



Marine Industry Advisory Committee

Marine Industry Advisory Committee Summary Report



Halifax Meeting - March 26, 2019

Prepared by
Public Services and Procurement Canada
Marine Commodity Management Office



Marine Industry Advisory Committee

Executive Summary

The MIAC is a DG level committee with membership from PSPC, DND, CCG, RCMP, ISED, Transport Canada, six marine related industry associations plus five market segment participants. This report covers the deliberations and outcomes of the first MIAC meeting held March 26, 2019 in Halifax with takeaways in the following areas of discussion:

Situational awareness:

- Accelerated Small Vessel Construction (SVC) & Repair, Refit and Maintenance (RRM) tempo for Industry and GoC
- Industry needs better visibility on proposed refit or SVC timelines
- Challenge for GoC to adhere to planned schedules while meeting operational requirements
- Challenge for GoC to develop comprehensive work packages prior to work period
- Industry and GoC need better situational awareness of vessel condition
- Challenge in attracting and retaining skilled labour for Industry
- Challenge in retaining & growing technical expertise in partner departments
- Need for a HR working group to assess scope and solutions to marine HR challenge

Performance based logistics:

- Socialization of the concept of sustainment
- Interest by Industry

Vendor performance management:

- Socialization of the concept of VPM
- Interest by Industry of VPM but RRM VPM needs special considerations

On-site technical services:

- Industry very supportive
- Thresholds for presence to be considered
- CIMarE interested in participating in WG to assist with solution development

Innovation & greening:

- Industry supportive of embedding innovation and greening in proposals
- Industry receptive and noted private sector leading change while Government should take position

Market development support:

- Industry would appreciate any sign of GoC's use of or satisfaction with services and products as it helps expand markets
- Support would be appreciated to assist showcasing products abroad.



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This first MIAC meeting was highly successful thanks to the great participation of Industry and client departments. The next meeting is planned in Montréal on June 18th. The following table outlines the meeting's action register:

	<u>Action Item Name</u>	<u>Action Item Description</u>	<u>Action Item Status</u>
1	Skilled labour shortage – HR WG	Gov't and the marine industry (all sectors) are in pressing need for technical expertise and/or trained skilled personnel (welders etc.). An HR working group be struck to review the challenges and investigate options and synergies (with other government departments, provinces and territories, academia etc.) to address the gaps. MCMO Secretariat to investigate.	
2	Showcase support / Funding for Promotion of Industry Internationally	Industry noted the need to showcase accomplishments achieved within the realm of government contracts. MIAC to investigate funding/other considerations for industry and GoC to jointly promote Canadian marine products/services at international events. MCMO Secretariat to investigate and liaise with GAC (and ISED if applicable) to determine what programs are in place.	
3	ISED attendance at MIAC	The MIAC should include an ISED representative to provide input/perspective with regards to a wide range of topics, including the ITB/VP policy, BiC and economic leveraging options for GoC requirements. How the Canadian content policy applies to crown corporations requires further investigation. MIAC Chair to invite at the request of industry to participate in MIAC.	
4	PBL/PBC contract examples	MCMO Secretariat to liaise with CFA on examples of PBL/PBC in place for CFA contracts, as well as to inquire if they have experience at the system/platform level.	
5	Innovation Programs links	It would be beneficial to have all innovation programs links on one website. MCMO to liaise with ISED to verify availability/completeness of information.	



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Overview

The Marine Industry Advisory Committee (MIAC) is the external forum that the internal to government Interdepartmental Marine Committee (IMC) can leverage to discuss Small Vessel Construction /Sustainment recommendations as well as opportunities and challenges collectively facing the Canadian marine industry and government. In addition to providing advice and recommendations to the IMC on plans and actions moving forward, the MIAC may also establish tiered subject matter expert panels to solicit more detailed feedback and advice on specific segment relevant topics.

This summary report, while not exhaustive, embodies the feedback from industry and government representatives to the topics constituting this first meeting.

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Acronyms

AOPS	Arctic Offshore Patrol Ship
BiC	Buy in Canada
CA	Contract Authority
CBSA	Canadian Border Security Agency
CCG	Canadian Coast Guard
CFA	Canadian Ferry Association
CGC	Coast Guard Collage
DG	Director General
DND	Department of National Defence
G2B	Government to business
GoC	Government of Canada
HR	Human Resources
IDEaS	Innovation for Defence Excellence and Security Program
ISED	Innovation, Science and Economic Development Canada - formerly Industry Canada
ISS	In-Service Support
ITB	Industrial Technological Benefits
JSS	Joint Support Ship
KPI	Key Performance Indicator
LNG	Liquid Natural Gas
OPP	Oceans Protection Plan
MCMO	Marine Commodity Management Office
MIAC	Marine Industry Advisory Committee
MPM WG	Marine Procurement Modernization Working Group
MSSVS	Marine Services and Small Vessels Sector
NCR	National Capital Region
NSS	National Shipbuilding Strategy
PBL/C	Performance Based Logistics/Contracting
PSPC	Public Services and Procurement Canada
RFP	Request for Proposal
RMC	Royal Military College
RCMP	Royal Canadian Mounted Police
RCN	Royal Canadian Navy
RRM	Repair, Refit and Maintenance
SA	Supply Arrangement
SR&ED	Scientific Research and Experimental Development Tax Incentive Program
SVC	Small Vessel Construction
TA	Technical Authority
TC	Transport Canada
TI	Technical Inspector
VP	Value Proposition
VPM	Vendor Performance Management
VPM WG	Vendor Performance Management Working Group



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1.0 Opening Remarks and Background

The Director General MSSVS opened the meeting by qualifying the MIAC as a transformative journey to improve communication with industry. PSPC, with the help of partner departments (DND, CCG, RCMP and TC), put in motion a series of actions to better engage with industry. PSPC established the Marine Commodity Management Office (MCMO) in June 2017 to develop and manage a national approach to marine procurement. The MCMO has three broad thrusts:

- Enhance marine commodity knowledge, improve consistency and coherence of marine procurement services, and to share tools, best practices and lessons learned. This is accomplished through the Marine Chapter, encompassing marine procurement professionals from across all regions (including the NCR);
- Enhance marine industry/stakeholder engagement; and
- Develop program strategies & procurement modernization initiatives for small vessel construction and repair, refit and maintenance.

The MCMO created the Marine Procurement Modernization Working Group (MPM WG) composed of DND, CCG, RCMP, TC and ISED, to address and discuss program strategy issues and find client-based solutions to procurement challenges raised by the Marine Chapter. The MPM WG held a series of four industry consultations starting in November 2017 in Hamilton, then Halifax and Québec, and culminating in Victoria in April 2018. An Interdepartmental Marine Committee (IMC), which operates at the DG level, provides strategic direction for issues that transcend multiple departments whereas a Marine Chapter Steering Committee provides direction on procurement.

As such, Government has put in place the internal governance structures to improve its processes, consistency and approaches, but felt that an important piece of the puzzle was missing, namely the government to industry interface. The IMC endorsed the creation of the Marine Industry Advisory Committee (MIAC) as the external forum which can be leveraged to discuss recommendations, opportunities and challenges affecting the Canadian marine industry.

The Director General MSSVS thanked his colleagues from client departments, the six associations and the market segment representatives for their engagement and said that he looked forward to the day's deliberations.

2.0 Situational Awareness - Government Department perspective

This segment of the agenda was dedicated to gleaning a better understanding of the operational context facing government departments.

Canadian Coast Guard - Sam Ryan

- Fleet is getting older and vessels require additional maintenance.
- The CCG is better funded than in the past - the more pressing funding challenges include meeting more operational factors such as meeting science or ice breaking work and also dealing with an ageing fleet of ships.



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- Ice breakers' required use leaves little time to refit them.
- Recent and future Viking class introductions to the fleet have and will help to free up ships for refits and maintenance work.
- Repair and refit is a team effort between CCG, PSPC, and industry partners.

Royal Canadian Mounted Police - Darren Mierau

- Challenges for the RCMP include the organization being spread out across Canada which, in turn, means that resources are spread out, the funding is a combination of federal and provincial funding, and buying ships is a more complex process than other fleet items such as cars.
- Lifecycle management is in the forefront more than it has been in the past.
- RCMP is looking to be more strategic in its marine procurement.

Public Services and Procurement Canada - Dave Hatherall

- The GOC is managing ageing fleets and is in the process of acquiring ships to augment, replace, and add new capabilities for the GoC fleets (for example, the Halifax class frigates are on average approximately 25 years old).
- Corrosion on older ships is an increasing issue.
- This type of collaborative meeting can help to find solutions on what can be done to address the GoC's needs and challenges.

Royal Canadian Navy - Commodore Chris Earl

- With increasing global risks/conflicts the current requirements of the RCN are greater than ever before and will require more resources in the future.
- Currently the RCN has typically 25 percent of its ships at sea at all times, including three large RCN ships outside of Canadian waters. Combined, these activities put greater pressure on fleet maintenance.
- The Harry DeWolf class, Arctic Offshore Patrol Ship (AOPS), will provide much needed new capability.
- Safety and the environment are of increasing importance within the RCN.
- The size of vessels are also increasing, with the AOPS being a new capability and CSC being twice the size of vessels it will replace.
- The CAF has over 300 projects within the fully funded Defence Policy, Strong Secure, Engaged.
- The RCN is increasingly using a hybrid partnership maintenance model, working with industry to complete certain elements of maintenance/ISS for vessel types and/or classes. This model has the RCN and industry working in an enterprise approach.
- Two (2) main issues for the RCN are:
 - The current maintenance capacity within the public service dockyards is not sufficient to meet all fleet needs; and
 - Limited workforce /skilled labour availability.

Transport Canada - Mike Freeman

- TC is expected to satisfy the interests of the passengers as well as those of the operators.



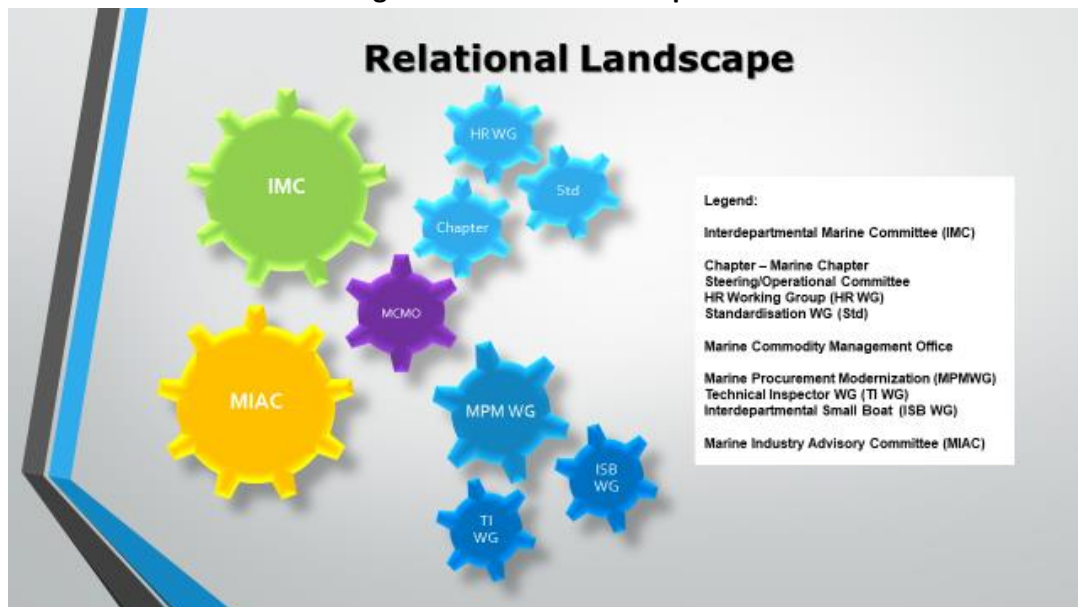
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- TC owns some boats, however they are operated by third parties.
- TC currently has little technical expertise in house and external resources or other departments are used to make up for the lack of resources.
- TC could use other in-house expertise, however it is not easy to find staff with expertise – there is a need to bridge the gap.
- There are new vessels to be procured as well as ships to be disposed of; these activities will be covered during the Procurement Outlook.

Public Services and Procurement Canada – Dave Hatherall

- Recent GoC contracts such as AOPS and JSS, incorporate newer contracting methods, such as those related to relational contracting.
- The GoC needs to work with industry in order to develop innovative approaches to deliver on GoC requirements.
- New approaches include contracting for in-service-support (ISS) well in advance, so that it is ready when required.
- The GoC had in-house technical inspectors (TIs) in the past and is looking to bring this capacity back in some format to address the requirement for an on-site TI type of role at ship yards.
- PSPC is working to improve the consistency of the contracts or solicitations across Canada.
- Procurement Outlook in April will talk about upcoming requirements.
- The gears diagram (see inserted **Image 1 Relational Landscape Slide**) shows how we as government are working together to address items related to future requirements:

Image 1 - Relational Landscape Slide





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3.0 Situational Awareness - Marine Industry Comments

This segment of the agenda was dedicated to gleaning a better understanding of the landscape facing the Canadian marine industry as reported through the MIAC member associations and market segments.

3.1 Association perspectives

Canadian Ferry Association (CFA) - Serge Buy

- CFA members are carrying out a major fleet renewal, the association is purchasing three (3) new ferries and another 256 need support.
- CFA members, while focused on delivering services, are attuned to environmental needs and are considerate of killer whales and the need to operate more silently to prevent marine life disruption.
- The availability of knowledgeable shipyards, labour, as well as the cost of domestic versus international work are significant issues for the CFA.
- CFA members tend to use firm fix price contracts.
- Ferries can't always get built, repaired and maintained in Canada, in part because the NSS is filling up the Canadian yards with work.
- The ferry sector is very active and there will be significant upcoming procurements; there is a global impact with such demand.

Nova Scotia Boatbuilders Association (NSBA) - Jan Fullerton/Tim Edwards

- The NSBA represents 45 (forty-five) boatbuilding companies with a number focused on small fishing vessel construction. According to their records, five (5) companies bid on government contracts. The prime reason for other members to not bid is that the process is challenging and the procurement of small boats is spotty and sporadic. It is also deemed too risky to bid on government contracts. On the other hand, bidding on GoC work better prepares companies to bid on international work.
- NSBA members highlighted that attracting young talent to the marine trades is challenging and that the association is focusing on raising interest.
- There has been an increased focus on ocean technologies, with the ocean super cluster, there are more opportunities to get engaged.
- HR is also an issue for small boat builders

Canadian Association of Defence and Security Industries (CADSI) - Nicolas Todd

- There is a fine balance to be achieved between supply and need, demand versus capacity.
- There are adjacent market places - how do we address these issues?
- While outlook platforms are quite useful, it is important to provide the greatest detail possible.
- There are challenges surrounding export and adjacent markets.
- There is a greater appreciation/need for coordination and collaboration.



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Association of British Columbia Marine Industries (ABCMI) - Leann Collins

- The high cost of labour, high property values in BC are challenging on the West Coast.
- Vessel construction skills and qualified marine tradespeople are scarce and attracting resources is challenging.
- The Jones Act in the USA is something that prevents Canadian companies/yards from doing work for the USA.
- Canada and the USA can possibly work together in an increased capacity to align standards
- There are opportunities within a suite of “soft” vs “hardware (physical)” services such as design services, software or research and development.
- In order to build in Canada, it needs to be cost-effective.
- It is important to develop a baseline for future work.
- ABCMI appreciates the opportunity in participating in MIAC.
- The Canadian industry is in part too dependent on GoC contracts.

Atlantic Canada Aerospace and Defence Association (ACADA) - Richard Billard

- Competing on Government contracts is complex and the cost of assembling a bid is significant.
- There is a recognition that there is a need to export and compete on a global scale.
- HR capacity is a significant issue that needs to be addressed.
- There are opportunities to invest in infrastructure effectiveness, advanced manufacturing and reduce reliance on HR. There is a need to be more competitive and capitalize on export opportunities.
- Has the Government of Canada considered Buy-in-Canada for all of its small boat contracts?
- Capacity, consistency, and competitiveness are issues.
- High cost to bid on the Tier 1 work. For example, it could cost one hundred million (\$100,000,000) to bid on the large ship contracts.
- Investment needs to be made in infrastructure.
- Small and medium enterprises need to be built up in order to do the work that is needed of them.
- Industry needs to leverage the domestic wins and build capacity to then do international work.

Canadian Institute of Marine Engineering – Bud Streeter

- There is a pressing need to encourage young people to enter the trades.
- Academia, federal and provincial governments have a role to play in promoting/funding the development of skilled labourers.
- Transport Canada regulations should be updated to reflect the new realities associated with technology.
- The government should assist in supporting the attendance of industry at trade shows and foreign conferences and foster the building of international markets.

As a results of discussions the following recommendation was proposed:

- 1) Skilled labour shortage - The marine industry (all sectors) is in pressing need for trained skilled personnel (welders etc.). An HR working group be struck to review the challenge and investigate options and synergies (with other government departments, provinces and territories, academia etc.) to address the gaps.



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3.2 Industry market segment perspectives

Small Vessel Construction - Rosborough Boats – Robert Gascoigne

- The complexity of bids is a challenge for SVC companies, and as a result some companies don't bid (i.e. multi-role boat).
- The inconsistencies of RFP/bid procedures between CCG and RCN make it more complex for small companies.
- For SVC companies looking to export, there is little support from Government to showcase product lines. In comparison, other countries showcase/display products at international venues. It would be appreciated if GoC could invest in better showcasing industry products.
- There is no funding available and to seek SOLAS certification and ISO certification is quite costly at over \$100K. Canada should consider programs to help with these certifications.
- Bidding on international work may require funding for international travel and other costs.
- Consistency in Canadian Content would be beneficial to industry. For example, the multi-role boat (greater than \$20,000,000), included requirements for final assembly in Canada but not necessarily built in Canada.

Small Vessel Construction - Chantier Naval Forillon – Jean David Samuel

- In order to compensate for the labour challenges, ensure consistency and efficiency, CNF is looking towards innovation such as robotics.
- It was noted that designs that are received are sometimes flawed or too early to start work; a design build or ready package should be considered.
- There is a need for a constant flow of work in shipyards to be able to retain the workforce.
- Alongside work may be a less expensive way to do some work but it is not always an option for all work.
- Someone on-site to do the approvals would speed up the process and would result in less delays. This could be similar to the way DND does this work with someone on-site to make decisions.

Supply Chain - Wartsila Canada - Pieter Groot

- Big data approach can reap positive rewards.
- Provided an overview of hybrid technologies and effect in the market place.
- From a domestic perspective, the creation of Canadian content is deemed important.
- Smart technologies can be used to solve problems. Where can we use smart technologies?
- The GOC and shipyards require a more open approach to new builds.
- Bids should include an aspect of technology and HR development in the shipbuilding process.

Repair Refit Maintenance – Newdock, St.John's Dockyard Ltd. – Richard Eddy

- Risks: resources not required on a consistent level (cyclical workloads).
- On-site support / decision-making – TI would be appreciated and valuable as the lack of TI support in place is costing time and money.
- The MIAC should encompass an ISED representative to address:



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- Value proposition for all contracts between \$20-\$100M
- BiC (assembled in Canada requires very little Cdn. content), must consider labour and/or material
- Investments to grow the Cdn. workforce
- BiC requires Cdn. capacity
- Decisions on priorities – ‘we can’t do it all!’ (Where do we focus our investments?)
- Small shipyards have difficulty competing with large shipyards.
- Opportunities can be found by selling ship/boat designs to other yards by using an in-house design team.
- Innovation is happening with the fishing industry and young fisherman/people.

Repair Refit Maintenance - Canadian Maritime Engineering - Cory MacPhee

- Basis of payment terms create pressure points for industry that often need to foot the bill for longer refit periods.
- Earlier release of RFPs would help yards anticipate work as well as prepare bids.
- A simpler bid approach would enable yards to be more responsive.
- Refits have risky payment terms when the prime contractor has to pay the subcontractor for the work that has been done and the GoC has not paid the prime contractor.
- An early notice could be helpful, so could the simplification of bids, electronic submissions.
- Opportunities include in-service support and ship disposal domestically and internationally - some foreign ships can get work done in Canada.

In-Service Support - Secunda - Darrell Sheppard

- Provided an overview of the global market characterised by an oversupply of vessels as a result of the downturn in oil and gas.
- There are opportunities in the new offshore such as windfarms.
- The value proposition approach needs to be revisited
- The opportunity to have a repeatable type of work over a 3-5 year horizon is helpful for small medium enterprise as it provides for a more collaborative client-based relationship.
- Cost to bid on government contracts is too high and would benefit from simplification.
- A better understanding the condition of the ship (corrosion etc.) could be achieved through integrity engineering. The GoC does not appear to use the latest technologies and could benefit from an integrity engineering program. It would be useful to engage shipyards in this process which could facilitate the issuance of work packages.
- It would be useful to have ISED as part of the MIAC.
- Challenges include the offshore work and low rates of pay. Oil and gas will be not doing work in NS after 2019 when the last facility closes.
- The Oceans Protection Plan work may be an opportunity.
- NFL has some opportunities however the locations are not always the best for attracting employees.
- As a challenge, opportunities overseas may be attractive for Canadian employees.



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In-Service Support - SNC Lavalin – Clint Laidlaw

- Challenges: export, skill development, R+D investments – policy not put into procurement processes for small companies (value prop.), ageing fleets
- Repeatable work as well as support from shipyards (long-term SOs for collaboration and relationship building)
- Simplify procurement (pre-qualified vendors, knowledge of assets)
- Opportunities: government to encourage innovation, R+D (funded by industry profit) – government to implement change of policy to support innovation
- Innovation on an international level to keep Canada competitive.
- Innovation and Research & Development should be part of contracts across the board to avoid the race to the bottom. There will be longer term benefits to Canada if innovation, research and development are part of more contracts.
- Bundling or packaging of work may allow for more stability in the industry and less contracting work.
- Bundling of class of ship or type of work would allow for consistency and would increase the knowledge of the vessel by the shipyard.
- A project based approach would be more beneficial for some of the work with a closer client relationship between the GoC and the industry provider.
- It would be better if the vessel condition was known before the work was to be completed. This would have less work arising items that increase costs and affect the schedule.
- ISEDs attendance would be beneficial to discuss items related to policy and issues between ISED and PSPC policy.
- ISED should consider a value proposition on all contracts.
- Canadian labour with foreign materials might be beneficial if the focus is on Canadian labour.
- Direct commitments, indirect commitments, Value Proposition, HR, export, skills development and other factors should be discussed further.
- How the Canadian content applies to crown corporations requires further investigation.

As a results of discussions the following recommendations were proposed:

- 2) Showcase support – Industry noted that showcasing accomplishments achieved within the realm of government contracts MIAC to look into funding related to international travel for industry and GoC to events to promote the Canadian marine products/services.
- 3) ISED attendance at MIAC - ISED to be invited to participate in MIAC. ISED to be invited to participate in MIAC. The MIAC should encompass an ISED representative to address value proposition, BIC (assembled in Canada, only very little Cdn. content) – labour vs. material, Cdn. labour – investment etc.

4.0 On-Site Technical Inspection

This segment of the agenda provided an overview of the ongoing work to assess the need to introduce/re-introduce a form of technical inspection/quality assurance.



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Background

- Previously, there were approximately 25 on-site PSPC TIs that would work in shipyards and worksites. Pursuant to an internal verification report, the TI function was phased out between 2011 -2013. TIs had been used to confirm work was completed to specifications and to assess work arisings and other related tasks.

Challenges resulting from the elimination of the PSPC role

- Client departments needed to assume the role but had little resources/authority to do so.
- Inspections are no longer done by a 'third party', who is not the Contract Authority nor the Technical Authority.
- Less GoC presence on-site.
- Impacts on the timely negotiations of additional work and/or work arisings.
- Progress review meetings may be less effective without onsite TIs.
- Client departments are taking on the responsibilities that were with the PSPC TIs' in the past.

Study/Review Foci

- PSPC and partner GoC departments are looking at re-introducing an on-site TI capacity. Prior to the reduction there may have been as many as 25 inspectors. A number of options are being considered in the possible expansion of on-site technical inspectors:
 1. Government of Canada (GoC) Employee
 2. Use of existing PSPC Supply Arrangement (SA)
 3. GoC and SA
 4. Contract
 5. All staffing types/options
- A number of other factors are being considered as well, including the distribution of the TIs and the department that will own the role.
- Thresholds are being considered to determine if a TI is required to be on-site at a shipyard in a full time or part time capacity.
- It may be that major shipbuilding locations have a hub of TIs with smaller locations getting visits from TIs on an as-needed or scheduled basis.

Assessment Criteria Being Explored

1. Flexibility
2. Competency
3. Timeliness to implement
4. Cost
5. Continuity
6. Objectivity
7. Manageability of option

Next Steps

- Solicit feedback from MIAC.



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- Prepare an options analysis for IMC consideration.
- Prepare briefing material for PSPC and client departments.
- Go/no go decision and funding sourcing.

MIAC members raised the following points:

- The GoC should consider having TI's if certain minimum requirements are met. (i.e. minimum contract value and risks)
- Classification society's inspector's role is different and complementary from that of a GoC onsite TI.
- TIs on site at the shipyards could help to resolve issues related to technical specifications.
- More TIs are required across the industry.
- TIs would enable work items to be approved quicker, work arisings could be dealt with by the onsite staff right away.
- Defining what 'small' is may be a helpful tool in determining if an onsite TI is needed.
- Onsite TIs are used when boats are built overseas.
- It would be beneficial to have someone (a third party) at the site who can help when the two (2) parties (client department and shipyard) have differences of opinions and to help work through the differences in specifications.
- PSPC, the shipyard, and the CCG were happy with the work that was completed and the onsite technical expertise that was present at the shipyard.
- An onsite TI can take pressure off the chief engineer
- The role that is needed may not necessarily be called a TI, but GoC workers are required at ship yards to do TI type of work.
- Accountabilities, Responsibilities and Authorities of the person(s) need to be defined.
- If thresholds are imposed then work may be shifted to larger shipyards. If there is already an onsite TI at a site then work may get directed to that yard.
- Work was completed at Newdock recently and the TI was not at the site every day. When the TI was needed the TI's presence could be requested.
- Feedback is being sought from the MIAC on the TI role. If there is an onsite worker from PSPC and they are not in an office they may be more hands on at the site.
- Industry is supportive of the creation/reinstatement of a technical inspection function. CiMarE offered to participate on identifying solutions to the TI role.

5.0 Performance Based Logistics /Contracting

This segment of the agenda provided an overview of an approach that is considered within Defence (and other client departments) to improve the achievement of mission objectives through improved availability of operational assets.



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- Education required to assist government to employ PBL concepts to develop win-win relationships to achieve mission-ready forces through cost effective contracts.
- Positive change in culture and attitude towards government and industry relationship.
- With more reliance on Industry support, government faces challenges in developing and implementing performance based contracts.
- Further dialogue required to ensure implementation of PBL achieves positive results for both government and industry
- Allies including five (5) eyes and NATO have experience using PBC.
- The USA has used it for 20 years, it is used by the UK's Navy, and is a baseline for the Australian Navy. While the legal framework of those countries need to be taken into account, PSPC should look at how those countries have introduced/used VPM in the Marine context.
- PBL/C has a role for the Canadian Army, Royal Canadian Navy, and the Royal Canadian Air Force.
- The GoC has to meet with industry to better manage contracts moving forward.
- PBL/C is connected to relational contracting.
- Trained staff are key to the implementation of PBL/C.
- KPIs work to establish expectations and roles for the GoC and industry.
- The University of Tennessee has trained some PSPC and DND staff. Some industry staff has also been trained on PBL/C.
- Further discussions are required on fixed price contracts and PBC. It could be that contracts are less prescriptive and more open to interpretation for industry to achieve the goal of the project.

MIAC members raised the following points:

- Industry appeared receptive in having less prescriptive specifications provided that describe how to accomplish tasks.
- The fixed price contract has more risk for industry but it may encourage innovation and/or improve the service models to achieve the goals.
- Are industry representatives experienced with PBL/C in the business-to-business context or in the business-to-government context? The forum appeared to have some limited experience. CFA, who has experience doing PBL/C and has had good success with it.
- SNC Lavalin pointed out that PBC/L was used in a Light Rail Transit (LRT) project. KPI's are being used to manage the project for 50 years.
- Data is required to do PBL/C accurately. Transportation and ferries use this type of PBL/C and could share data/experiences.
- Data is better at a system level over the platform level.
- How would PBL/C work for a small company? Smaller boat builders have a lower threshold for risk than bigger players.
- Would there be a work description? Industry could provide input into the work description and how to measure the work.
- Definition is needed of contractor's versus GoC's responsibilities.
- Some RCN boats/ships have the same usage or similar usage during war and peace time. These boats/ships may be best suited to PBL/C.



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- Could the PBL/C be used for refits and/or could it be used for one package at a time? The US Navy supports a platform for five (5) years and captures the data and then goes out to industry to ask for support to manage the assets.
- Data is a challenge. Other countries' Navies and other armed forces may share data with Canada, however some private sector companies will not share information and data.
- Lifecycle management and maintenance planning is key to managing assets.
- If shipyards are responsible for the condition of a ship before and after they will more likely keep track of the status of the ship?
- PBL/C will work, but real time monitoring of ships is needed so that shipyards know the status of the ships prior to the ship coming into a shipyard. Innovation can help with this.
- Design and build should include a lifetime cost, the sustainment costs of the vessel.
- Less descriptive contracts allow for more innovation to accomplish the tasks.
- There is a reluctance to use some foreign ship builders and foreign steel that can be of lower quality. A track record is needed for the ferries to be built at a location. If the ship yard does not have a good track record it is too risky for the ferry industry, as lives would be at risk.
- It is difficult to 'Build in Canada' if Canada does not have the capacity or technology.
- The costs of using Canadian shipyards is considered high, whereas other countries have skilled labour with lower total costs.
- Some methods that have been used to control costs, such as Fixed Price Contracts. Some ship yards, however, will not bid on Fixed Price Contracts.
- Increased capacity is required in order to build ferries in Canada.
- Memphis Don is the contact if MIAC members are interested in training/or want to discuss training. Industry interest in participating in training is going to be sought and industry will be invited to participate in some upcoming training.

6.0 Vendor Performance Management Regime

This segment of the agenda outlines the activities of PSPC in instituting a VPM framework, linked to the e-procurement solution, but also the thrusts that the Marine Commodity Management Office in developing a workable VPM for SVC and RRM.

Vision

Strengthen the stewardship and integrity of federal procurement by providing a means by which Canada can hold poor performers accountable while incentivizing good performance. This will:

- Optimize best value through consideration of performance in the award of federal government contracts
- Facilitate open, ongoing, two-way communications and relationship building between government and vendors
- Promote public confidence, the accountability of public funds, and responsible partnerships, aligned with and linked to the Integrity Regime



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Since 1987, this is the third time that the GoC has attempted to implement a method to manage vendor performance. This system can work, however it will require work to implement and maintain the system.

- Key to the implementation of VPM is upfront discussions on exceptions and clear KPIs.
- The VPM WG is working with industry to develop KPI's. KPIs are to be specific to the commodity. MCMO and the MPM WG will lead the development of KPIs relevant to SVC and RRM and integrate into a future marine related pilot project is possible.
- The City of Ottawa has been working on a VPM regime for some time. PSPC has been in contact with the City of Ottawa in the development of PSPC's draft policy. The City of Ottawa saw positive initial results in construction contracts.
- The length of the contract may impact the frequency of the review of the progress and/or grading/assessment of the KPIs. A short contract may require the review in a shorter period of time. Panel discussions on KPIs may be a helpful method to identify and/or refine marine KPIs. The KPIs may be different for the different aspects of the marine industry including Small Vessel Construction, Repair, Refit, and Maintenance, and In-Service Support.
- Data needs to be collected and managed and a system is needed to track the scores.

MIAC members raised the following points:

- Will the data be made public?
 - The data on companies and their performance will not be made public.
- How would a company fix a bad grade?
 - Company's most recent scores carry a greater weighting and evaluations only factor in scores from a set period of time (i.e. five years)
 - By ensuring clear goals and expectations are established up front with respect to KPI's, companies/GoC can work towards good performance measures throughout the duration of the contract.
 - The KPIs would also be in the solicitation, including how they will be evaluated
- Documents related to the VPM implementation are on the PSPC Office of Small and Medium Enterprises website.

As a result of discussions the following recommendation was proposed:

- 4) PBL/PBC contract examples - MCMO to liaise with CFA on examples of PBL/PBC that CFA members may have as well as determine if they have experience at the system/platform level.

7.0 Innovation and Greening

This segment of the agenda focused on outlining the impetus and importance that innovation and greening within the GoC's marine sector.



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Background

- The Treasury Board Secretariat has described that the effects of climate change are becoming obvious in Canada and globally.
- In response to climate change actions may be taken to (1) reduce greenhouse gasses and (2) increase the resiliency of assets, services, and operations to adapt to the changing climate.

Vision

- “The government commits to:
 - Low-carbon, sustainable, and climate resilient real property.
 - Low-carbon mobility and fleet.
 - Climate resilient assets, services, and operations.
 - Green goods and services.”

Summary

- Green and greener procurement activities are taking place. There is an Innovation and Greening Working Group.
- The GoC is working to develop methods to better reward green or greener procurements.
- The RCN has embedded a green culture across all activities with a goal of having a minimum negative impact on the environment.
- Areas of focus are underwater, energy management, greenhouse gas reduction etc.
- PSPC is supportive of green and innovative procurements and is modernizing items to better include green and innovative methods to achieve goals. Currently greening and innovation is not rewarded as it should be in the procurement process.
- Vendors can propose innovative solutions to meet the GoC’s requirements.

MIAC members raised the following points:

- Innovation could include approaches to reduce underwater noise.
 - Consider Hybrid solutions to achieve the GoC’s goals. For example, part gas and part batteries.
- High efficiency propulsion may be achieved if thin propellers are used.
- One port reduces the fees that are charged to residents if they use more efficient propellers.
- The management of assets from cradle to grave may better allow for innovation and greening.
- Some certifications, for example ISO 14001, may be hard for a small company to achieve. Small companies may be able to meet the criteria in another way instead of having ISO 14001.
- Information related to Canada’s Innovation programs should be accessible and shared with Industry.
- The GoC held G2B meetings specifically related to greening and innovation, however the uptake from industry has been limited.
- National Research Council Canada is involved in innovation and attends trade shows as a means to inform them of latest innovations and trends. PSPC, DND and other departments often attend trade shows as well.



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- What is being done nationally and internationally needs to be further explored. How can the required tasks be accomplished in a green or greener fashion? Sometimes being green is not compatible with being efficient, however some green or innovative items are more productive than the current items being used.
- Shipyard waste is an issue. Innovation may include improved paints/painting techniques, which may reduce dockings or docking durations as less paint would need to be replaced.
- An innovative coating was used on the Kingston class of ships on doors and louvers. This coating was proven to be a good product and was then added to the Halifax class of ships.
- If an item is managed then it would be measured, in order to establish the cost of innovation.
- This type of open forum fosters market development. Having ISED as part of the MIAC would be beneficial. If companies want to take vessels abroad to showcase them then ISED may be better suited to be involved in this type of activity. The showcasing of new paint techniques could also involve ISED.
- The GoC IDEaS Program¹ may be a useful tool for companies to develop innovative solutions to GoC issues/requests.
- The GoC does not always see Research and Development as a cost factor that should be factored into bidding on GoC work.
- The GoC SR&ED program has recently increased the limits and could be a way that companies get funding or reduce the costs of doing innovative work. ²
- A 'White Paper' on innovation would be helpful.
- Quieter propellers/propulsion for less impact on the marine environment and increased safety should be explored.

As a results of discussions the following recommendation was proposed:

- 5) Innovation Programs links – if possible, it would be beneficial to have all innovation programs links on one website.

8.0 Open forum - Fostering market development

This segment of the agenda concentrated on what incremental steps the GoC can take to assist marine industry in showcasing success on its contracts and/or foster visibility on achievements.

Examples of Innovation/Fostering Market Development:

- For the Vancouver Olympics there was a Build in Canada component. SNC completed a rail project for the first time and now SNC-Lavalin is bidding on rail projects in other countries and locations due to the capacity that was built as part of the Vancouver Olympics' rail project.

¹ Innovation for Defence Excellence and Security (IDEaS) Program <https://www.canada.ca/en/department-national-defence/news/2018/04/innovation-for-defence-excellence-and-security-ideas-program.html>

² Scientific Research and Experimental Development Tax Incentive Program (SR&ED) <https://www.canada.ca/en/revenue-agency/services/scientific-research-experimental-development-tax-incentive-program.html>



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- An example of the benefits of the Canadian content is the contract with Lockheed Martin Canada related to the Halifax class ships. Now Lockheed Martin Canada is doing work for New Zealand and Chile.
- In order to export military equipment, industry requires the GoC support. This could take the form of the GoC bringing a CBSA boat to a trade show to promote it. For example there is a large trade show in London, England that is well attended.

How GoC can assist with opportunities?

- If capacity is built by industry using Canadian suppliers/yards, does Canada commit to maintaining the capacity that is built?
 - There is currently 20 to 30 years of projected requirements that will be completed in Canada.
- Priorities need to be better identified.
- The GoC needs to determine the skill set required by Industry workforce.
- What forms of early engagement are preferred?
 - Industry Days are expensive for industry, videos are good, and one-on-ones are best for industry to get the required feedback.
 - WebEx for industry Outlook with one-on-one face-to-face.
 - Early engagement is beneficial, but it needs to be detailed and accurate.
- If bundling is considered, ideally, the work would be divided into three (3) to five (5) year increments.
- The bundling of work may reduce competition and then small companies may not be able to compete on the work.
- Only larger projects could be bundled so that the larger work is consistent and this would be separate from the small and medium enterprises' work.
- Bundling has been discussed in the past. If a company wins a large contract like a bundle of work then they may have to drop other existing projects.

As a results of discussions the following recommendation was proposed:

- 6) Funding for Promotion of Industry Internationally - MIAC to look into funding related to international travel for industry and GoC to events to promote the Canadian industry. MCMO to liaise with GAC (and ISED if applicable) to determine what programs are in place.

9.0 Take Aways

- Developing skilled workforce in industry and across the GoC is difficult and has been highlighted as a key issue.
- What is the intent of the committee and what is the role of this committee in addressing the labour shortage issues?
- Results are important. Adding the onsite TIs to shipyards would be a great addition to projects.
- Innovation is different for builders than it is for refits. When building to specifications, it is harder to innovate. Innovation is not currently rewarded in bidding when the lowest price wins the project. How will it pay to innovate? Industry also has a role in the innovation



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- process. Open discussion is positive and the promotion of innovation via one-stop website would be beneficial. Industry supportive of embedding innovation and greening in proposals.
- Innovation is important but how can it be achieved? Perhaps tax breaks for innovation.
 - The competitive process may need to be re-examined for future requirements.
 - Does the process in the third (3rd) pillar of the NSS foster innovation or does it foster the race to the bottom?
 - Items such as covered facilities would reduce waste and enable yards to perform some jobs year round as opposed to being limited by weather.
 - The GoC needs to showcase the good work accomplished/produced by Canadian marine companies. Industry would appreciate support to expand the market for their products or services. Support would be appreciated to assist showcasing products abroad.
 - The Canadian marine industry needs to be ready for changes and shifts in technology.
 - Bidding is complex and at times a third (3rd) party is hired to prepare bid package that may/may not be successful.
 - The GoC is working on a new/updated dry docking refit template that may help with the reduction of costs to companies that are bidding on this type of work.
 - On-site TIs are important for all contracts, including the disposal of ships. Thresholds for TI presence to be considered
 - Greening of the fleet is important. At TC, for example, four (4) vessels comprise seventy percent (70%) of TC's greenhouse gas emissions.
 - Fleet data (including vessel condition etc.) is needed.
 - The GoC needs to better refine its forecast(s) for RRM and SVC so industry can plan.
 - Challenges related to relational contracting when the contract is short. Longer contracts are better for relational contracting.
 - Overcoming Provincial barriers is possible, for example the use of East coast tools in the West.
 - In the past the GoC would only engage industry during the solicitation process. It is important to have ongoing dialogue and the MIAC is a great opportunity for which Industry is grateful.

PSPC Comments

- The plan moving forward is to take the results of the MIAC meeting to the IMC and MPM WG and determine the best course of action to address the items that were raised by the MIAC.
- PSPC has been allotted additional funding for three (3) additional resources to build on the work that has been done by the MCMO in collaboration with other groups at PSPC and partner departments.
- The next meeting of the MIAC may be in Quebec City or Montreal and may be the first (1st) or third (3rd) week of June 2019.

10.0 Closing Remarks

Dave Hatherall provided an opportunity for each MIAC member to comment on the day's deliberations. All agreed that the forum was extremely useful and well appreciated by all. Members noted that this forum has the ability to make a significant difference within the marine sector and setting up a forward looking action-oriented agenda will further solidify the success of this body.



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The Chair thanked industry representatives and client departments for their unwavering support and stated that he looks forward to the next meeting to be held on June 18 in Montreal, Quebec.

	<u>Action Item Name</u>	<u>Action Item Description</u>	<u>Action Item Status</u>
1	Skilled labour shortage – HR WG	Gov't and the marine industry (all sectors) are in pressing need for technical expertise and/or trained skilled personnel (welders etc.). An HR working group be struck to review the challenges and investigate options and synergies (with other government departments, provinces and territories, academia etc.) to address the gaps. MCMO Secretariat to investigate.	
2	Showcase support / Funding for Promotion of Industry Internationally	Industry noted the need to showcase accomplishments achieved within the realm of government contracts. MIAC to investigate funding/other considerations for industry and GoC to jointly promote Canadian marine products/services at international events. MCMO Secretariat to investigate and liaise with GAC (and ISED if applicable) to determine what programs are in place.	
3	ISED attendance at MIAC	The MIAC should include an ISED representative to provide input/perspective with regards to a wide range of topics, including the ITB/VP policy, BiC and economic leveraging options for GoC requirements. How the Canadian content policy applies to crown corporations requires further investigation. MIAC Chair to invite at the request of industry to participate in MIAC.	
4	PBL/PBC contract examples	MCMO Secretariat to liaise with CFA on examples of PBL/PBC in place for CFA contracts, as well as to determine if they have experience at the system/platform level.	
5	Innovation Programs links	It would be beneficial to have all innovation programs links on one website. MCMO to liaise with ISED to verify availability/completeness of information.	

*Action Items listed in Table 2 Action Items and within the Notes for context.



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Annex A - MIAC Attendees

Industry Associations:

- Association of British Columbia Marine Industries (ABCMI) - **Leann Collins** - Director, Projects and Stakeholder Relations
- Atlantic Canada Aerospace and Defence Association (ACADA) - **Richard Billard** - President and CEO
- Canadian Association of Defence and Security Industries (CADSI) - **Nicolas Todd** - Vice President, Government Relations and Communications
- Canadian Ferry Association (CFA) - **Serge Buy** - Chief Executive Officer
- Canadian Institute of Marine Engineering (CIMarE) - **Bud Streeter** - Honorary President
- Nova Scotia Boatbuilders Association (NSBA) - **Jan Fullerton** - Executive Director (incoming)
- Nova Scotia Boatbuilders Association (NSBA) - **Tim Edwards** - Executive Director (outgoing)

Marine industry market segment representatives:

- In-service support (2);
 - ✓ Secunda Canada - **Darrell Sheppard** - President and CEO
 - ✓ SNC-Lavalin Operations and Maintenance Inc. - **Clint Laidlaw** - Senior Manager Business Development
- Repair, refit and maintenance (2);
 - ✓ Canada Maritime Engineering Limited - **Cory MacPhee** - Estimating Manager
 - ✓ NEWDOCK, St. John's Dockyard Limited - Richard Eddy - Operations Manager
- Small vessel construction (2);
 - ✓ Chantier Naval Forillon Inc - **Jean-David Samuel** - Président-directeur général
 - ✓ Rosborough Boats Ltd - **Robert Gascoigne** - Director Business Development
- Naval architecture/engineering (1); and
 - ✓ Genoa Design International Ltd. - Leonard Pecore - Founder & Chair of the Board
- Supply chain (1)
 - ✓ Wartsila Canada - Pieter Groot - Contract Manager

Government department representatives:

- Department of National Defence (DND) – **Commodore Christopher Earl** - Director General Maritime Equipment Program Management
- Canadian Coast Guard (CCG) - **Sam Ryan** - Director General Integrated Technical Services
- Royal Canadian Mounted Police (RCMP) - **Darren Mierau** - National Manager, Marine Fleet
- Transport Canada (TC) - **Mike Freeman** - Regional Manager, Technical Services
- Public Services and Procurement Canada (PSPC) - **Dave Hatherall** - A/Director General, Marine Services and Small Vessels Sector