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Mr. Stephen Fuhr

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● (1135)

[*English*]

The Chair (Mr. Stephen Fuhr (Kelowna—Lake Country, Lib.)): Welcome, everybody, to our continuing study of the Royal Canadian Navy and naval readiness as it relates to the defence of North America.

I'd like to welcome Christyn Cianfarani from CADSI, who is here to speak to us today.

Before we get started—and I apologize, as we're a bit late due to votes—Ms. Romanado has something she wants to say.

Mrs. Sherry Romanado (Longueuil—Charles-LeMoyne, Lib.): Thank you, Mr. Chair.

I'd ask that the members of this committee join me in honouring two members of the Canadian Armed Forces who we've lost in the last week.

[*A moment of silence observed*]

Thank you.

The Chair: Thank you for coming, Ms. Cianfarani. You have the floor for your opening remarks.

Ms. Christyn Cianfarani (President, Canadian Association of Defence and Security Industries): Thank you very much for having me here today. It's a very interesting version—and a privileged version—of a hot seat this morning.

[*Translation*]

Thank you for inviting me to speak to you today.

[*English*]

In my opening remarks, I'd like to give you a Canadian defence industry perspective on the recapitalization of the Royal Canadian Navy and Canadian Coast Guard.

Six years ago, the government unveiled the national shipbuilding procurement strategy, which is now called the “national shipbuilding strategy”, or NSS. The core principle of the NSS is that this historically large recapitalization of the Royal Canadian Navy and the Coast Guard will be carried out in Canada. The objectives behind the principle are twofold: first, to bring predictability to federal vessel procurement; and second, to end the boom-and-bust cycles that have characterized Canadian shipbuilding in the past. Together, the result can be a sustainable long-term shipbuilding plan that benefits Canadians and the Canadian marine industry.

CADSI fully supports the principle and objectives of the NSS. One of the strengths of the NSS is that, from day one, it received strong all-party support in Parliament. I say this because it's a common-sense proposition. Spending tens of billions of taxpayers' dollars over two or three decades on recapitalizing the navy and Coast Guard presents a rare and achievable opportunity. The opportunity is to revitalize Canada's shipbuilding industry, increasing high-wage employment throughout the country and bolstering innovation.

Moreover, at a time when the federal government is trying to jump-start the Canadian economy out of its slow-growth rut, the projects that comprise the NSS are poised to have significant short- and medium-run economic impact, effectively functioning not unlike the infrastructure stimulus that the current government is investing in.

According to government estimates, for example, the large vessels portion of the NSS is estimated to contribute, based on contracts to date, nearly $4.4 billion to GDP and to create or maintain up to 5,500 jobs per year between 2012 and 2022. This economic impact stands to grow as new contracts are signed. One estimate suggests that if capital, personnel, operations, in-service support, and maintenance costs over 25 years are added together, the total estimated cost of the large ship construction program is more than $111 billion.

It's worth mentioning that Canada is a G7 country. Every G7 country has a significant domestic naval shipbuilding industry, some of which—or some of whom—will be actively bidding on the design and build of the Canadian surface combatant.

If you hear someone trying to convince you that they can offer an alternative approach to the NSS and that Canada's industrial benefits requirements should be relaxed, then it's very likely too good to be true. This is one of those very few industries that is seen as being truly strategic and vital to the economies, if not the national defences, of the world's leading countries.

That said, there are those who would argue that Canada should be recapitalizing the Royal Canadian Navy by buying offshore and off the shelf. They'd say that Canada has no business in the naval shipbuilding industry because we don't do this well. The claim doesn't hold water, so to speak.

Voices: Oh, oh!

Ms. Christyn Cianfarani: Canada has a long and impressive history in naval shipbuilding. The last two major Canadian naval vessel procurements—the Iroquois class destroyer program of the 1960s and 1970s, and the Halifax class frigate program of the 1980s and early 1990s—were carried out in this country at Canadian shipyards and by the Canadian marine industry. I know that you've recently heard of the success of the recent modernization program for the Halifax class frigate. This was, in part, due to Canada's marine industries.

Then, as now, there were controversies over these programs, particularly over the frigates, chiefly with respect to cost, schedule, and the ability of Canadian industry to deliver. Does it sound familiar? Yet, in the final analysis, Canadian industry delivered an impressive capability with the Halifax class, which has served Canada and the RCN well for a quarter century and has led to significant exports of components and technologies developed right here in Canada.

In fact, Canada has proven to be very capable at military shipbuilding in the past, and we will be again if we have the resolve to stay the course with the NSS and have the right perspective on things. We should also not allow ourselves to be seduced by the off-the-shelf bumper sticker. Our well-established military buying pattern tells us that in Canada there is really no such thing as acquiring complex programs off the shelf.

● (1140)

These so-called off-the-shelf solutions are frequently altered through multiple change orders, often significantly, to meet unique Canadian needs and requirements. We should, therefore, be building the industry in this country to satisfy those unique needs, as our allies do.

The fixation over the last couple of years as the NSS got going has been around cutting steel or, to be more precise, the work on the hulls of these vessels. This is actually the visible part of shipbuilding. It's being carried out on both the east and the west coasts, and it will create jobs and growth. Approximately 17% of the total defence sector employment was located in Atlantic Canada in 2014, even before the work of NSS began. That number stands to grow significantly in the coming years.

While cutting steel is obviously important and valuable work, we also need to consider that the hull typically accounts for only 35% of the cost of a warship. Fifty per cent of the value is in the platform and mission systems, and another roughly 15% is in design and systems integration. These are the jobs that, on average, pay 60% more than the average manufacturing wage, and these are the jobs that employ engineers, technicians, and technologists, which make up 30% of the defence industry's workforce.

According to studies on the Canadian marine industrial base that were carried out by Innovation, Science and Economic Development Canada and Statistics Canada, Canada has significant capability in some of these areas of shipbuilding, such as naval ship-borne mission systems, components, maintenance, repair, overhaul, and even simulation, and our strength in these capabilities is, in part, a legacy of previous naval vessel construction in this country.

Let us not lose sight of the possibilities to drive innovation, high-wage employment, and exports in the less visible yet more valuable part of naval recapitalization. The initial acquisition phase of a contract is a smaller proportion of costs than life-cycle costs that include things like the mid-life upgrades, technology insertions, and long-term supportability. It is in these areas that Canadian industry can achieve the greatest return on investment. If we lose sight of this potential because cutting steel for 15 ships is our only focus, we've missed the opportunity of a generation.

[*Translation*]

For our part, the Canadian Association of Defence and Security Industries, or CADSI, is actively engaged with Innovation, Science and Economic Development Canada, or ISED, on research on the Canadian marine industrial base. This work will improve the government's and industry's understanding of what leading edge marine capability exists in Canada. This helps ensure that capable Canadian companies get a fair shake on the systems, systems integration and other future work.

[*English*]

Finally, I would like to say a few words on budgeting. The recapitalization of the RCN has been estimated to cost approximately $30 billion over 20 years, but it's now conventional wisdom that those initial estimates, conducted in good faith years ago, are in need of upward adjustments. Warship inflation alone, which runs at 9% to 11% in the United States, has increased these numbers substantially. Furthermore, as any business person knows, the real cost of programs this complex becomes clear only when you get close to design and build, which we're only getting to right now in the project. This, by the way, is not at all unique to Canada.

Going forward, the government should be flexible to adjust cost estimates over time, as assumptions alter due to changing variables. Neither industry nor government have much control at all over the price of steel, foreign exchange rates, or any other input cost variables, and certainly not the pace of technological advancement. These costs alone will have changed since the outset of the project.

In conclusion, as a country that has some 58,000 kilometres of mainland coast on three oceans and a significant continental shelf, plus new challenges to its sovereignty in the Arctic, having a first-rate navy and Coast Guard should be bread and butter. Canada should be firmly committed to having a permanent and sustainable domestic naval shipbuilding industry, as do all of our G7 partners.

● (1145)

The NSS, while far from perfect, provides a road map to that end state. We should stick to it. It's a time for us to be bold, not nervous. It's a time to be resolute in the face of the challenges we're going to confront, not afraid of the decisions that we're going to need to make.

[*Translation*]

Once again, thank you for inviting me to appear before your committee today.

[*English*]

The Chair: Thank you for coming.

I noticed in your bio—I didn't know this, although I've met you before—that you were previously a MARS officer at some point in your life. Thank you for your service.

Ms. Christyn Cianfarani: Yes, I was.

The Chair: Just to set the tone for this committee session, we have to save some time for committee business. A bunch of motions have stacked up. There is one that we have to get sorted out for sure, which is to allow for the minister to appear in the next meeting, which we all want.

We have 61 minutes' worth of formal questioning. We can get through that if we're all very disciplined, or else we're going to run out of time and not everyone is going to get a question.

Ms. Gallant, go ahead.

Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC): Instead of having seven and seven in the first round, to accommodate more people I'm wondering whether we could have five minutes.

The Chair: Yes, that's fine. Do you guys want to do that? Five minutes in the first round?

Mr. Randall Garrison (Esquimalt—Saanich—Sooke, NDP): No.

The Chair: No? Okay.

Mrs. Cheryl Gallant: All right. Sorry.

The Chair: We'll stick to the plan. Please be disciplined.

That includes you as well.

A voice: No worries.

Voices: Oh, oh!

The Chair: That said, we have to roll.

The first question will go to you, Ms. Romanado.

Mrs. Sherry Romanado: Thank you very much.

I'd like to thank you again for coming. It's a great pleasure to see you again.

I enjoyed your presentation and its aspects. You said quite eloquently that “cutting steel for 15 ships” is not our only focus. I'd like it if you could talk to us a little about some of the work that you've done in a previous life with respect to simulation and training. We talk a lot about the acquisition of our capital assets, but there is a huge component of training, research, and so on and so forth that goes into some of those key acquisitions.

Could you talk to us a little about the importance of simulation and training for the Canadian Armed Forces when it comes to new acquisitions and so on? That needs to be factored in, I'm assuming, when we're looking at major capital purchases.

Ms. Christyn Cianfarani: That's right. At the end of the day, as I explained in my opening remarks, the total cost or the total life cycle of a ship includes many things other than just building the ship itself. We have the operation and maintenance, the training of the crews, and the long-term supportability. We are expecting all those things to add up to over $111 billion over the course of 20 to 30 years. Also, given that we keep our ships a very long time, there are probably additional activities that would go on there.

With respect to simulation and training, or at least what you would call training crews, crew rotations, and the like, the navy itself most likely—and this is me assuming—will be looking at how they're going to structure their crew loads, how they're going to train and whether it would be a virtual ship ashore, how many ships they need for training, and how many ships will be operational at any given time. I would defer to the RCN on that.

I can certainly tell you from an industry perspective that in this country we have some of the most world-leading training and simulation. I happened to be a part of that world for about 20 years. Not only do we have one company that does this, but we have many, and I imagine they are actively participating right now in the Canadian surface combatant competition in order to put those products and services on the table.

Mrs. Sherry Romanado: I have a follow-up question.

A few years back, you were involved in the “Canada First: Leveraging Defence Procurement Through Key Industrial Capabilities” study. Now, in your capacity on the flip side, representing industry, can you talk to us a about our challenges in terms of our procurement cycle? We know that we've had a lot of issues in terms of the time it takes from the SOR to the RFP, and then to the acquisition and the actual combat readiness of our assets. What would you suggest in terms of improving that cycle so that for forecasting we can have that just in time and are not in a situation where we have a capability gap?

● (1150)

Ms. Christyn Cianfarani: For industry, although it sounds strange to say, the cycle isn't our biggest challenge. It's actually the predictability of that cycle. Generally speaking, industry makes investments in forward-looking research and development activities where it believes it's going to get a return on investment. That's business practice. If you're going to put money in leading-edge technologies, you want to understand when that acquisition is going to happen. That's when you're going to obtain your return on investment. Our biggest challenge is the stability of that funding.

Our second biggest challenge is that, as a nation, we don't do very well at signalling early enough in the cycle what capabilities we want. We do have a defence acquisition guide, which talks a bit about the capabilities that we want to generate for the forces, but having a plan and a strategy around where we would like to focus our priorities as a country will signal to business where to put its money. Once business makes the investment, it will start to understand that the acquisition will happen. Sliding to the right is no doubt a challenge, but understanding where we're going is the bigger challenge from an investment perspective.

Mrs. Sherry Romanado: I'm assuming that CADSI did play a role in the DPR we conducted over the summer and will be making an announcement about in the new year.

In terms of industry's input, I know for a fact.... I personally met with the aeronautics industry in Montreal to get feedback for the DPR in terms of identifying what those capabilities are going to be in the long term. How important is it to you that industry is at that table?

Ms. Christyn Cianfarani: It's exceptionally important. I don't think you can build or design and execute on complex programs like this without industry at the table. It is highly unusual for a country not to have its defence industry at the table during these kinds of discussions.

Mrs. Sherry Romanado: I have another question regarding our shipbuilding in terms of the Arctic. We've heard from our NORAD partners that with climate change and so on, the Arctic passageway is of interest, and we know that our colleagues, we'll call them, in Russia are interested in our northern passage.

An hon. member: [*Inaudible—Editor*]

Mrs. Sherry Romanado: We'll just call them colleagues.

That said, I've asked this question before in terms of our Victoria class submarines. What are your thoughts in terms of our need for nuclear to be able to operate under ice?

Ms. Christyn Cianfarani: As a general principle, and in terms of base knowledge, it is the responsibility of the Department of National Defence to define the capability stack that we need in this country.

As for what I can tell you from an industry perspective, I do think the industry could gear up to provide technologies, components, or a labour force in order to undertake the build of submarines in this country should we so desire to have it refreshed as our capability stack.

Mrs. Sherry Romanado: Would it be something that you think we should be looking at focusing on, given the fact that we do have nuclear capabilities here in Canada, in terms of industrial benefits?

Ms. Christyn Cianfarani: I most certainly think that for any capability stack we want to have in terms of our Armed Forces, we should be looking at how we can involve the industry in support of it.

Mrs. Sherry Romanado: Thank you.

The Chair: Thank you.

Ms. Gallant, you have the floor.

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

In regard to Ms. Romanado's recognition of the passing of two of our military personnel, I'd like to say that there were at least three in the past week, and we would be remiss, given that he had a very young daughter....

My first question is in regard to the CSC RFP clause, which basically sets a gag order on bidders and subcontractors. Do you think this will stifle transparency on the CSC project?

Ms. Christyn Cianfarani: In the initial phases when the RFP was released, we raised a concern over the clause being there. Since it has been clarified for all bidders, our focus has been on ensuring that this clause, or the clarifications on this clause, which allow for industry to showcase itself in the natural course of business.... We've been focused on making sure that industry is aware that the clause has been clarified. To date, in our conversations with our committee, we have not sensed any concern now, or less concern, from industry that they would not be able to showcase their technologies and would be restricted in any way from actively bidding on the procurement.

● (1155)

Mrs. Cheryl Gallant: You mentioned the Emerson aerospace review. Does the national shipbuilding strategy actually implement parts of the Jenkins report?

Ms. Christyn Cianfarani: Yes, it does, in terms of the idea of leveraging. In particular, a tool was created that is called the "value proposition", which is the way in which we will gain the most industrial benefits or industrial participation up front in the bidding process.

That tool, and the concept around that tool—the value proposition tool and the ITBs that go with it—were essentially suggestions made under the Jenkins report. That is the result of the suggestions in play in terms of the tool.

Mrs. Cheryl Gallant: In what way can we improve the military procurement process in Canada?

Ms. Christyn Cianfarani: Wow. Where do you want me to start?

Some hon. members: Oh, oh!

An hon. member: [*Inaudible—Editor*]

Ms. Christyn Cianfarani: Yes, I only have two minutes.

As I've said, what really is of great concern for industry is understanding where we're going and what capabilities we want and having stable funding for the purchase of those capabilities throughout the acquisition phase. That signal is the single biggest important thing for us, so that we can make investments in the technologies that are needed in order to put them in the pipeline so that eventually we can deliver on the projects.

Mrs. Cheryl Gallant: What is your view on the NSPS? Do you think it should be changed in any way?

Ms. Christyn Cianfarani: As we mentioned in our opening statement, we fully support the NSS, or the NSPS. I think the single biggest thing we can do with respect to the NSS is to stay the course. It is going to be a challenge. These are or will be some of the most complex warships in the world. There are bound to be hurdles, risks, and challenges, and the biggest thing that we can do as a country is to have it supported by all parties.

Mrs. Cheryl Gallant: Looking at the Dutch model of modularity, for example, and in reading in ATIP, we know this is something that was discussed back in 2014. Do you believe it's a good idea for the Royal Canadian Navy moving forward? If yes, why? If no, why not?

Ms. Christyn Cianfarani: In terms of modularity, do you mean batch build...? Is that what you're referring to?

Mrs. Cheryl Gallant: No, I mean—

Ms. Christyn Cianfarani: Okay. You mean modules like the hull module being separated out or systems modules....

Mrs. Cheryl Gallant: That's right.

Ms. Christyn Cianfarani: When you build these things, they are naturally modular in terms of the products that go within them. There will be natural modules integrated together in a coherent whole as these things are built. It will also probably come out that we'll build these in batches, because given that it is occurring over such a long period of time, it's logical that you're going to have technology changes as the build cycle goes along.

Mrs. Cheryl Gallant: There's also modularity in terms of purpose of mission. One module can be put in place for a salvage operation, for example, and another module for a rescue operation. Is that anything that is of interest to your members?

Ms. Christyn Cianfarani: Well, in terms of our ability to build in a modularized way, it would be of interest to the members, there's no question about it. In terms of what operational capability we need and how we would create the modules to stack it, I defer that question to National Defence.

Mrs. Cheryl Gallant: Okay.

What more does Canada need to do to promote and develop the shipbuilding and defence industry in Canada?

Ms. Christyn Cianfarani: I think the single biggest thing we can do is to understand that defence is a unique industry. It is strategically used by almost every other country, and certainly by G7 nations, if not the G20.

In this country, we view defence very differently. We view it less as a strategic asset by which to develop the latest generation of technologies and more as something that we—or the industry that we involve—involve from time to time in unique and single acquisitions. I think we need to be significantly more strategic in the way we view the sector, the way we view the acquisition cycle, and the way in which it can be used to stimulate innovation and growth in the economy, but also strategically with our partners and allies.

● (1200)

Mrs. Cheryl Gallant: Do we have the labour force, the skills force, and talent all in place in Canada to follow through with the national shipbuilding strategy, or are we needing people from other countries come in to fill some gaps?

Ms. Christyn Cianfarani: Absolutely. We've had to have people come from other countries to transfer technology and knowledge. It's very logical, given that our industry has effectively eroded over the course of time. The purpose of the national shipbuilding strategy is actually to regenerate an industry that had eroded significantly.

Nevertheless, even if there were a much larger portion of the industry involved in shipbuilding, you would still need to bring in technologies and a transfer knowledge from other countries, based on what you choose in the design.

Mrs. Cheryl Gallant: In terms—

The Chair: That's your time, Ms. Gallant.

Go ahead, Mr. Garrison.

Mr. Randall Garrison: Thank you very much, Mr. Chair.

Thank you, Christyn, for being here. It's good to see you again.

I was particularly glad to see your emphasis on things other than cutting steel, because I'm from Vancouver Island, where we don't actually cut the steel. The shipyard in my riding will be intimately involved in installing systems for Seaspan.

We also have smaller shipyards, such as the Point Hope shipyard, just outside my riding, and the Nanaimo Shipyard, which are hoping to be subcontractors on some of the work on the large ships.

We also have other communities such as Port Alberni, in the mid-island, which has a very large harbour facility. It has an industrial workforce that's seen a lot of layoffs and they're looking for ways to get involved in the shipbuilding industry.

I ask this question of the public servants who were here. From your perspective, for those who don't have the big contracts, are there obstacles to getting involved as subcontractors in the shipbuilding strategy?

Ms. Christyn Cianfarani: I think—

Mr. Randall Garrison: The answer from the public servants was no, but I'd like to know from the people who are actually in the bid.

Ms. Christyn Cianfarani: Getting into the defence business in general is not easy. I think that most small to medium-sized enterprises that have tried a foray into defence will say that it is one of the hardest industries to get into. Irrespective of whether we're talking about shipbuilding or aircraft, you name it, it is a hard industry to get into. As everyone here is aware, we're a heavily regulated industry, with export controls. Security clearances very often need to be put in place. The long lead cycles with return on investment over a very long time frame can, in some cases, put small businesses out of business. It is a risk.

I think those are some of the challenges that people would face in entering the sector in general and, by nature, in getting work on the national shipbuilding strategy. What I can say, though, is that because of the value propositions that were placed on the shipyards to do work in Canada and source work in Canada, the advantages for Canadian companies are much higher and they're much more capable of achieving them.

Mr. Randall Garrison: That's great. Thanks very much.

You talked about what you called the “long lead cycles”. I guess what we're looking at quite often is the question of why it takes so long in Canada to do defence procurement. From the perspective of industry, is that largely a function of government policies? There's nothing about the industry that would make this take so long to do procurement.

Ms. Christyn Cianfarani: In part, we have gone for I think about 20 years in this country without doing a significant massive recapitalization of the Canadian Armed Forces. I think that any nation would be hard-pressed to execute on the massive amounts of items that we have essentially purchased or intend to purchase over such a short period of time.

By nature, your skills in some ways atrophy when you're not using them on a regular basis, so I think it's quite natural that we have these challenges. The key is to make sure that we have lessons learned as we go forward, to understand where we've had hard points and where we've had policy problems that haven't driven the proper outcomes that we want to see, and to change them, just like you would do in any business, for example, when you do process improvement and policy improvement. We're getting a lot of lessons learned, and it will be time soon enough for us to start looking at how we can continue to improve.

● (1205)

Mr. Randall Garrison: That leads me to something you said in your introductory comments and that you came back to again. You said that “Canada has proven to be very capable at military shipbuilding in the past, and we will be again if we have the resolve to stay the course”.

Can you talk a bit more about your concerns about the resolve? I have raised this in the committee. The shipbuilding strategy seemed to be one thing when everybody supported it, and now it seems to be drifting a bit into perhaps lesser capacities for the ships being built and maybe fewer numbers of ships, and we're still calling it the shipbuilding strategy.

Ms. Christyn Cianfarani: As we mentioned in our opening remarks, when you had an idea 10, 15, or 20 years ago, by nature you'd go and do a rough order-of-magnitude cost estimate and get an idea of the volume and how many ships you needed, but the truth of the matter is that these things evolve over the course of time.

In terms of the shipbuilding strategy, I think the industry sees that we are spending a lot of time arguing about the number of ships, the cost of the ships, and what number we said 10 years ago. To be quite honest with everyone in this room, that's noise. We need to get on with the business of building the ships that we need for the navy, however many it is based on their operational requirements, and balance it out and move forward on these programs. The technologies are there. The industry is ready and willing to do it. The navy is waiting on their ships.

The Chair: You have about a minute and 30 seconds, if you want to continue.

Mr. Randall Garrison: One thing you included in your presentation is something that I may have missed, but I don't think we heard it from anybody else. That is a very specific figure for inflation in warship building costs. You cite the U.S. figure of 9% to11%.

Ms. Christyn Cianfarani: Yes.

Mr. Randall Garrison: Would you say that's similar to or higher than Canada's? Do we have any good estimates of what the inflation costs are?

Ms. Christyn Cianfarani: I imagine that Innovation, Science and Economic Development, the Treasury Board, or the finance department could give us an idea of what the differential would be potentially with Canadian and American inflation rates, but suffice it to say, it would probably be quite similar.

Mr. Randall Garrison: Thank you.

The Chair: Thank you very much.

The last seven-minute question goes to you, Mr. Spengemann.

Mr. Sven Spengemann (Mississauga—Lakeshore, Lib.): Thank you, Mr. Chair.

Ms. Cianfarani, thank you very much for being with us, for your expert testimony today, and also for your past service to our nation.

I really wanted to zoom in a little more on the macro-economic picture that you're painting in very compelling terms. I think it's very important for us as parliamentarians, and also for the Canadian public at large, to understand that we need to shift away from the notion of defence spending to the idea of defence investment, and that there are longer-term economic benefits in terms of our overall capacity to contribute on a number of different fronts at home and abroad. I wanted to explore both the domestic economic side and also the potential for export.

Before I do that—you didn't refer to it in your comments, but it's in your written submission—you note a multiplier, if you will, for the national shipbuilding strategy, of $1.3 million. Can you share with the committee in document form, at a future date, the source of that information? I think we would be very interested. We've asked the question on the multipliers a number of times of other witnesses, and you're the first one who has actually brought us some data. How is that particular multiplier composed? Also, how does it vary across other sectors within the defence industry?

Ms. Christyn Cianfarani: The multiplier actually comes out of Innovation, Science and Economic Development's multiplying model, a model on the ITBs and the marine industry in general. I would go back to them for the mechanisms or the makeup of the multiplier. It is actually $1.3 million and, I think, 14.5 jobs, which is another interesting piece to add on to that. It's—

Mr. Sven Spengemann: It's equally important.

Ms. Christyn Cianfarani: Yes. It's equally important.

Mr. Sven Spengemann: If you take a more fine-grained view of the industry and go from steel welding to software development, let's say, both of which are part of a naval vessel's construction, how does the multiplier change?

Ms. Christyn Cianfarani: I can't answer that, actually. I think I would need to go back to Innovation, Science and Economic Development to find out whether they've done a variation on the multiplier based on the skill set, or whether they've done a homogenized average.

Mr. Sven Spengemann: In terms of the jobs that are being created, you described them as, first of all, as well-paid and, also, longer-term jobs. In your view, is it right to characterize these—and it depends on our philosophy of shipbuilding—as permanent jobs? Or are they fixed contracts and then people are left to compete elsewhere for contracts, either on the civilian or military side?

● (1210)

Ms. Christyn Cianfarani: It depends on the type of job.

First of all, if someone is working on hulls or build-type labour jobs, they will at some point run through the build cycle. One would hope, though, that with the NSS strategy, they would be—

Mr. Sven Spengemann: First?

Ms. Christyn Cianfarani: Yes, exactly. The purpose of avoiding this boom and bust is to actually rotate them onto another ship that would come back into dry dock for refitting, right? There would be those types of jobs.

Then there are jobs such as integration jobs and engineering jobs that would most likely go on throughout the entire build cycle until we start to build another generation of ships, because you will get mid-life upgrades and technology insertions. In fact, some of these jobs will end up.... Simply, we don't have enough volume in Canada alone to sustain the industry. These companies will rotate to an export market.

Mr. Sven Spengemann: Okay.

Ms. Christyn Cianfarani: The reason the internal part of the ship is so valuable for us is that it is the easiest piece, or the most world-leading piece that we're able to export.

Mr. Sven Spengemann: That's very helpful for the committee. Thank you.

I wanted to talk about the export potential, but also, before I go there—and this is last question I'll have for you—I want to explore with you the synergy to the civilian marine shipbuilding side. Feel free to comment outside of the confines of marine and to go into other sectors of defence. How tight is the overlap between civilian jobs and civilian expertise and military shipbuilding?

Ms. Christyn Cianfarani: In general, the overlap in the industry is huge. Two-thirds of our CADSI members or our companies actually don't exclusively do military work. They have a military and a civilian side. We can't survive on the domestic market alone, in fact, and that's why for 60% of our industry in general the revenues come from exports. There just isn't a way to survive on the domestic industry.

In terms of what we call the “bleed-over” or the dual-use portion of most of the technologies within the ships, they actually have either a civilian use or an alternate military/civilian use. I'll give you an example. Acoustics is a very good example. Acoustics are used on the ships, obviously, to do underwater warfare, if you will, but you can also use them for mapping and charting. Most recently, I think, they were used to find the lost Franklin ship.

Mr. Sven Spengemann: It's fair to say—and again, we'll be curious to look at the data that you'll give us on the multiplier—that $1.3 million you mentioned may not even include the ancillary benefits that may flow to the civilian side.

Ms. Christyn Cianfarani: No, it may not, but I defer that to ISED.

Mr. Sven Spengemann: Okay. Thank you for that.

My last area of inquiry would be about export potential for the Canadian marine industry generally. You've touched upon it. The way I'd like to come at it is to ask you what, in your mind, governments could or should do better to export the Canadian defence industry abroad, specifically shipbuilding.

In fact, some countries do it very differently. The United Kingdom, for example, attaches serving officers to various sectors of its defence industry with no other objective than that of being ambassadors for the industry overseas, in other countries. What could we do better? What should we explore to make sure that the export potential we have is maximized?

Ms. Christyn Cianfarani: Actually, thank you for that question because, in truth, most recently, you've all seen the behaviour of other countries with the Canadian surface combatant. We have countries bringing ships here to the harbours to show us their technologies and to show us what they can do. As a general rule, we don't go that far as a nation, and we need to start going that far. The expectation is that other nations are openly and aggressively coming to Canada to give us their technologies, and we should be, I would say, aggressively marketing our own technologies outside of our country as well.

The single most important thing, though, that Canada can do is to be the first buyer. One of the things that signals to other nations that you feel that your products and services are first rate and world class is the fact that you buy it in your home nation. It is a great detriment to our companies when we won't buy their products and to try to then turn around and sell them outside, to another nation. It's almost impossible.

Mr. Sven Spengemann: That's very helpful.

I think that's my time, Mr. Chair.

The Chair: Yes, Mr. Spengemann.

We're going to move to five-minute questions.

Mr. Gerretsen, you have the floor.

● (1215)

Mr. Mark Gerretsen (Kingston and the Islands, Lib.): Thank you, Mr. Chair.

I want to pick up on what you were talking about with Mr. Spengemann. It was about the exports. How would you suggest that Canada go down that road? What's the first step, other than saying, yes, it's important? How do you think we should do it?

Ms. Christyn Cianfarani: In the most recent few years, there has been a concerted effort to get embassies, trade commissioners, and defence attachés involved in the support of defence products and services, but we're very non-aggressive. I guess that's the only way to put it. We're very tentative about actually naming companies, naming capabilities, and championing those companies and capabilities around the world. We need to do that more aggressively, as I would call it. That's at the base level, right? We need to be unafraid of having a defence attaché going out and saying, "I used that equipment and it was first rate."

Mr. Mark Gerretsen: Would you put restrictions on what countries, or sovereign nations, for lack of a better expression, that Canada should engage in that kind of activity with?

Ms. Christyn Cianfarani: I wouldn't put restrictions on it.

Mr. Mark Gerretsen: No, I know, but I mean in your opinion.

Ms. Christyn Cianfarani: What you'd try to do is line it up with the Global Affairs export control regime so that you're obviously not trying to sell to foreign nations that Canada doesn't have best interests in. The second—

Mr. Mark Gerretsen: Do you think industry is receptive to that?

Ms. Christyn Cianfarani: I think the industry is very receptive to that.

Mr. Mark Gerretsen: Good.

The last time the industry was involved in major build-outs would have been in the late eighties to late nineties, with the frigates in the Kingston class, I believe.

Ms. Christyn Cianfarani: In terms of the ships?

Mr. Mark Gerretsen: Yes.

Ms. Christyn Cianfarani: From the design point?

Mr. Mark Gerretsen: Yes.

Ms. Christyn Cianfarani: Yes, although throughout the last number of years there have been major mid-life updates on a Halifax class modernization program, right?

Mr. Mark Gerretsen: Yes.

What would you say were the lessons learned from that major shipbuilding experience in that decade? How have those been implemented into the way that the industry operates today?

Ms. Christyn Cianfarani: It's hard for me to talk about that. I have limited expertise in what that decade would have brought in terms of building the ships. I have more expertise in understanding what the recent generation of modernization of those Halifax class ships brought.

Mr. Mark Gerretsen: I'm trying to get a sense of how the industry is learning from its experiences and how that's impacting what they're doing today.

Ms. Christyn Cianfarani: Well, the industry didn't go away. It's been operating and taking into consideration those experiences from the sixties, seventies, eighties, and nineties all the way to today. Also, it doesn't exclusively do only marine sector activities. Many of the things that the industry is doing are tasks on the order of systems integration and sensor integration. There hasn't been a start and a stop to have necessarily a big moment of lessons learned. If you're talking about the shipyards themselves, I think the shipyards have had to have a massive rebirth, a massive redevelopment.

Mr. Mark Gerretsen: Can you explain that?

Ms. Christyn Cianfarani: The Halifax Irving shipyard has gone from very little to what you'd call world class now. It's one of the most well-developed shipyards in the world. They've had to learn from the Brits, the Australians, and the rest of the world how to run a major shipyard. To my understanding, they've imported that transfer of knowledge into the shipyard in order to be able to create the world-class facility they have today.

Seaspan has what we'll call its American brother or sister, and it has brought that expertise into Canada as well to grow the commercial side or the non-combat vessels.

Mr. Mark Gerretsen: Thank you.

I noticed that you went to RMC.

Ms. Christyn Cianfarani: Yes, I did.

Mr. Mark Gerretsen: I'm glad to hear that you lived in the best riding in the country.

An hon. member: Where is it?

Voices: Oh, oh!

The Chair: We'll now move over to you, Mr. Paul-Hus.

[*Translation*]

Mr. Pierre Paul-Hus (Charlesbourg—Haute-Saint-Charles, CPC): Thank you, Mr. Chair.

● (1220)

Ms. Christyn Cianfarani: I'm sorry, but there's a problem with the simultaneous interpretation.

Mr. Pierre Paul-Hus: Thank you, Ms. Cianfarani, for being with us today.

I'm going to talk to you about what I call the infernal acquisitions cycle.

I believe you're having a problem with the simultaneous interpretation.

Ms. Christyn Cianfarani: Could you please repeat the question? I can only hear the French, not the interpretation.

Mr. Pierre Paul-Hus: You're hearing the French, but not the simultaneous interpretation. Is that right?

Ms. Christyn Cianfarani: It's okay; it's fixed.

Mr. Pierre Paul-Hus: Ms. Cianfarani, I would like to talk to you about what I call the infernal cycle of acquisitions and procurement.

This cycle currently has three components. There is the user, so the Canadian Forces or the Coast Guard, the industry and the government, namely, the political sector. Has the national shipbuilding strategy greatly improved this cycle? Do you think there's been an enormous change in the industry? That's my first question.

As for my second question, could you please discuss the procurement cycle for the aerospace industry, specifically as it refers to jets. There currently isn't a strategy like there is for shipbuilding with the user, the industry and the government. Are there currently a lot of concerns within the industry about this?

[*English*]

Ms. Christyn Cianfarani: To answer your first question about whether there has been a change in the national shipbuilding strategy, I don't think so. Philosophically, no. It is in what you'd call the throes of doing the thing.

Inevitably, when you build such complex vessels over such a long period of time, you're going to have challenges that come up. There will be a balancing, let's call it, that has to occur among the interests of the user, the industry, and government. As we said in our remarks, the single biggest thing we can do, despite the challenges, is to stay the course.

With respect to the aerospace industry, I would absolutely agree that we do need a strategy, not unlike either a national shipbuilding strategy or what we would like to say, which is a “defence industrial strategy” that would encompass all those domains from combat vehicles to aeronautics, airframe platforms, and national shipbuilding, in order to better understand what we want as a nation, to have our strategic significance with regard to how we want to use our industry, and then to prioritize how we want to deal with other nations and, as a nation, what we will aggressively to other nations.

[*Translation*]

Mr. Pierre Paul-Hus: I'm currently wondering about the navy.

We are seeing that several projects are currently under way. For instance, there are some plans for offshore patrol ships and new frigates.

Do you think we could say that, when it comes to the industry, the planning that has been done in recent years and the contracts awarded are something positive? Are we on the right track? If not, what should be done quickly to fix this?

[*English*]

Ms. Christyn Cianfarani: I think we are very well placed to be able to execute on the strategy. Certainly from an industrial perspective, the way in which the contracting on the non-combat vessels has occurred has been a bit of a challenge. I think it's common business knowledge to understand that you need a certain volume of build to be able to make the return on investment work in the cycles. That has, to my understanding, been a challenge in Seaspan Shipyards in terms of the way in which the procurements were by nature structured.

In terms of physically actually doing the work as we roll it out, again, as we said in our remarks, I think it will be challenging. We are going to be building some of the most complicated warships in the world. In terms of staying the course, mitigating the risks, and putting in place the conversation that will occur between government, industry, and the user, the most critical thing that we can do at this point in time is to actually be partners.

● (1225)

[*Translation*]

Mr. Pierre Paul-Hus: I'm also trying to understand why we aren't in a position to build ships for other countries. We are never competitive.

What is the Canadian industry's problem with shipbuilding for foreign countries?

[*English*]

Ms. Christyn Cianfarani: In particular, in terms of warships, almost every country has unique requirements in terms of their warships. It's very uncommon to take a warship and sell it to another nation off the shelf. In fact, I don't know if it's ever actually been done. It's just not done. The sensor suite within the warship, the combat systems, and the way in which you even partner and play with your allies are all taken into consideration when you build one of these types of ships. The idea of building a ship to print and exporting it to another nation isn't really what you do.

What's valuable is what's inside that ship. If you want to be the world-leading acoustic creator, that is something that you can export to another nation. That would be the type of thing that you'd look at in terms of shipbuilding exportation.

[*Translation*]

Mr. Pierre Paul-Hus: Okay.

Thank you.

[*English*]

The Chair: Thank you for that.

Mr. Fisher, you have the floor for up to five minutes.

Mr. Darren Fisher (Dartmouth—Cole Harbour, Lib.): Thank you very much, Mr. Chair.

Thank you very much for your expertise and your perspective and for sharing them with us.

I represent Dartmouth—Cole Harbour in the greater Halifax area, so I was interested in Mr. Spengemann's comments about the economic impact and the multiplier. You say that the multiplier is $1.3 million, but when I stretch it out and I start thinking all the way from college courses at Nova Scotia Community College to a haircut, a movie ticket, and a bag of groceries at the Sobeys, it seems to me that the defence spending in those communities allows them to have an insulation when there's a tough time in the economy. It seems to be a much higher.... I'd be interested in more discussion someday down the road on what that multiplier actually is when you break it down to that base of what people are spending in the community.

I was really interested in what you said about the perspective. I have to say that I'm guilty of this. You said that 50% of shipbuilding is in the platform and the technology. I've been to the steel-cutting factory twice and I've been to assembly hall three times, and I fell right into that. I see progress when I see hulls and steel-cutting.

Ms. Christyn Cianfarani: It's impressive.

Mr. Darren Fisher: It is very impressive, but your point of view is the first time that's been shared with me. I thank you for that, because I never saw progress on the *Harry DeWolf* until I really saw the hull starting to come together in that first module.

We've heard from various witnesses about the premature retirement of the Protecteur class and the fact that we have that capability gap after we prematurely retired those. Do you have concerns that we're going to do the same thing? Are we going to have a real capability gap for a period of time and then have to throw something together to fill that gap, like the interim ship that we're going to have in 2017 to solve that problem? Or do you think that maybe this NSS we have now is going to take that future potential...?

Let's think about our submarines. We have three submarines, and it will be 2035 when we're going to start to talk about replacing those. Are we going to have a problem? Are we going to have a capability gap there because of maybe being a little short-sighted in how we do things?

Ms. Christyn Cianfarani: I can't tell you whether they're going to have a capability gap. It has to be National Defence that looks at that. What I can tell you, though, is that NSS was designed on the premise that we're trying to avoid a capability gap. The premise of having an industrial strategy in general is to avoid having capability and technology gaps, because we are what we call in the industry such “lumpy buyers”. Canada is a lumpy buyer.

Mr. Darren Fisher: Got it.

Mr. Spengemann asked the rest of my questions, so I'd be pleased to share my time.

● (1230)

The Chair: You can, or we can move along in terms of time, if you're happy with that.

Mr. Bezan, you have the floor.

Mr. James Bezan (Selkirk—Interlake—Eastman, CPC): Thank you.

Thanks for your expert witness testimony today. Really, it gives us a different perspective from the industry standpoint on things that maybe we haven't considered.

I want to talk about the Canadian surface combatant design program that's on right now. You talked about how we can't be buying off the shelf, yet the whole design concept is to try to get off the shelf. How do you see that fitting in with the needs of the Royal Canadian Navy and how Canadian industry has always adapted to suit what the navy needs?

Ms. Christyn Cianfarani: Right. I guess it depends how you want to attach to the nomenclature. The design is a modified existing design. The subtlety is that this doesn't mean it is off the shelf 100%. We all know that there will be a Canadianization of the platform that goes on. We all would hope that we would make slight changes to the design in order to incorporate leading Canadian technologies. We also know that we're going to modify that design over time as the build goes along, because there will be new technological modernizations that come along.

While we're purchasing an existing design, there will be a significant amount of change orders to that design in order to make it relevant for Canada and also to keep it leading-edge throughout the build cycle. I don't think they're incongruous, by the way. It's very normal to say that you're buying an existing platform, but those of us in the business fundamentally understand that you're going to make modifications for your unique country's requirements.

Mr. James Bezan: How do you see this working out, then? We're definitely buying the basic design from some other shipbuilding company, and it's more international than a specific Canadian design. How does this integrate with Canadian industry, both in the design concept and then into the build?

Ms. Christyn Cianfarani: An interesting thing has been done in this project, in that there is what we call a value proposition that's put in place in the RFP. The principle of that value proposition is the incorporation of “Canadian work-share” into that base design. All the bidders are required to identify up front where they're going to get Canadian content and Canadian involvement. That includes, for example, systems. It includes combat management systems and things like acoustics and sonar and anti-submarine warfare, as well as comms and things like that.

With the point system—it's a point system based on money—the preferred bidder or the winning bidder will have the highest points in their value-proposition component, which means they will have incorporated the maximum amount of Canadian content before we even make the selection. In other words, they're trying to outbid each other to incorporate Canadian content and the Canadianization up front in the design-and-build cycle.

Mr. James Bezan: Is everybody in the industry happy with that approach, especially the Canadian-based enterprises?

Ms. Christyn Cianfarani: This is the highest value proposition we've seen to date, and the most detailed. Coming out of the gate, we're in a very good position to maximize Canadian content. That being said, you only are going to see it at execution, right? What we've asked all parliamentarians to do is keep their eye on this program. When the numbers are between $30 billion and $111 billion, you can't afford to go wrong as the bids become unveiled.

Mr. James Bezan: I'll go back to industry capacity and the discussion on making sure that there aren't going to be any future capability gaps. Let's say that National Defence and the CAF make the decision that we're going to change course midstream, that we're still going ahead with building our surface combatants, which will be some sort of hybrid of frigate-to-destroyer capabilities, but that because of technology advances, and because of the proliferation of cruise missiles and other intercontinental ballistic missiles, maybe we would need more of a destroyer-type approach again. Would we be able to add that into the mix while still doing the build of the surface combatants, as well as finishing off the Harry DeWolf class and the joint supply ships and Coast Guard vessels?

Ms. Christyn Cianfarani: I can't speak for the yards. I cannot speak to the capacity that the yards are able to handle.

I can certainly say that never in 20 years I have seen Canadian industry—or any industry, for that matter—not find a way to staff up when you dangle out contracts and say that you need industry to change course or to increase the build cycle. Canadian industry always, to my knowledge, finds a way to staff that up. Whether we have to import some labour to be able to do it, or import skills and training, or transfer technology, or start generating skills and training or a trained workforce from the universities themselves, never in 20 years in this business have I seen industry not rise to the occasion.

● (1235)

Mr. James Bezan: Thank you.

The Chair: Thank you for the answer.

Mr. Iacono, welcome. You have the floor.

[*Translation*]

Mr. Angelo Iacono (Alfred-Pellan, Lib.): Thank you, Mr. Chair.

Please note that I will share my time with my colleague John McKay.

Welcome, Ms. Cianfarani.

Ms. Christyn Cianfarani: Thank you.

Mr. Angelo Iacono: Thank you for being with us today.

Here's my question.

In addition to the contributions of the Halifax Shipyard and Vancouver Shipyards, which are the two naval shipyards chosen by the federal government to deal with the national shipbuilding strategy for large vessels, what is the contribution of other companies and shipyards within the framework of this strategy?

[*English*]

Ms. Christyn Cianfarani: Apart from the NSS, which ran a competition where two shipyards were selected, the Vancouver Shipyards and the Irving shipyards in Halifax, there are other vessels, tugs, and other assorted ships that will have gone out to open tender and are available for other shipyards to build on for a work share.

[*Translation*]

Mr. Angelo Iacono: Thank you.

[*English*]

Hon. John McKay (Scarborough—Guildwood, Lib.): Thank you.

I want to ask you about a problem that people have approached me on, which is that the value proposition in a lot of these things is getting the exports out the door. That's where your real multiplier gets to be. Some of this has issues about lethality, etc. You have a triangle consisting of DND, International Trade, and Foreign Affairs. The export permit, for lack of a better term, just bounces around among those three. I would be interested in the views of the industry as to how that system could be improved.

Ms. Christyn Cianfarani: The export permits are issued out of Global Affairs Canada in line with the export control regime. We've made a number of suggestions on how to streamline the process. In particular, one of the things that concerns us most is the harmonization among all the various export control regimes. For those of you who may not be aware, there is not just one export control regime. There are multiples, including what we call the "export control regime"; the controlled goods list; the international traffic in arms, if you're looking at the United States, which is our biggest market; and fourthly, the automatic firearms country control list.

One of the single biggest hurdles to industry is the fact that each one of those lists is controlled by a different entity and those lists are often not harmonized, meaning that you have to go through literally four of those doors in order to be able to get your controlled good out the door. That's not saying that we want to have less of them; we would like them to be harmonized so that it's almost like a one-stop shop to get your permits to be able to get your goods to market.

Hon. John McKay: Thanks.

On getting your goods to market and bidding, on the opportunity to bid there's a process, a precondition, so I take your point on harmonization. Do you have any other suggestions so that our companies can bid in a timely fashion?

Ms. Christyn Cianfarani: Part of bidding in a timely fashion is that you will have paved the way to be able to bid in a timely fashion. In other countries, the defence industry for export is a managed market. It's not a free-trading market. If you want to have an entrance point on a major procurement in another country, doing it as an individual company is far less powerful than doing it as a nation.

I think one of the single biggest impediments is that as a nation we don't have a strategy vis-à-vis other nations in terms of what we want to sell them, which then paves the way, by nature, for.... The precursor is that you're going to go in, you understand how the export control regime works, and it gets you out through the door. That's the process, but the reality is that as a country vis-à-vis other nations we're missing the strategy to get ourselves aggressively sold into other countries.

● (1240)

Hon. John McKay: Thank you.

The Chair: Ms. Cianfarani, thank you very much for coming to the committee today.

I'm going to suspend for a couple of minutes to quickly say goodbye. We'll then go in camera to discuss committee business.

[*Proceedings continue in camera*]