your question specifically about Cape Breton - we heard from companies in an industry association about tidal energy and marine renewables which, when I first heard it, didn't make any sense to me because I thought the locus of that activity is in the funding. Why would they be interested in the site?

If you understand the nature of their business, they want to access research assets, then they want to access a spot where they can begin testing devices. They saw those two things as possible to happen at that location across the water because there would be a clustering of like-minded companies and like-minded individuals from post-secondary education. What that tells me is, there will be field deployments in different sectors or in different locations around Nova Scotia and different economic activity in an ocean environment around Nova Scotia that can take direct access either on a short-term or a network connection to this particular site. That's what seems to be happening even before we start.

MR. CHAIRMAN: Mr. Lohr.

MR. LOHR: My question is for the Waterfront Development Corporation. I know that usually in a normal incubator-type set-up, there's some human resource provided into that, too, and I don't think I heard you mention that. Will you be providing any scientific expertise right onsite there, and how many employees do you think this site will have on the management or assistance to the companies?

MR. MACLEAN: Well, two parts to that; the actual incubator will be Innovacorp, so think of us as a landlord and we'll have some property management responsibilities onsite. The companies that locate there will be taking care of their own business and their responsibilities, and we'll be a landlord. We'll make sure that the infrastructure is managed in a particular way that maximizes access, so people don't freeze out others and that we do foster the kind of collaboration that needs to be done - selecting the type of companies that allow us to build overall. But we will have a very limited employee base over there, other than just the property management side of things.

As far as the incubator goes, which is a little more intensive type of activity, I think Steve could or will be able to better respond.

MR. DUFF: Thank you for the question. We would envision our activity in the incubator being delivered both through Innovacorp staff and strategic partners directly, so we will be reaching out for the kinds of expertise we need to deliver various pieces of the program. Some of that may reside within Innovacorp today, a lot of it will not, so those will be the kinds of experts and partners that we'll be engaging in.

They may have a virtual presence there, they may have a physical presence there - it will be on the user needs as we further define that.

MR. LOHR: Just back to Mr. MacLean, about the $12.5 million anticipated capital outlay to start up, where do you expect that $12.5 million will be sourced?

MR. MACLEAN: That will come from the capital budget of the province. We're an independent company but our sole shareholder is the Province of Nova Scotia. So even if we took a loan independently, it would still hit the books of Nova Scotia.

It will have to come through the capital budget of the province or in some ways accessing various infrastructure programs that would exist at the federal level.

MR. CHAIRMAN: Mr. Belliveau.

MR. BELLIVEAU: In your presentation and throughout this last hour or so there has been a lot of talk about ocean technology, especially tidal power - I've heard that. To me, whenever we talk about this, there always seems to be very little attention paid to wave energy. This is something that actually can develop right across - anywhere we have water.

My other observation is that we talk about tidal, and to me it's always the major production - it's always the largest scale. So my question is, who is going to go out and find these companies to deal with wave energy or the small-scale tidal turbine? Who does that?

MR. MACLEAN: Our role at the site would be to promote the site as any particular location that we have. Whether it be Lunenburg and we're promoting the development opportunities there for companies to locate because it's a working waterfront and a UNESCO World Heritage Site, or in the case of the Halifax Waterfront, which is primarily mixed-use development opportunities as well as a lot of tourism, we promote those opportunities in the right markets through the business placement opportunities: advertising, sometimes commercial real estate brokers, and sometimes very loud calls that are put out through our RFP processes and things.

I think in this case, though, it's an excellent question because we can do more as a province than just that type of activity, which we're fully capable of doing and we're used to doing and everything else. I think it's identifying the markets around the world that we want to connect to. That will come through activity with Crown Corporations like NSBI, who is suited for that, to make sure they reach out.

Surprisingly, or not surprisingly, Dalhousie - not that it should be a surprise, it's just that they're not usually involved with business activity - because of their research and their international reach, they're involved in places around the world that are perfectly well suited for the type of businesses that we want to reach as well.

So I think there will be multiple reach-outs, but there are certain organizations that will be doing more than others. In our own case, it's making sure that we promote it in the right places, but I think as an economic outreach, there will be organizations like NSBI,

partners like Dalhousie, and Innovacorp itself reaching out. The start-ups would be sort of a different niche again, so I'll let you chat about that as it relates to wave technology or other new developments in industry.

MR. DUFF: At Innovacorp, one of the instruments we have available to us under the Nova Scotia First Fund is the Clean Technology Fund. Through that fund and the folks that manage and work in that environment on a daily basis on our team, we regularly engage with small tidal entrepreneurs and wave technology entrepreneurs. I'm familiar with a couple that are active conversations at this time.

I think from a Nova Scotia-based development, Innovacorp is suited to work with those entrepreneurs and help connect them to the technologies they need to bring those products to the market. From an attract-from-away point of view to your question, I think I would agree with Colin that those are mandates suited to Nova Scotia Business Inc.'s mandate and certainly a lot of connectivity through the ocean science community, through our universities. Many connections that have kind of resulted in commercial opportunities, you can trace them back to a university-to-university connection.

MR. CHAIRMAN: Ms. Miller.

MS. MILLER: I have a question for you, just in looking forward to new ideas and projects, because I know you've been very open to that. What kind of advice can you give any young entrepreneurs looking to work with the Waterfront Development Corporation?

MR. MACLEAN: The first piece of advice for a young entrepreneur looking to work in this field is direct them immediately to the man on my left, Stephen Duff, because that's exactly what the work he's doing is designed to promote.

MR. DUFF: Thank you for the question. Because it is front and centre right now, I would say, encourage them to enter the Innovacorp I-3 Technology Start-Up Competition. The deadline is Thursday at five o'clock. One of the new dimensions to that this year, we offered entrepreneurs the opportunity to submit their proposals prior to the deadline in order to get feedback. Unfortunately, we got what we asked for and I can say that our team was working vigorously over the Thanksgiving weekend to get feedback out to 74 entrepreneurs that submitted in advance. I think that bodes well for what we're going to see when the call ends this Thursday.

The last competition attracted 228 submissions across the province, a 60 per cent increase over the last time we ran the competition. I want to see both the quantity and the quality of submissions increase this year.

MR. CHAIRMAN: Mr. Dunn.

MR. DUNN: I guess this question revolves around timing, and timing is so important with things that we do. I guess I'm curious with regard to any interaction or connectivity with the naval shipbuilding project that's underway. I can see the two of them with acquisition of human resources and technology and experts and so on - with this type of research facility, it just seems like the timing is very, very good for this centre to be up and running. Maybe you could comment on that.

MR. MACLEAN: From speaking with Nova Scotian companies and then also companies that are looking to locate here for the purposes of the contracts at the dockyard, one of the things is that the RFP process that the federal government and the Dockyard engage in is very public and they're all very knowledgeable of it so their planning cycles are pretty specific, which bodes well for Nova Scotia companies. When they're intimately involved with that value chain, they know exactly when things should happen.

We can line it up in some particular way, but really what we're lining up is the ability to provide any companies in any sector the opportunity to use the site. So if we are able to provide a response to the demand from companies saying I'm looking to bid on these contracts, this is when it's going to be happening, that gives us a good time horizon and those are the types of conversations we're having right now.

It's not guaranteed that they're going to win any part or portion or small piece of that contract but they're planning for it right now. So you're right, if you can get all those things matching up, it provides a leg-up to companies here in Nova Scotia.

MR. CHAIRMAN: Ms. Lohnes-Croft.

MS. LOHNES-CROFT: Your waterfront development projects are always - the goal is to be self-sustainable in the long run. Is this also to be a project that will be self-sustainable?

MR. MACLEAN: Yes, the whole business case is built off being self-sustainable.

MS. LOHNES-CROFT: So how long do you project it to take before you can be self-sustainable?

MR. MACLEAN: The business case we have projects self-sustainability at the end of the second year of operations.

MS. LOHNES-CROFT: Great. So where you're in partnership with a lot of academics - I see there are 600 scientists, engineers, and other researchers involved with the Bedford Institute, and you'll be very much part of that, so then Nova Scotia alone has 450 Ph.D.s in ocean-related disciplines - do you plan to bring students to the site? Are there going to be classrooms and laboratories that universities will be able to use to bring students in for hands-on learning?

MR. MACLEAN: There is the potential for that, it would depend on the interests of the university or the community college itself. There are no firm, fixed plans right now to do that but the site would certainly allow it to do that.

I know the observations of some of the companies are that the range of disciplines and occupational levels involved in these businesses range from Ph.D.s to apprentices, so there could be a remarkable collection of people there. When Steve Duff showed earlier in the presentation that Dalhousie and NSCC were intimately involved in the development of the division and mission, it was because they're interacting with industry and they want their students to be involved with those opportunities. So even if they don't physically locate on the site, I feel very safe in saying that they would want their students to be accessing those opportunities as work placements, co-op programs, or early-entry, including what Stephen described as the opportunity for start-up businesses, coming right out of graduation at the community college or one of our universities.

MR. CHAIRMAN: Mr. Duff, did you have . . .

MR. DUFF: Not a lot to add, but I think student engagement in the sandbox activity is the essence of the sandbox activity. We want to be building an ecosystem there where we're supporting all the elements of company formation. That goes to bringing new entrepreneurs into the purview of the sector. So I believe in the way we've modelled it is - both NSCC, the Oceans Technology program there, and Dalhousie University - we would see student engagement coming in for site visits, for programs, for functions, to give them the opportunity to interact with ocean tech entrepreneurs and existing companies. That's going to inspire students who are interested in the sectors to take a step forward and become part of that community.

MS. LOHNES-CROFT: Like the model that Mr. MacLean was speaking of in Portland, where the goal is to bring every student into the facility, is that one of your goals as well?

MR. MACLEAN: Just to be clear, that's Colin MacLean saying that. Colin MacLean who is formerly a teacher and when I saw that facility - I went there for reasons around its economic development mandate and understanding how they connected ocean research to the development of their particular industry in the Gulf of Maine. What I came away with and was struck by was this initiative with the elementary and junior high school system. So please don't treat that as anything other than Colin MacLean was interested in seeing that happening.

To study science and technology through a lens, which is so relevant to young people living in a particular place, you wouldn't see that happening in the plains of Saskatchewan - the prairie. Studying science and technology out there would be a subject matter that was relevant to them. To see Nova Scotians do it in something so highly relevant to our way of life seems like an opportunity, but that is completely a personal statement.

MR. CHAIRMAN: Mr. Lohr.

MR. LOHR: Could you just go back to the very first slide you had - the title slide? My question is, when I look at that eight acres - it doesn't quite look like eight acres to me - were those buildings in behind part of the property or is that eight acres there?

MR. MACLEAN: No, the buildings in behind, even though they're made out of the same exterior material, are actually private residential facilities. The eight-and-a-half acres actually is the flat laydown area that you see in the forefront.

These buildings back here are private residences owned by a developer - they're residential leases. This right here is part of the facility. This building, this building here, and that entire laydown area up until this point - so including those piers. The property itself actually goes out like that; it's actually 20-some-odd acres, it's called a water lot. But the physical land that you could stand on today, which I'm just outlining here, is eight-and-a half acres.

It would be the same if you looked down the street today and came off the Halifax-Dartmouth ferry on the Halifax Waterfront and started walking down past Maritime Museum of the Atlantic, the playground, the Wave, and got to the green building known as the Summit Place building - it's called the Green Toad as well. It's a very large site.

MR. LOHR: So that area, presumably that would be for moorings or whatever - you'd have the right to have moorings there or prohibit moorings there?

MR. MACLEAN: It provides the rights and opportunities for using the area either for docking facilities, or interestingly, some companies have been asking whether or not you could put some kind of buoy system or platform out there so that they could test devices off of it in a saltwater environment rather than tanks. For those who are familiar, DRDC operates what almost looks like a houseboat in Bedford Basin, so that type of thing - actually, below there are a number of sensors and acoustical equipment. So something like that.

Some of the private sector people have been asking about it. Yes, there is an opportunity. It gets into jurisdictional matters. You have to make sure you're not offending the responsibilities of Transport Canada at the federal level - nautical rules and marine traffic - and you have to work with the Port Authority, which we do all the time, but it's possible, yes.

MR. CHAIRMAN: You have about five minutes left if you want to put closing comments, Mr. MacLean and Mr. Duff.

MR. MACLEAN: Well, I certainly won't take long for closing comments. It was very nice of Ms. Miller to ask whether or not we were excited. We don't often get excited because you're just always solving problems and there are a number of challenges with

putting together something of this size. But what has been enormously heartening is how many people have come out of the woodwork to contact us about the site, from such a disparate base. People are coming to ask about the site from the public sector and the private sector. They're coming to ask about science and research, and they are coming to ask because they operate vessels. They're coming to ask because they're interested in the harbour and how it gets developed overall and preserving marine space, and it just seems to be hitting a chord with people.

I guess my final comment is, that makes sense to me. There are enormously competitive advantages for this province with a project like this because it's situated in one of our physical strengths, which is a remarkable harbour. Secondly, because of that remarkable harbour and these incredible civilized pieces of development that we've done over time - universities, colleges, and government labs - we have an enormous intellectual capacity in the field of oceans in science and technology.

You put those intellectual assets together with this physical asset, there are very few places in the world that could compete with this. They could if they shower it with money, which they're certainly going to be doing in China. China does a lot of things - they're calling it the "blue economy" - and they have enormous resources that they're channelling into research and ocean technology.

We can't do that, but what they don't have is the history that we have and the knowledge that we have, and the collaboration that's going to create something here that I think is a unique development.

MR. CHAIRMAN: Mr. Duff for closing comments.

MR. DUFF: Thank you. I guess I would start my closing remarks with this: Innovacorp is out of business in the absence of entrepreneurs in Nova Scotia. The oceans technology community, in my experience, is a source of tremendous entrepreneurship. The history of our province - there's so much rich history on how oceans have factored into the growth of this province, led by great entrepreneurs. We see it around us every day and I believe this opens a new opportunity to get in and, as Colin said, a very unique asset mix both in terms of grey matter and in terms of physical assets - both infrastructure and our natural resource - to be able to support ocean technology entrepreneurs and augment what is currently a very dynamic community, albeit working often under the radar.

I think the nuance here that COVE is actually located at Dartmouth Cove means something. The Centre for Ocean Ventures & Entrepreneurship is arising in, I think, the place where it naturally was intended to arise. We look forward to realizing a vision for COVE and for the start-up yard and achieving the targets that we've set forward over the next five years.

MR. CHAIRMAN: Thank you very much. I'd like to thank you guys for your time today. That was a great presentation, I think we learned a lot.

I call a five-minute recess, until 2:35 p.m., and then we'll reconvene for committee business.

[2:29 p.m. The committee recessed.]

[2:37 p.m. The committee reconvened.]

MR. CHAIRMAN: I'd like to call this meeting back to order, just to go over some committee business and changes that have occurred since our last meeting.

I want to make sure that everybody got the correspondence, information requested from the Department of Transportation and Infrastructure Renewal at the September 3rd meeting. You guys all have your information here. Are you guys satisfied with those answers? Is everybody okay with that? Not hearing anything, I guess we're okay with that.

The second thing that comes to the meeting today is the letter that Minister Samson sent out to the Honourable Jamie Baillie and the Honourable Maureen MacDonald, talking about the change of committee structure and the request. So based on that, and looking at the past agenda-setting conversation, I think that whole agenda process goes null and void. We have three topics that we would like to put forward, so if the Progressive Conservatives have two topics that they would put forward and the NDP have one topic that they would like to put forward to create an upcoming agenda, then we would like to do so. We have our three. I'm not sure if you guys have yours or if you want to go off the original lists that you submitted.

MR. LOHR: I don't know if I have my original list right in front of me.

MR. CHAIRMAN: It's right here - here's mine.

MR. LOHR: So you want us to pick two off that list?

MR. CHAIRMAN: We're going to put three forward. They're not necessarily off the same list. If you have two that you want off that list or - why don't we put a motion forward for our three so that you can hear what they are? If that's fair, then we can . . .

MR. BELLIVEAU: Could I interrupt? There's some confusion here about what topics you're suggesting for the next three, and I just need clarification on what we're actually voting on before we actually vote.

MR. CHAIRMAN: Based on the letter, we get three topics. We're going to bring forward our three topics and then the Progressive Conservatives can bring . . .

MR. BELLIVEAU: For clarity, you're choosing one of the three?

MR. CHAIRMAN: No, based on this letter that happened, that agenda-setting process is null and void because we've been asked (Interruption) Okay, apparently the committee has to make that decision, that the past agenda is null and void. So based on what we had before, we had 14 topics on ocean sciences, you had three, and you guys had three.

Based on the conversation from Minister Samson and the Committee on Assembly Matters, they've changed the process, so now we're trying to change that process here today to fit within the new framework. I need a motion to clear the past agenda.

Ms. Peterson-Rafuse.

MS. PETERSON-RAFUSE: I have an agenda, a proposed schedule here, and I just want clarification that this is the same one that everybody is talking about. We did October, which was just now - Waterfront Development; November, the schedule says that it's NSBI; and then December, Dalhousie, Office of Industry - am I correct with what I've got here? This is what you're proposing?

MR. CHAIRMAN: Just for this, it will make sense once the - that second meeting will still occur in November, regardless, with NSBI. There's a few things that need to be tweaked with that one because it's not putting all the witnesses forward who have been requested to come forward.

What I'm asking to do, park that for a moment and clear this agenda, so I need a motion that we all agree because I'm trying to fall within the letter of Michel Samson: we get three topics, you get two, and you get one. In order to do that I need that to be cleared, as an agreement from the whole committee. Then we'll put our three topics forward, which will make sense - I promise you, it will make sense.

MS. PETERSON-RAFUSE: And they'll go on a rotation basis like this?

MR. CHAIRMAN: Yes, and then we'll go on a rotation basis so it will fit better within everything, within the mandate of the Committee on Assembly Matters.

MS. PETERSON-RAFUSE: Okay, thank you.

MR. CHAIRMAN: Okay. Mr. Dunn, do you have anything to add or did you want to put a motion forward to clear that . . .

MR. DUNN: No, I was going to put a motion forward.

MR. LOHR: I think we have a motion from Suzanne - I will second Suzanne's motion.

MR. CHAIRMAN: Okay, perfect - trying to keep up. So the agenda is cleared. (Interruptions) Oh, we need a vote on it.

Would all those in favour of the motion please say Aye. Contrary minded, Nay.

[The motion is carried.]

MR. CHAIRMAN: Okay, now it's cleared.

To be clear, I'm going to put our three topics forward - I'm going to ask Ms. Lohnes-Croft to put our motion forward for the three topics.

MS. LOHNES-CROFT: I move that the following witnesses be approved to appear before the committee; our topics for agenda-setting are as follows: NSBI and Screen Nova Scotia to appear jointly, Jobs Fund, and CFN Consultants (Atlantic) Inc. - with Nova Scotia Business Inc. and Screen Nova Scotia to appear at the November 10th meeting.

MR. CHAIRMAN: I guess I need a seconder on that - thank you, Mr. Wilton.

Would all those in favour of the motion please say Aye. Contrary minded, Nay.

[The motion is carried.]

MR. CHAIRMAN: Thank you very much. Mr. Dunn or Mr. Lohr.

MR. LOHR: Our two topics would be the first two on that list: the Annapolis Valley Chamber of Commerce, barriers to economic development in the Annapolis Valley; and secondly, the Department of Business, rural Internet service. We'd like to have the rural Internet service be the number-one topic.

MR. CHAIRMAN: Is that your motion?

MR. LOHR: That's my motion, yes.

MR. CHAIRMAN: Thank you very much. Do you have a seconder? Thank you.

[Would all those in favour of the motion please say Aye. Contrary minded, Nay.

The motion is carried.]

MR. CHAIRMAN: Okay, all approved - thank you. Mr. Belliveau.

MR. BELLIVEAU: I understand we have one choice. I'm going to suggest the Department of Business, rural Internet coverage.

MR. CHAIRMAN: That has already been put forward.

MR. BELLIVEAU: We'll go with Transportation and Infrastructure Renewal, the Minister's Rail Advisory Committee.

MR. CHAIRMAN: Would all those in favour of the motion please say Aye. Contrary minded, Nay.

[The motion is carried.]

MR. CHAIRMAN: Thank you very much. So with that, and keeping in mind we'll get the calendar set based on the new rotations, I call this meeting - oh yes, sorry, I need to table the annual report. Are there any concerns about the annual report? Is everybody okay if that's tabled? Thank you very much. I just need everybody to sign it.

With that, this meeting is adjourned. Thank you very much.

[The committee adjourned at 2:45 p.m.]