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Chair

Mr. Randy Hoback

Standing Committee on International Trade

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• (1530)

[English]

The Chair (Mr. Randy Hoback (Prince Albert, CPC)): Good afternoon, ladies and gentlemen. It's great to be here this Wednesday. Pursuant to Standing Order 108(2) we are studying small and medium-sized enterprises.

We have witnesses from Analytica Advisors Inc., Cravo Equipment Ltd., Ingenia Consulting, and 123 Certification is joining us by video conference.

We're going to start the meeting with the video conference.

Mr. Claude Choquet, president and chief executive officer, you have the floor for eight minutes.

Mr. Claude Choquet (President and Chief Executive Officer, 123 Certification): Good afternoon, ladies and gentlemen, members of the House of Commons.

[Translation]

My name is Claude Choquet and I represent 123 Certification Inc.

[English]

I am the president and founder, welding engineer, and inventor of the welding simulator called ARC+, which is used to train welders.

My company, 123 Certification, is a leader in virtual reality and simulation. We offer virtual platforms for training, coaching, and assessing the manual dexterity of welders. This platform unites ecology and manual dexterity because due to the cost of training, it makes it possible to improve the recognition of employment skills in a field where certification of expertise is mandatory.

[Translation]

I will continue my presentation in French.

I myself invented the manual dexterity training and certification platform for welding, the ARC+ simulator. As the Canadian delegate to International Institute of Welding's Commission XIV for the education and training of welders, I keep abreast of global solutions designed to solve a problem affecting certification in the trade.

This original solution has led to over 25 years of expertise in the field to solve a serious shortage problem that has an impact on the current economic recovery around the world. This one-of-a-kind innovation is a platform for manual dexterity and muscle memory training, with its primary application in the welding trade.

[English]

Welding is no longer a commodity, it is a competitive edge. I am handling now a tool common for welding. It's an electrode holder. This is a tool that welders use to write figures or to use handwriting each day on metal parts. For image purposes, individuals who handle this tool are paid to create weld symbols with very precise handling as if you were writing a letter on paper, using differing font sizes.

[Translation]

The mission of 123 Certification is to simplify the training and certification process for welding against a background in which it is difficult to find a good welder on the market, even though the price for the trade is right. Companies and training schools are interested in this new interactive 3D solution that has real-time exercises for training today's apprentices with tomorrow's tools.

123 Certification is a leader in virtual reality and simulation. We are the worldwide originators of a unique way to train, assess and even certify manual dexterity for employment in a number of trades that use welding.

To better illustrate how a welding simulator is used, here is an example where individuals, such as aeronautic technicians, have to perform maintenance operations with manual or semi-automatic welding. They will be able to practise their tasks before performing them on aircraft components.

Why a simulator? Just like training for airline pilots, it is now possible to use virtual reality to learn basic welding movements. A welding simulator captures a welder's movements, processes them in real time and recreates the manual dexterity exercise in the 3D glasses.

Our value proposition is to reduce the time and cost of training a welder, in a formula well adapted to today's reality, all while using a green approach and increasing the quality of training as the trainee progresses through the program.

Is the approach realistic? Since just 2009, we have sold close to 700 units, including six in Canada, in Quebec, Alberta and Ontario, and in the four corners of the world, in the United States, Australia, Germany, Kazakhstan, Saudi Arabia, India, Mongolia and China.

With the support of the international community and with several Canadian innovations from our company, we have designed, developed and delivered a unique solution for the welding trade.

I will now talk about the issues in our country.

During its most recent investigation into recruiting and training in the metal transformation industry, the provincial sectorial committee highlighted the lack of welders in Quebec. Almost 60% of companies in the metal transformation industry employ welders or welder-assemblers. At the time of the investigation, the 935 companies surveyed anticipated hiring 1,400 welders or welder-assemblers, which represents close to 3,000 hires planned for all of Quebec, if we extrapolate these intentions to the entire industry.

At the same time, we are seeing fewer graduates in the past 10 years. As a result, the 885 graduates will not be enough to meet the demand of Quebec metal manufacturing companies.

• (1535)

In Canada in 2010, the average revenue generated by a production employee in metal manufacturing was \$236,000 a year. We have a shortage of about 2,100 welders, which is 3,000 minus 885. This means that the industry would leave nearly half a billion dollars in revenue on the table every year, in the province of Quebec alone, because of a lack of welders.

Our goal is to increase the supply of welders and optimize the use of existing resources in companies. We are proposing training for entrepreneurs and their welding supervisors, coupled with activities to raise awareness about the welding trade, which will boost the value of on-site employees and potential welders.

Ladies and gentlemen, members of the House of Commons who surely know these same challenges in your own geographical regions in Canada, may I have a few minutes of your time so that I can listen to the issues you have identified regarding the school drop-out rates among young people during your recent interactions with various stakeholders?

We are taking part in a welding championship in 35 cities in France that has been held for seven years. We will also be taking part in another championship in May, to be held in 15 cities in northern Italy. We are seeking funds to establish a championship across Quebec next fall. It will be supported jointly by the Quebec manufacturing community and its network. This same championship could very well be held across Canada if we manage to get the funding.

We are going to call this activity: "Welding for the non-welder," and it will be a "Do I have the knack?" or "Do I have what it takes?" kind of championship. It will be a knowledge and skills transfer activity that would be used to update the expertise of those responsible for welding in the companies. The "best welder" competition would be for welders by trade and aspiring welders who are not registered in welding training. The championship is therefore designed to highlight the welding trade and attract new vocations.

This competition would therefore complement the Quebec "Olympiad" or "trade skills" competition of trades and technologies that is reserved for students enrolled full time in a program approved by the Quebec ministry of education. This fun competition is a fantastic opportunity to provide information about the welding trade and make companies aware of new technologies. In fact, the tests will take place on a simulator, a real virtual welding platform. It is a

true challenge for our welders, and it is also a good way to spot potential candidates.

We are hoping for the following results: to improve the working conditions and expertise of company welders; to increase the quality and the productivity of company welders; to increase registrations for welding training; to reverse the downward trend in technical graduations in welding and the negative spiral of the image of welding as a trade by showing that the trade, often perceived as low-tech, is becoming high-tech.

If you would like more information about what we do, please do not hesitate to visit our website.

Thank you for your attention. I will be happy to answer any questions you may have.

[English]

The Chair: Perfect timing. You did it right in eight minutes.

We'll move on to our next witness, Analytical Advisors, Céline Bak.

The floor is yours for eight minutes.

• (1540)

[Translation]

Ms. Céline Bak (Chief Executive Officer, Analytica Advisors Inc.): Good afternoon, ladies and gentlemen. I am very pleased to be with you today.

Mr. Chair, thank you for the opportunity to appear before the committee.

[English]

I would like to suggest that we imagine when we were children of having a tug-of-war and how we strategized to win the tug-of-war. We all had a place on the rope and we were all thinking about who should be first, second, and third, and we all had a common goal. I'd like us to have this image in mind as we think about the opportunity to create a \$50 billion industry for the Canadian clean technology industry.

The context for this opportunity is, as you all know, the important challenge we face in regard to exports. With consumer debt being high, with governments struggling to balance the books, and with industry sitting on cash, exports, including both merchandise and natural resources, are a core part of the Canadian economic story. As we all know, there is a geopolitical risk associated with oil and gas exports, as they currently sit at 25% of total exports. We have a graph here to familiarize you with the current mix of exports, now half natural resources and half merchandise, and the current account of Canada that continues to struggle to regain balance.

We'd like to make a modest proposal for clean technology, and that would be a diplomatic commerce strategy based on four principles: engagement, development, procurement, and capital markets.

We can all benefit from SMEs' clean technology exports if we pull together—meaning all of DFATD, Environment Canada, Natural Resources Canada, and Finance Canada—all of the Canadian capacity that is relevant for clean technology and SMEs.

I'd like to begin by giving you an indication of five things you should know about the industry.

It's made up of hard-working exporters. More than half of revenues are currently from exports, and 40% of those exports are from non-U.S. markets, indicating a highly globalized industry. It's also one of the fastest growing industries in Canada, with revenues growing by 9% to \$11.3 billion in 2012.

It's near to us all, with no single company too big to fail and over 800 companies across the country.

In addition to the jobs and the exports that these companies produce, they also produce fuels that keep people working in Canadian forests, chemicals that keep cancer-causing chemicals far from our families, electricity grids that keep hospitals up and running no matter what, energy so that the buildings we work in can produce rather than consume energy, water where we need it without wasting money, and transportation that costs less than what we pay for today; that and much more.

These companies are driving great jobs, including high-paying full-time jobs in astounding numbers, which grew by 6% to 41,000 people directly employed in over 800 companies. These firms are mostly SMEs and they are deeply innovative. In fact, 75% of the R and D investment in the industry, for a total of \$3.5 billion over the last five years, was made by SMEs. That investment is second only to the aerospace industry in Canada in terms of R and D intensity.

I'll quickly compare and contrast with some industries that we may be more familiar with, including the Canadian aerospace industry, with 73,000 people working in it within 700 firms, with \$1.3 billion in R and D, and 80% of revenues from exports. The automotive industry has 117,000 people working within 450 firms and 75% of revenues from exports.

Our vision for the Canadian clean technology industry by 2022 is an industry made up of a 100,000 direct jobs within the firms, 700 or so in total, with \$50 billion in revenue, \$2.2 billion in R and D, and 80% of revenues from exports. We think that there are some very interesting parallels between these industries.

What does a diplomatic commerce strategy mean? It means engagement, development, procurement, and capital markets. We need to work together across all departments and all letters of DFATD.

The first is an engagement strategy, because clean technology is a strategic conversation when we talk about trade. When we engage in bilateral discussions with China, India, Saudi Arabia, the United Arab Emirates, and with all of our strategic partners, is it Canada's turn to be engaged with the commerce that might occur in clean technologies? One vehicle for that discussion is regulation.

• (1545)

In Canada, we have one of the broadest and deepest arrays of regulatory frameworks in the world, and many emerging markets are

building regulations. Can we help them with that as a first step to commerce?

Second, we need a strategy for international development and climate change, which has to be both multilateral and bilateral. International development and climate finance have been the foundations for important industries, both in the G-8 and in the G-20. Multilateral finance must deliver climate mitigation. We absolutely must ensure that, but it has also served to build industrial capacity, and this will continue in the future. For years we've been invited to second technical experts to the World Bank. Will we ever accept these invitations?

In regard to procurement, I would like to refer to four examples: pull credit facilities within EDC, industrial regional benefits within our aerospace contractors in Canada, SME procurement within the federal supplier system in the U.S., and SME procurement via the social economy within the European Union. It is important to note that early deployments in innovation-based industries are the springboard for exports for all innovation-based firms. How are the U.S. and the EU building SME content into infrastructure investments? How should we consider that? How is EDC structuring its approach to engage its pull credit facility clients to pull-through opportunities for SME exporters in clean technology? How are our military contractors in Canada addressing their IRB obligations in regard to an industry such as this one?

The last element of the strategy is for capital markets. Clean technology demands capital for turnkey assets. Can we make SME exports the equivalent of housing starts in this country? Should we deliver regular reporting on exports by size of firm? What are the best practices? Should we be doing quarterly reporting on exports by size of firm? Today, exports by size of firm are invisible to economists, and the same is true for environmental goods, which is another, entirely different opportunity in terms of clean technology and exports.

Let's keep in mind that it is the signals from economists within banks and pension funds that activate new capital markets. With that, we have the opportunity to build jobs, exports, and a stronger economy within a very healthy environment, building on a very capable industry that we have in place today.

I look forward to answering any of your questions.

The Chair: Again, that's perfect timing, with 15 seconds left. So good job.

We are moving on to Cravo Equipment Ltd. and Anne Jackowetz.

Ms. Anne Jackowetz (Vice President, Finance, Cravo Equipment Ltd.): Mr. Chair and members, it wasn't until I started to piece together Cravo's exporting history that I understood all of the players who were part of the success with our expansion endeavour. It's a good story and I'm very pleased to have the opportunity today to share it with you.

So how does a small Canadian company go from exporting 2% outside of the U.S. in 2008 to 62% six years later?

First, I will give you some background. Cravo is a family-owned business that was started over 30 years ago. We engineer, manufacture, and sell retractable roof structures from our facility located in Brantford, Ontario. We have patents on processes and products and ship our structures in pieces that get assembled and installed on site. Our retractable roofs help growers to optimize growing conditions while protecting crops in minutes from extreme heat, cold, wind, hail, snow, and insects.

Initially our structures were used primarily in the horticultural market of ornamental plants and shrubs and the focus was the U.S. market. During those years we gathered research from our experiences with various crop responses to our houses as well as the return on investments.

Let me take you back to 2008. Cravo was working on getting a foothold in the U.S. amusement market and landed a \$7 million water park project in Kansas City. We had worked with this customer before on projects in Texas but not one of this magnitude. The rug was pulled from under us as the financing for the project dried up due to the financial crisis in the U.S. at the time. Fortunately, we had EDC's single buyer insurance coverage and with EDC's assistance we were able to collect from the customer the amount owing to that point in the project. EDC also provides our currency exchange trader with a foreign exchange guarantee on our behalf, eliminating the need to margin.

The year 2009 proved to be pivotal for Cravo. Up until that point we were so highly dependent on the U.S. that 92% of our sales were derived from that marketplace. The 2008 financial crisis was a double whammy because not only did housing starts in the U.S. plummet, but the amusement market sector also came to a grinding halt. It became clear that we needed to diversify geographically and market sector-wise.

We had been researching and collecting data on growing food under our retractable roof. We had built a demonstration greenhouse in Mexico showing great results in trials of peppers and tomatoes, and attracting attention from local growers, but at that point no one was willing to take the risk of trying a different type of growing system.

However, we had a breakthrough in 2010. A large commercial grower purchased a 108-acre project financed by Northstar and backed by EDC over tomatoes in Mexico. Finally we had the break we were waiting for. It was clear now that our market expansion strategy would be to take Cravo retractable roof structures to warm and hot climates where fruits and vegetables were grown.

To reach our target market, we needed to start participating in international fruit and vegetable shows. So in February 2010, with the assistance of the Ontario Chamber of Commerce's export market access program, we attended our first international trade fair for plants in Germany. It proved to be a great source of international qualified leads and an indication of the strong interest from the global marketplace. Due to the change in market focus, projects we were now quoting changed from areas under greenhouses to fields.

We needed to add capacity to our fabrication department and ensure unified quality when we were shipping products thousands of miles.

Therefore we took advantage of the FedDev SMART program grant and upgraded our drilling capacities for our steel, and in 2011 we went back to Germany to participate in two international trade fairs. Once again, export market access helped to defray 50% of the cost for these two events, including the translation of marketing material into other languages. We definitely were building awareness and sales from the contacts made at these shows. By the end of 2011 we had shipped projects into Switzerland, Germany, Poland, and Turkey.

● (1550)

During our information-gathering from the new contacts that we were connecting with, we learned that there was a demand for a variation of our existing structure product offering. The demand was for a structure that could be built over varying terrain and protect against rain, but still be cost effective. Using scientific research and experimental development—SR and ED—funds, we designed a product we call the X Frame and added it to our product offering.

Robin MacNab of the trade commissioner's office met with us to hear our story. At that time, he suggested a strategy for our efforts in the Middle East. He provided us with trade commissioner contacts in those markets where we were trying to gain a foothold.

We also met with a business advisory member from the Ontario government. He reinforced the importance of keeping in touch with potential customers via a newsletter, so in September of 2012 we launched our monthly newsletter, with subsequent Turkish and Spanish versions. Today we have a total of over 4,000 subscribers to the three versions.

In 2012 we continued our investment in production efficiency. Working with BDC, we obtained a flexible equipment loan to purchase equipment for our sewing and fabrication departments.

Our first large-scale X Frame project was sold into Mexico late in 2012 for growing tomatoes. If this trial project continues to produce the way it has, this customer is planning to replace their existing conventional greenhouses with Cravo structures.

It was quite an honour to be recognized by our peers for our exporting efforts when we received a gold Ontario business achievement award for market expansion from the Ontario Chamber of Commerce in October 2012.

When the SMART program resurfaced in 2013, we applied for and received financial support toward the purchase of a new custom sewing system to improve and maintain consistent quality of our roof coverings. Again BDC was there for us to provide the remaining financing.

At the end of 2014, we had five projects shipped to South Africa, eight to Australia, and seven into the Mexican market. In addition, over the past five years we have shipped projects to Nigeria, the U. K., Chile, Mongolia, the Philippines, and Brazil. Cravo's president was asked to speak about our production system at the global forum for innovations in agriculture in Abu Dhabi.

Given the market acceptance of both Cravo and our retractable roofs, the changing weather patterns, and the increased need for food in the world, we foresee very positive growth for our products in the future.

Thank you.

● (1555)

The Chair: Thank you very much.

We'll move on to our final witness, Ramona Materi, from Ingenia Consulting.

You have the floor for eight minutes, please.

Ms. Ramona Materi (Principal, Ingenia Consulting): Thank you very much.

I'd like to thank the committee for inviting me, and the chair as well. It's a very great honour. I'd also like to thank the clerk and her team for all their assistance in enabling me to come.

As the chair mentioned, my name is Ramona Materi. I am the president of Ingenia Consulting.

What I want to do in the eight minutes available to me is cover three points. First of all I'll talk a little bit about our firm and the experience we've had in accessing international markets. Second, I will take a little bit of time to look at some of the programs. I did provide some notes for the presentation; I'm just going to touch on a couple of them. Finally, probably in the last minute or so, I just happen to have been at two very interesting presentations this past week where policy issues came up related to international trade, and I'd just like to share a couple of the points from some of these well-known presenters.

On my first point with regard to Ingenia, we're based in Vancouver, B.C. We're a small services firm. We have six professionals and a support person. The area we work in is fairly esoteric in the sense that it's labour market information, it's workforce development. You wonder where people sell those types of services. For the past four years we've done the vast majority of our work in the north of British Columbia, and those members from British Columbia will know that there are enormous multi-billion dollar investments being made in the north of British Columbia.

I'm currently writing a book to be called "British Columbia's New North: How to Build Your Business, Respect Communities—and Prosper". An advantage of doing that is that I've learned a lot about what local governments are doing to try to support their businesses to take advantage of those opportunities. I think some of the initiatives they have could potentially be turned into a Canadian endeavour looking to support SMEs that are trying to export.

In terms of our company experience in international trade, I read the testimony from previous witnesses who've made points that sometimes people go into markets and then they pull out because

they realize they don't have the capacity. I think we are an example of that.

Since 1998 I've participated in trade missions to Malaysia and Singapore; made three visits to the Asian Development Bank in Manila, twice on behalf of my company and another time on behalf of an environmental services company; I did a two-week mission in Vietnam with the British Columbia Institute of Technology; I did a trade mission to Germany and another trade mission to the U.S. Out of all of that, over the period of 16 years or so, we actually had one small contract in Vietnam where we did work.

I don't regard those missions as a failure in any way. I think they were very helpful for us to go to see, in terms of accessing, what the market could be and if those services would be available. I urge your continued support for these types of missions for companies.

In terms of just moving to my second point with regard to what some governments are doing in the north of B.C., again, I read through the previous testimony. I didn't read anyone talking about one of the programs they have where they are preparing businesses, because to build those projects you're going to have large, multinational construction firms. The Northern Development Initiative Trust, as an example, provides 50% of the cost of consulting for the companies to get ready. It's not to get ready to export, because I know there are programs that will let companies do market research and so forth, but it's actually to prepare them to be competitive. I haven't seen examples of that: where perhaps Canadian-exporting SMEs could be better prepared, get the ISO qualifications or other things they need to do before they even consider moving into an international market. That was the program there.

As you saw in the presentations I made, I think one of the things the committee could do is to consider the services. Services are a small but growing part of our exports and are very high-end jobs. I met with the trade commissioner in Vancouver. They're saying that we have architects coming in. They can sell abroad—the clean tech sector—but also the environmental services sector, not only the technologies. I think that's an important growth industry that we would want to consider.

You'll see that some of my comments are about reaching out to SMEs that don't export.

● (1600)

You've been hearing from a lot of experienced exporters telling you how programs have helped. If you're going to reach your goal of doubling the 10,000 number of exporters, to me you have to spend time thinking about what kinds of policies, or even funding at least, will go to outreach, and beyond preaching to the choir. That's in some of the suggestions or recommendations I made: thinking how you do that sort of outreach to qualified firms in the export sector. I've already talked about the services.

And then, as I say, in my final point on the benchmarking, are we as a country looking at our competitor countries in key markets and asking what they're doing to support their exporters? Can we learn anything from them? Are we Canadians on the ground getting outgunned by them because of what the Aussies are doing in Vietnam or China or other things? That was another point.

To wrap up, my third point I thought was quite interesting. I attended a presentation on Monday by David Dodge, who was formerly with the Bank of Canada. He was very strongly supportive of the notion of these international trade agreements that we're signing, in the sense that he believes it increases the competitiveness of the Canadian economy in general. You've heard from previous witnesses who say that the good exporters are the companies that innovate, the companies that do new things. If they're innovative here, they're probably innovative globally. Any sort of support for that innovation I think will really help us, as does support for trade agreements.

The other presentation—and I'll close with that—was given by McKinsey & Company. It focused very much on British Columbia, but again, some of the points that were made I think could apply to the Canadian context. Basically, in a 15- to 20-year timeframe, they see the rise of some five trends: the rise of emerging markets, the power of disruptive technologies, the aging of the global population, the changing nature of capitalism, and the return of geopolitics, which I think people are well aware of.

You have your own forecasters and I appreciate that, but one of the points I thought was quite interesting—and he repeated it several times, and I think it would be helpful at the SME level—was that rather than target a country, target cities in some of these very large countries. Perhaps in China and India they might be second-tier cities. Look at them in terms of policies because some of these second-tier cities may have 20 million people and could be very attractive markets.

The other point that could help was for political leaders to work with business leaders to expand these markets.

Thank you very much.

The Chair: Great. Thank you very much.

We'll move on to Ms. Liu.

You have the floor for seven minutes.

[Translation]

Ms. Laurin Liu (Rivière-des-Mille-Îles, NDP): Thank you, Mr. Chair.

As a member of Parliament, I feel really privileged to be able to hear these success stories.

[English]

The Chair: You have translation devices if you require them.

[Translation]

Ms. Laurin Liu: Thank you for that presentation, Ms. Jackowetz.
[English]

I'll give you a bit time to put on your translation device.

The Chair: You have the ability to change it to English or French on the display.

Channel one would be English.

[Translation]

Ms. Laurin Liu: As I mentioned, I feel really privileged to hear of these successes, particularly those of Ms. Jackowetz and Mr. Choquet, from Montreal. Thank you for telling us about these personal experiences. Having said that, I would like to start with Ms. Bak.

In connection with a wider debate at this committee, we have frequently heard that Canada is really not a player in Asian markets. So more has to be done in Asia, especially in China. You mentioned China, India and other countries.

Do you feel that Canada should develop an export strategy for Asia? What would it look like?

• (1605)

Ms. Céline Bak: Canada actually has a strategy for Asia in the area of clean technology; it is done through the trade commissioner service. For one of the letters of DFATD, we have a strategy for China and we have commissioners around the world. In every region of China, our consular offices are working to find business opportunities for companies in the clean technology sector.

But I would say that we do not have a diplomatic strategy for the sector. There the other letters of DFATD come into play. The other partners are also missing from the table. We could mention Environment Canada, which works bilaterally with its counterparts in China in settling regulatory matters, for example.

The establishment of the Asian Infrastructure Investment Bank also provides us with the opportunity to meet that challenge and develop a strategy for the region.

Ms. Laurin Liu: Thank you.

You also mentioned the need to adopt a strategy for international development and climate change.

If the federal government were to implement regulations designed to reduce greenhouse gases, would it be of use to your sector?

Ms. Céline Bak: Strategies to reduce greenhouse gases can have a very positive impact on the sector. Cap and trade systems allow clean technology companies to decrease greenhouse gases and, by doing so, to sell credits on the market. They clearly work very well. The one in the European Union does not.

We have the opportunity to use those systems for the benefit of our sector. But it must be pointed out that China has used all the funding for climate change in order to put its solar panel system into place. You are probably well aware of those issues.

Ms. Laurin Liu: Last week, there was a lot of talk on the news about the fact that Ontario has taken steps to join a greenhouse gas emissions trading market.

In your view, is it important for the federal government to implement measures along those lines, even though the provinces are already doing so, in order to reduce greenhouse gases? Do you feel it is important for Ottawa to have a framework, a strategy, along those lines?

Ms. Céline Bak: Perhaps you are aware of the recommendations of Canada's EcoFiscal Commission. A few weeks ago, it issued a report that analyzed the impact of provincial programs in the context of a strategic federal framework.

Most of the advantages and the progress would be at provincial level. There could certainly be a coordination role at federal level, but my view is that we also need a diplomatic approach. A number of discussions are going on in the United States, for example, and we are not part of them because we have no federal strategy. The United States recently announced a new climate change partnership with Mexico. Canada was not at that table, which, in my view, was a serious failure.

Whether it is with the United States or with other major international trading partners, I believe that we should have a strategy, not only for international trade but also for our international relations.

Ms. Laurin Liu: Thank you very much.

Basically, you said that we should start quantifying exports and gathering data about the size of the companies. Is that a recommendation from you to the committee?

Ms. Céline Bak: Yes, and I know that it is not at all easy to do.
[English]

To publish exports by size of firm, not on a survey basis but on a quarterly basis, is a big deal. Frankly we count housing starts as though they are a huge deal and they're a key indicator of the consumer market. If we think exports are such a big deal and SME exports are 55% or 60% of exports, why wouldn't we have the same granularity and the same periodicity for the information that makes markets? Housing starts make markets. They change. Trades occur in public companies because of that information. Economists follow that information very closely. We need to think of similar types of market-making information for exports by size of firm.

• (1610)

[Translation]

Ms. Laurin Liu: I would like to ask one last question.
[English]

I have a lot of questions for Ms. Materi.

You also spoke about the need to export services and a strategy toward exporting those to Asia, not only natural resources. What would be your recommendations to committee from that aspect?

Ms. Ramona Materi: Well, one of the—

The Chair: You'll have to be very quick.

Ms. Ramona Materi: In services, look at the IFIs, international finance, the Asian Development Bank, and see what they are doing. They buy a lot of services and we're very competitive there.

The Chair: Thank you.

Mr. Gill, you have seven minutes.

Mr. Parm Gill (Brampton—Springdale, CPC): Thank you, Mr. Chair. I also want to take this opportunity to thank our witnesses who are appearing before the committee and helping us with this study.

I'm going to start with Ms. Materi, and other witnesses may feel free to provide their input as well.

Ms. Materi, you mentioned in your remarks that we should maybe look at other countries for what is and is not working and what we can learn from that. I wonder if you have any experience, or if you have any information or knowledge you'd like to share with the committee in terms of policies. What is it that some competitors are doing that's really working for their SMEs that we could possibly learn from and maybe help implement to support our SMEs?

Ms. Ramona Materi: I'm not completely familiar with those countries. I know from my experience in Vietnam that.... Coming back to having a strategy, as far as I know, Australia has a very robust strategy on exporting its educational services. When I saw them in Vietnam they were very active there.

Another strategy I am aware of, which might be controversial and about which others may have more knowledge than me.... As I say, this might be a bit controversial, but I understand that in Australia and the U.K., for example—it's subsidized, but there is a charge for services—they use their equivalent of trade commissioners. That may be controversial.

My own view is that if you're going to export markets, if you're serious about it, you'll put up some funding; if your company doesn't have that funding, are you in a position to make those exports? The reason I made the suggestion is because I don't know that much about the others. I'm concerned, as I say, about whether the trade commissioners know what our competitors are doing, or not. I don't know the answer.

Ms. Anne Jackowetz: I would like to add to that. We've got our first project in India in 2015, but one of the things we have found in getting that established is that we were competing there with Israel and the Netherlands, whose federal governments are providing subsidies to them to go in and set up demonstration houses to let the people see, in their own climate, using our facilities, how to grow. That has been huge. I think that's something that could be a good proposal for the Canadian government to get involved in, allowing SMEs to do their demonstrations in these various countries and give them support to show the products there, doing it not in our country but in their country.

Mr. Parm Gill: Wonderful.

Does anybody else want to put in their 2 cents?

Thank you, and I—

[Translation]

Mr. Claude Choquet: If you wish, I could weigh in on that.

In terms of innovation, I think that we are heading in the right direction. We must continue to support tertiary services where we have very highly developed expertise in technological development. The development should perhaps be global. We have to see how other countries are reacting to our innovations. The current process of government support for research and development must not be stopped, whether it is experimental or based on new technologies.

• (1615)

[English]

Mr. Parm Gill: Please go ahead.

Ms. Céline Bak: If I might add, we do have examples of transformation occurring within the industry with regard to the move from R and D to products to services and it might be helpful to bring up that example. I bring up the example of Canadian Solar which is in the audience today. That company started in part with help from the CANMET labs within Natural Resources Canada with a leading edge technology. It then became a major manufacturer of solar panels that were used by other project developers.

It is now becoming a worldwide service provider for the development of major projects and the ownership and the operation of those projects with all the financing that goes with it. You have the whole evolution and they will now be a vector through which energy storage companies will work for microgrids. These microgrids are going to part of what I believe we could call “clean technology 2.0”, the next wave of clean technology.

Mr. Parm Gill: Thank you.

My next question is related to some of the government agencies. I'm wondering if you can share with the committee your experience in dealing with the trade commissioner service, EDC, and BDC and how helpful they were to your organization in helping you to export, guiding you in the right direction, and having the ability to reach out to them. I think, Ms. Jackowetz, you mentioned that you had some dealings with them.

Ms. Anne Jackowetz: Yes. I think overall they've been very positive experiences. EDC and BDC are very good in their strategy to provide certain products to SMEs, but I think they could do a better job in promoting each other. I think sometimes they work in their own space with their own focus, and if we come with a problem that maybe they can't help us with but the other one could, I think if they worked together more, that would be beneficial.

The Chair: Mr. Gill, your time is up, so I'm going to Ms. Freeland.

Ms. Chrystia Freeland (Toronto Centre, Lib.): Thank you very much.

Thank you very much to our witnesses, including our witness who is joining us long distance. It has been really valuable for the committee to hear directly from people running businesses.

Ms. Bak, I was really interested in the comment in your presentation about Canada being invited for years to second technical experts to the World Bank. Can you explain a little more what that invitation has been and why you think it is so important that we do it but haven't been doing it so far?

Ms. Céline Bak: It's a very interesting question. All of the international financial institutions have shared centres of excellence,

which are used by all the countries that participate in lending. As you know Canada is a major shareholder in all the international financial institutions. A lot of the countries will come to those shared services of technical experts and say they have this problem, how can they fix it?

Other countries have seconded their technical experts to those shared services, people who understand what they have to offer. There are many ways of skinning a cat, of solving any problem. If you get expertise from someone from Spain about what they have to offer, or someone from Germany or Japan or Australia or South Korea for that matter, sometimes you end up with something from them. I know that we have been invited to second people to these organizations and we haven't taken the opportunity for reasons that I do not understand. It's a very low cost strategy. It probably would fall under Natural Resources Canada's bailiwick and could possibly be done in conjunction with industry.

• (1620)

Ms. Chrystia Freeland: Thank you very much for that. I know our analysts were listening. I think that would be a good specific point to raise.

I was also really interested in your reference to the fact that a lack of a clear national environmental strategy means that Canada has been losing out on specific agreements, like the U.S.-Mexico deal. Again, I wonder if you could elaborate on that a little. Where, in your view, should Canada have been and what have we lost?

Ms. Céline Bak: It's unusual for the U.S. to announce a diplomatic endeavour with Mexico without Canada being there. I note that. I think it has to do with climate change. You probably have noticed that climate change is a matter that is addressed by Secretary of State Kerry, but Secretary of State Kerry always talks about trade right after he talks about climate change. It is literally the next paragraph in the article in *The Wall Street Journal*, or *The Financial Times*, for that matter. I wonder if we might not take the benefit of putting those two items together. We can have a different conversation with some of our trading partners than that which we may be having today.

Ms. Chrystia Freeland: Do I have time for one more question, Mr. Chair?

The Chair: You have about two minutes left.

Ms. Chrystia Freeland: Okay, great.

Ms. Materi, I was really interested in your reference a moment ago to the Asian infrastructure bank. As you know, Canada is not a member. Should we be?

Ms. Ramona Materi: Because I'm not an expert in the bank, I would only be able to offer my personal view, in that there are well-known human rights issues in China. There are practical issues: if everybody else is joining the club, should we? Perhaps they will do a second round of intaking members. I don't have the expertise to really say. As I say, I do think, though, there are the existing IFIs. On the services side, every opportunity that we can get Canadians in there—as in this example of getting that technical expertise—and leverage our membership to assist all SMEs, but particularly service SMEs, I think would be helpful.

Ms. Chrystia Freeland: Okay, thank you very much.

I just have a final question for our three witnesses who are here.

We heard some really interesting testimony from an entrepreneur from British Columbia. As a woman starting her own company, she said she was surprised to discover she had greater problems getting access to capital than she would have done had she been a man.

To our three women witnesses, have any of you experienced that? Do you have any ideas on what we can do to help?

Ms. Jackowetz, you look—

The Chair: Unfortunately it's going to have to be a short answer. You're running out of time, but I'll let her answer.

Ms. Anne Jackowetz: No, I haven't come across any issues myself. I'm not the president of the company, so maybe that has something to do with it. We have a male president.

The Chair: Okay, I think we're going to have to move on here.

Mr. Cannan, you have seven minutes.

Hon. Ron Cannan (Kelowna—Lake Country, CPC): Thank you, Mr. Chair.

Ladies and gentlemen, thank you very much for being here. I appreciate your sharing your stories and insight. The school of hard knocks is the tuition that we need to learn from. You have aptly proposed some suggestions, and we want to incorporate those as we move forward to help other Canadian businesses to succeed such as you have.

Ms. Bak, I had the pleasure of meeting you in December and learning from you about the diplomatic commerce strategy. In your opening comments you talked about the government struggling to balance the budget. The good news is that the budget is balanced. One of the aspects we're working on is a diplomatic approach for a North American approach with the U.S., Mexico, and Canada. We'll be working with additional information coming before us soon because of the Paris talks in December. So we're looking forward to working right, and we do have the responsibility to work with our ten provincial and three territorial provinces in developing that.

In saying so, maybe you could share a little bit from some of the success stories you've learned about and shared with me, for example, solar and the one Canadian company specifically in Honduras, and how that's going.

Ms. Céline Bak: Yes, I would be very pleased to do that. It will give us an opportunity to bring in another institution that's less well known, the Canadian Commercial Corporation, which is an interesting entity.

Canada is one of only eight countries that has the facility to do sovereign-to-sovereign procurement. The Canadian Commercial Corporation, as you may have heard, signed a \$15-billion agreement with the Government of Saudi Arabia for a major contract for light armoured vehicles and has traditionally been really focused on the world of military procurement. It is to be determined if it will continue and if it will actually take up the opportunity, but I believe the Canadian Commercial Corporation could play a role in the development of markets for companies in the clean technology industry.

In regard to Honduras, this is a very interesting example. Honduras is a country of priority for Canada's development strategy and is a country that is agriculturally based and has a lot of exports, such as melons. Melons play a huge part in building up the social infrastructure of Honduras. In order for Honduras to get the best price for those melons, the melons need to be refrigerated, and in order to do that, they need electricity. So in this instance, electricity is a core part of development.

Canadian Solar has been engaged with the Honduran government in discussions about the possibility of deploying what you can call "utility-scale solar" literally, instead of building large coal plants. You may or may not be aware of this, but the cost of solar is declining at such a rate that it will actually make a difference in terms of the amount of coal-powered energy that is deployed in the future.

It's a terrific story including international development and including our Canadian manufacturing and supply chain, bringing with it services in regard to financing, and actually training people within Honduras so that they can then work in other countries and develop the solar industry within the region.

• (1625)

Hon. Ron Cannan: Thanks for sharing that.

The other nugget I found was in Minister Paradis' portfolio under International Development, and you shared with us that there's an opportunity for Canadian companies. Canadians by nature are a little more humble and are not out there waving the flag as high as we should be and as proudly as we should be.

Can you share a bit about the opportunities in working with our foreign aid and Canadian companies and how we can market our clean tech through our global markets action plan initiatives?

Ms. Céline Bak: I think this is an example that applies to engineering as well, insofar as Canadian companies are not necessarily part of the set of solutions that our development colleagues within DFATD—with all its letters—look to. It's a case of our being aware of our own capacity and actually enabling International Development or the former CIDA to be able to contract with private companies in order to do bilateral initiatives.

At the moment, that contracting vehicle is mostly limited to NGOs. NGOs play an important role, but there is evidence to suggest that private companies provide greater impact for the money than do NGOs. That's something to consider.

Hon. Ron Cannan: Thanks.

This is for Claude, Anne, and Ramona. Anne and Ramona were here before the meeting and we talked a bit.

Are you aware of the Go Global workshops that Minister Fast, our Minister of International Trade, and our trade commissioner officers are conducting across Canada? Have you had an opportunity to participate in one?

Ms. Anne Jackowetz: Yes, I sat on the panel in the one for Kitchener-Waterloo, and it was very beneficial. I think it had a good response. That was the first time, too, that we had everybody from all the different ministries gathered in the same room and saw them together, and hopefully they'll be working together in future endeavours like that.

Hon. Ron Cannan: Ramona?

Ms. Ramona Materi: I have not attended the events. I am aware of them. In fact, it was one of my recommendations that I made to the committee. It may be expensive in time and money, perhaps, but it is this kind of face-to-face event that is bringing companies into the room and bringing the various alphabet soup of agencies together. Again, thinking of the size of firms, if you're wanting to reach out, one thing to consider is offering them on a weekend, on a Saturday or that type of thing.

My other recommendation for them was to look at smaller markets, in a certain sense, like a Nanaimo, and other places such as Prince George, which may in fact have some potential world-class companies that are serving the agriculture sector or the resource sector and so forth.

• (1630)

Hon. Ron Cannan: There is one next week in Nanaimo, ironically, and it is about the relationships of people around the table.

Claude, have you had a chance to—

The Chair: We're going to have to cut you off right there, Mr. Cannan.

Hon. Ron Cannan: I was just going to ask if he knew about that.
[Translation]

Mr. Claude Choquet: I am not familiar with those workshops. I took part in some of Minister Ed Fast's activities that were held every six months and that Ramona Materi was also part of. Otherwise, what you are saying is new to me.

[English]

The Chair: I'm sorry. Hopefully one of the other colleagues will pick up the question.

We'll go to Monsieur Morin.

[Translation]

Mr. Marc-André Morin (Laurentides—Labelle, NDP): Thank you, Mr. Chair.

Ms. Bak, in my riding, we have a company that specializes in renewable energy. It is the first company in Quebec to trade carbon credits with California. What you were alluding to previously is perhaps a huge market for all our SMEs that export their products. We are not seeing it in Canada, but some countries around the world are coming up with regulations to encourage clean technologies. Even in China, the requirements for architecture and transportation are very advanced.

In your view, what potential could we exploit if we just opened our eyes and looked at reality from that perspective?

Ms. Céline Bak: I assume you are talking about Biothermica. Is that the company you are referring to?

Mr. Marc-André Morin: Yes.

Ms. Céline Bak: They are a jewel in Quebec's crown; they do very good work. Enerkem is another example along the same lines. A number of companies in Canada can capitalize on the impact they have on the carbon market. It is certainly possible to increase the level of knowledge in those companies, which could put a value on their impact on greenhouse gas emissions and ensure that they survive and grow strong.

Mr. Marc-André Morin: In your view, is there any virtue in exploring the regulations in the countries we are doing business with to see what possibilities are out there? I am thinking, for example, about incentive programs in renewable energy.

Ms. Céline Bak: Companies in the sector are already doing that. The regulations set the stage for the markets, whether for water, for renewable energy, for energy efficiency or for transportation. Regulations always set the stage for the markets.

Yes, Environment Canada could produce a summary of all the regulatory changes around the world that our companies could use. That kind of summary would be a useful tool for our businesses.

Mr. Marc-André Morin: In terms of those missed opportunities you briefly mentioned, is that fact that Canada is not part of the Asian Infrastructure Investment Bank going to limit our companies, such as our engineering or service firms, when it starts raining infrastructure contracts?

[English]

Ms. Céline Bak: There is an upside and a downside to the China development bank. The bottom line is that you have to pay to play, period, end of story, but it's not enough to pay. You have to pay and then you have to pay for demonstrations, so you have to be a shareholder, and then you have to show up with money to work on a particular project.

In the case of that bank, I expect that microgrids would be an area where we would want to show up and say that we have something special. Carbon capture is another area where we would want to say that we have something special. Low-carbon water is another area where we could be given a sandbox within an eco-town, where we could demonstrate what we have, and have the services that go with it, and from there do very well.

One of the downsides of being so serious about renewing infrastructure in Canada, which this government has absolutely been, is that Canadian engineering firms are really busy at home. We need to think about the fact that we're going to need to find international engineering partners for some of these projects. There is a sort of balancing act to play there.

• (1635)

[Translation]

Mr. Marc-André Morin: Thank you.

Ms. Materi, do you feel that government institutions have enough data on companies to be able to appropriately match good companies with worthwhile areas?

I am on the outside looking in, but it seems to me that we do not have an industrial strategy like Korea or Japan, for example. We do not really have an industrial strategy aimed at specific areas.

[English]

The Chair: Mr. Morin, you're over your time by 10 or 15 seconds, so I think I'll stop you there.

We'll move on to Mr. Shory.

Mr. Devinder Shory (Calgary Northeast, CPC): Thank you, Mr. Chair.

Thank you, witnesses, for coming here and enlightening us.

I will start with you, Ms. Materi, because you have experience living outside of Canada. You've lived in India and Australia. I'd like you to comment on whether or not Canadian companies understand foreign business cultures. This Monday we had a witness here who mentioned that to do business in China, you need to understand how business works there. Of course, I was born in India, and I grew up there. I can tell you that the business attitude in India is different from the attitude in Canada.

Do you find that Canadian companies are adequately informed about the personal aspect of business cultures in other countries? If not, how would you recommend that we address this information deficit?

Ms. Ramona Materi: To answer the first part of your question, I think probably that smart exporters, when they're starting out, try to go into a country where there's a business culture match. Maybe that's why there's a tendency to go to the U.S., because there is a match there. I would think that smart exporters who start off in Turkey, when there's nobody in the family in Turkey and who have never lived in Turkey, or were never an exchange student in Turkey, nothing, nothing, nothing.... I think the companies who are doing well get their feet wet in similar cultures.

With regard to the longer term, I just look at myself. I was a girl who grew up in North Vancouver. Because of the Rotary Club, I got to spend a year in India. Because of the Canadian government, I spent two years in a school where there were kids from 55 countries. Because of the Rotary Club, I studied in Switzerland. Because of an agricultural organization, I studied and worked in Australia. I think it is a longer-term strategy, and I think the efforts the government is making to support international student exchanges are absolutely crucial.

There's also remedying the issue in the short term. I personally have visited Turkey, but I've never done business there. Are the trade commissioners providing reality checks, as I presume they try to do, for businesses in terms of it being a different culture? It may prevent startups from just going in and then pulling back because they had no idea how people did things in China, whereas another company—such as yours, that has had a lot of experience in markets—is developing that knowledge.

Beyond a four-year election cycle, it's the long term. By the time I was 25, I had quite a bit of knowledge of different countries. I think it's very important that we continue to do that with people in exchanges and so forth.

Mr. Devinder Shory: Okay.

Ms. Jackowetz, you told us about your experience with the TCS, BDC, EDC, etc. Did the advice that Cravo receive reflect detailed

knowledge of target markets, the business climate, the standards and interests, and the procurement processes in other countries?

● (1640)

Ms. Anne Jackowetz: I can't say definitely that this is where we got our knowledge from. For a lot of it we did our own research. By the time we engaged these parties, we already had our markets in mind and had done our research.

I will say, however, that there are some programs that EDC has been working on. I took part in one just the other day, a webinar that EDC put out on doing business in India. I was able to listen for over two hours. Canadian businesses who had successfully gone into the Indian market talked about their experience. To me, sharing stories with each other is great. They talked about what they found to be successful. I think programs like that are really valuable for us.

On our behalf, what we find useful is having somebody on the ground in those new markets that we're going into, somebody like a sales consultant. If we don't have a demonstration house there, we need to have somebody on the ground who is local and who can help us with that.

Mr. Devinder Shory: Ms. Bak, in your experience with the clean tech industry, did you use CCC's services in contracting with foreign governments and, if so, can you comment on the service you received?

Ms. Céline Bak: I have not personally. The CCC has not announced any major contracts in this field. I do think, though, that the clean technology industry has a number of characteristics that would retain the CCC's attention, such as the size of the transactions and also the fact that in many countries we're talking about—

The Chair: I have to cut you off right there. I'm sorry, but we went to five and a half minutes.

Mr. Donnelly, I'll let you go for five and a quarter.

Mr. Fin Donnelly (New Westminster—Coquitlam, NDP): Thank you, Mr. Chair.

Thank you to our witnesses.

Ms. Materi, I was interested in your comment about targeting cities. Could you perhaps give the committee some advice on how we could combine your suggestion of targeting cities with the way federal government export promotional agencies work, and what you suggest the government might do differently?

Ms. Ramona Materi: One of the things was a very good point from McKinsey, which was to encourage the growth of sister-cities. These are British Columbia figures. Twenty of the sister-city agreements that British Columbia cities have are with Japan; five are with China, and one is with southeast Asia. There is none with India.

That may be different in other provinces, but is there support for those sister-city pairings? I think that would be important.

Also, your trade commissioners have limited resources. Do you say we're going to make a concerted effort to go into this second-tier Chinese city because it has a lot of opportunities for a lot of sectors in Canada? We're going to beef up our trade commissioner folks on the ground there, and we're also going to have a message across the country in those targeted sectors to say we're really making an effort; we're really trying to do a lot of on-the-ground research and work, because it can serve a broad range of Canadian sectors doing business.

Mr. Fin Donnelly: How important is it to work with the state or the province or the country, as well as with the city, in the target countries?

Ms. Ramona Materi: I think that would probably depend on the country you're dealing with. I think for this sister-city pairing, to continue with the mandate, we would do that through our target markets in emerging markets, and the country and its state of government and so forth would determine the level of involvement by other governments that you would need.

Mr. Fin Donnelly: Ms. Bak, Canada seems to be behind the eight ball in clean tech industry development while European and Asian countries are rapidly developing their sectors. Is there still time for Canada to recover lost ground in this sector and to build a globally competitive industry cluster here at home?

• (1645)

Ms. Céline Bak: I absolutely think there is. I think it would be on the basis of what one might call “clean tech 2.0”, which is going to be about more distributed technology, or less centralized technology.

We're going to stop spending 20% of municipal budgets pumping clean and dirty water around. We're going to treat the water where it is, rather than moving it around, because doing that involves an awful of GHGs.

We're not going to build enormous transmission lines between very large grids. I'm talking about 200 megawatt grids. Microgrids will be in the order of 30 megawatts. These are very large grids.

We actually have engineering experience and expertise in this area, and we have technical experience. We also have the financing. So we can certainly turn the ship around, but I have to say we haven't taken the first-round opportunity. It's time for us to step up.

With regard to cities and states, sometimes the procurement is done by the city and the money comes from the state. So the money conversation is about whether it's Canada's turn, and that's a diplomatic discussion, not a commercial discussion.

Mr. Fin Donnelly: Great.

I just have a very quick comment in the short time I have left about innovative and value-added industries, whether it's solar in China or auto technology in South Korea and Japan, and the important role played by domestic demand in underpinning the industrial buildup of immensely successful export industries. Government incentives in Canada for the clean tech sector are few and far between, unlike in other parts of the world.

Do we in Canada need to understand the relationship between the quality of today's domestic market for innovative and value-added products and services in tomorrow's export success in those sectors?

Ms. Céline Bak: Yes, absolutely, and electric vehicles is a good example. You may be aware that the U.S. government made a very strategic loan to a large electric vehicles company in the order of \$450 million. That loan has been paid back. There are also incentives in the U.S. for electric vehicles.

Canada is not going to get electric vehicle mandates within the automotive industry unless we have a domestic market of some kind.

The Chair: I'm going to have to cut you off there, I'm sorry.

All right, and we're going to go to Mrs. Grewal, then I have Mr. Allen, and then one more NDP question.

Mrs. Nina Grewal (Fleetwood—Port Kells, CPC): Thank you, Chair, and thank you to our witnesses for coming today and for taking time out of your busy schedules to share your testimony with our committee.

My question goes to Ms. Jackowetz.

Ms. Jackowetz, as you know, our committee is considering the issue of global opportunities for Canadian small and medium-sized businesses. Cravo Equipment has had considerable success in transitioning from a manufacturer of retractable tarpaulin systems for dump trucks to a company that designs, manufactures, and distributes retractable roof greenhouses around the world.

In what countries do you do business and what type of obstacles has Cravo Equipment had to overcome in order to increase exports and establish your business in new markets? In your opinion, what is the secret to your success in expanding into new markets and what kind of opportunities do you see for Canadian businesses in international markets?

Too many questions.

Ms. Anne Jackowetz: I can do the summary version here.

Let's start with exporting. I think I mentioned that South Africa, Australia, and Mexico are very good markets for us. We have targeted warm climates because of the type of greenhouse. We don't do a lot of sales in Canada because we're not keeping the warmth in, but want to let the warmth out. When it gets too hot in hot climates we are able to shade and then open up again and keep the plants from stressing out too much.

Having said that, we are focusing on those kinds of climates. We had projects in Nigeria, and the U.K. is trying our house out for strawberries now. Chile is doing seeds testing there. Mongolia is doing reforestation with trees and young seedlings. The Philippines is doing rice research with our house and in Brazil a water park project was using our house.

We continue to develop. We got our first project in India. We definitely take a look at the markets where our house will do the best. That's where we target and we've been successful with that strategy.

As far as barriers are concerned, the biggest barrier is demonstration. We need to show them that they can work in their climate. Even though they see the Mexican example, where we have a demonstration house, they want to see it work in theirs. We have to incur the expense and the risk of building there and doing the whole maintenance of the project without any sales. That's our biggest obstacle I would say.

● (1650)

Mrs. Nina Grewal: Ms. Bak, Analytica Advisors has contributed tremendously to giving an identity to the clean tech industry in Canada. How would you define a clean technology company? Also, could you elaborate a little on the potential of Canada's clean technology exposed to developing countries.

Ms. Céline Bak: We actually have taken a very conservative definition. The definition of the industry as having 41,000 people employed today is within innovation-based firms, which doesn't include project developers, the engineering firms, or the departments of renewable energy within the utilities. It's a very small core. These are the firms that have intellectual property that they will commercialize and therefore be in a position to export. So it's a very small core definition. Therefore, the overall footprint of the industry is in the order of four or five times greater, because that's the supply chain and all of the services that go around it.

In terms of the international development, I think this government has done a wise thing, which is to bring the development department, CIDA, within the then DFAIT.

There is an opportunity to increase the awareness within the department about the solutions we have to offer that have to do with water and energy, and with stopping pollution of the air and the earth.

So that's the next step. I think we need to consider this, and it may be in the context of the mining industry, where every mine needs its own energy and its own water, and where those facilities need to be managed in a sustainable way.

The Chair: We'll have to move on to Mr. Allen.

Mr. Mike Allen (Tobique—Mactaquac, CPC): Thank you very much, Mr. Chair, and thank you to our witnesses for being here.

I'd like to start with Ms. Materi and Ms. Bak, and I want to talk about services.

Ms. Materi, you talked about the growing exports and the potential for services, and I agree. Also, when you look at the amount of money that's being invested in universities, we have a tremendous research network in Canada with the universities we have across Canada. There are also a growing number of students as a result, because there truly is a trickle-down impact on that in growing research knowledge and types of technology knowledge. So it would seem to me that the opportunities for services will continue to grow.

But also to your point, Ms. Bak, there's a tremendous demand here at home, and we're short of engineers. We hear that all the time. So given some of those constraints, I'd like to ask you how much we think that service sector can grow. I'd like to have both of your opinions on that.

Also, in testimony that was given the other day, we heard that in exporting services we run into challenges with the movement of people between countries, other blockages, and those types of things. So I'd appreciate it if you could comment on that too.

Ms. Ramona Materi: Céline, I think you can probably comment better on the scientific and technical aspects.

To your point, sir, I don't have the figures and I would like to support what Céline has said about really having the data. That's where some of my suggestions come in, even for having a research chair in SME export development.

I don't know if we're really taking advantage of the opportunities we have in educational services, as an example, with the brand that our universities have, the research networks, and everything else. I don't know if the figures are there. There may be figures for the number of students coming here and all that, but what about us going abroad and setting up those schools where potentially you could have a public-private partnership model and do quite well there?

I'll leave some time for you.

● (1655)

Ms. Céline Bak: I'll just take the example of South Korea. We have had some interesting success in South Korea. I had the privilege of going there, and everywhere I went I met a senior executive who had spent a year studying in Canada at some point, or who had a child studying in Canada, or had some personal tie. So those are terribly important ties.

I think we also need to be clear about what kinds of human resource capacities are needed. We know that in clean technology it's actually not about engineering, but international business development. Do we have a program in international business development? That's a really tough skill set. There's no career path. It requires apprenticeship. Is it key to exports? You bet, it's very important.

Mr. Mike Allen: I want to follow up on that, because you talked about data, and I'd like to ask Ms. Bak to comment about the exports by the size of firm and everything. Do you have a suggestion on the best way to pick up that information?

Depending on how quickly you answer, I'll probably have a quick follow-up question.

Ms. Céline Bak: Statistics Canada has been beat up a lot.

Mr. Mike Allen: I knew you'd say that.

Ms. Céline Bak: You'll take that one.

Mr. Mike Allen: Okay, now I'll go to my next question. I have never seen small business so angry with Statistics Canada with respect to the business surveys, and small and medium-sized enterprises that are running their businesses seem to be the ones that get bombarded, right?

Ms. Céline Bak: Can I offer an alternative? The alternative is firm-level data. The CRA produces firm-level data. There is an exports register that can be connected to the SR and ED database, which is where we know who is investing in R and D, and it can also be connected to the employment database. Technically, there's no reason in the day and age of big data that we couldn't do that on a quarterly basis.

Mr. Mike Allen: Yes, so your assertion is that the data resides within our databases somewhere.

Ms. Céline Bak: It's all there.

Mr. Mike Allen: It's just a matter of needing to mine it?

Ms. Céline Bak: Just sort by size of firm.

Mr. Mike Allen: Perfect. That's good, because I don't want my small businesses.... They're going crazy now.

For the last question, Ms. Materi, you were talking about the standardization of the Go Global workshops. I think it's a great idea, because if you standardize them, presumably you can offer them at less cost.

What would be the one key recommendation to standardize them?

Ms. Ramona Materi: Develop a good method of outreach to get businesses there; standardize that. Work it until it works well.

Mr. Mike Allen: Okay, thank you.

The Chair: I'll stop you there.

Mr. Donnelly and Ms. Liu.

Ms. Liu, are you going first?

Ms. Laurin Liu: Yes.

My first question is for Ms. Materi, considering the fact that you work in attracting, retaining, and recruiting qualified workers. We've heard a lot from other witnesses in committee about visas and passports, and the difficulties posed with regard to cost, difficulty of access, or the possibility of having two passports. Could you speak on that, and do you see that as an obstacle?

Ms. Ramona Materi: The passport issue?

Ms. Laurin Liu: Visas and passports, yes.

Ms. Ramona Materi: Is that for people crossing borders? I'm sorry.

Ms. Laurin Liu: In terms of exporting services, is that a concern for you?

Ms. Ramona Materi: No. I would speak for members. As was mentioned, I'm a member of the small business advisory committee, and for some companies, that's so. I think you've heard from

witnesses who have said if they could have dual passports, or two passports, because.... I'm not going to pick on a country, but they take a month, and if people have business trips to do, that can be an issue.

Maybe you can comment, or others can. Has your firm run into that?

Ms. Anne Jackowetz: No, we haven't seen that. For all our business we hire local installers, so we don't have that issue with visas or anything.

Mr. Fin Donnelly: I'll jump in with a final question for Ms. Bak. What do you think Canada can learn from other jurisdictions around the world when it comes to SME export strategies, specifically in the clean tech sector, but also, more broadly in the innovative and value-added sectors?

Ms. Céline Bak: Other countries in the world have made this a strategic sector. They may not be blessed with the natural resources we have, but they have actually decided that this is an important sector for them. So their chambers of commerce are engaged in value chain development. For example, they will finance demonstration projects. As another example, they will actually put forward this industry as a part of their diplomatic agenda, so it is part of engaging in discussions about energy security, for example, and about climate change and other matters like that.

Those are some examples of how other countries are operating.

● (1700)

Mr. Fin Donnelly: Thank you.

The Chair: I want to thank the witnesses for presenting here today. It's been great. I'm going to let you go now.

I understand there is a motion coming forward.

Mr. Gill, did you want to proceed?

Mr. Parm Gill: Yes.

The Chair: I will release the witnesses. You are free to go.

Mr. Gill, you'll have the floor.

Mr. Parm Gill: Mr. Chair, is this in camera or is it public?

The Chair: It's up to you. If you'd like to go in camera, we could.

An hon. member: I've always kind of preferred [*Inaudible—Editor*]

The Chair: Why don't I just suspend for a minute while we go in camera.

[*Proceedings continue in camera*]

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