



CANADA'S OCEAN SUPERCLUSTER 2023 CORPORATE PLAN



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OUR VISION:

Accelerate solutions to address global ocean opportunities, building a stronger Canadian economy and a healthier planet.

OUR MISSION:

Drive growth of Canada's ocean economy, deliver collaborative solutions, build a strong global ocean brand, connect ocean communities, and build Canada's diverse ocean workforce.

OUR VALUES:

Creativity: continuously introducing new ideas to improve the OSC and member opportunities

Inclusion: valuing and respecting everyone for their talents, skills, abilities and perspectives

Collaboration: working together to achieve outcomes across our team and our networks

Ambition: making a difference in all that we do for our organization, our membership, and our country

OUR OBJECTIVES:

Canada's Ocean Supercluster is changing the way ocean business is done. We are working together across ocean sectors to develop and commercialize globally-relevant solutions to ocean challenges, building a dynamic and regenerative ocean economy that creates new economic growth and job opportunities for Canadians. Our strategy for the next five years focuses on achieving the following four objectives:

Company Growth: Support scaling companies and the commercialization of innovations in key growth areas including the future of ocean transport, scaled ocean energy, ocean climate solutions and sustainable seafood

Talent Attraction and Retention: Attract, train, and retain a larger, more diverse workforce to support ocean economy growth

Connected Ocean Network: Connect ocean communities to create meaningful collaboration opportunities

Global Ocean Brand: Raise awareness of Canada's ocean brand, attracting investment, partners, and workers

5-YEAR CLUSTER OUTCOMES:

Company Growth	Talent Attraction and Retention
<ul style="list-style-type: none"> • \$4.5 billion GDP growth by 2033 • 35,000 jobs by 2033 • Overall industry match: 1.5:1 • Increase in large company investment: 200% • \$300M investment from OSC members • Number of flagship projects: 2 per pillar • Double investments by international participants • \$100M investment in Clean Ocean Fund • 200 new products and services generating 300 IP assets 	<ul style="list-style-type: none"> • 5 new talent programs • 30% increase in gender and 15% underrepresented groups in funded OSC project teams • 50% increase in Indigenous participation

Connected Ocean Network	Global Ocean Brand
<ul style="list-style-type: none"> • 50% increase in OSC membership • 100% increase in Indigenous investments • 10 Indigenous led projects 	<ul style="list-style-type: none"> • 5 global ocean positioning campaigns • 10 articles in key international publications • 4-6 key international event participation

LOOKING BACK: KEY ACTIVITIES IN FISCAL 2022

THROUGHOUT THE YEAR, THE OSC REMAINED FOCUSED IN THE FOLLOWING AREAS:

Expand Collaboration:

- Committed remainder of OSC project funds to projects. We approved 13 additional projects with just over \$19M of commitments from the OSC and total project value of approximately \$45M. We announced 7 projects in 2022.
- On-going working group meetings to discuss projects, project ideas, share ocean community updates and member updates.
- Hosted final half-day CEO forum focused on blue bioeconomy held in collaboration with the Atlantic Canada Opportunities Agency (ACOA).
- Raised awareness of our project activities around the world including:
 - Speaking at over a dozen Canadian conferences across the country. Visited several locations as part of the renewal process including Victoria, Rimouski, Shippigan and St. John's Newfoundland as well as a virtual event.
 - Participation in the United Nations Decade of Ocean launch and the Eureka conference in Portugal in June 2022.
 - Reaching over one and a half million users across our social media channels.
 - Participated in the Ocean Titans docuseries with the World Ocean

Council, our third #Storytotell series, ongoing monthly newsletters, and quarterly updates.

- Hosted the first World Ocean Technology conference with the Economist in October 2022 including a panel with the Prime Minister of Canada.
- Earned media across more than 65 media articles, published joint articles together with other clusters and featured by national media in ocean focused series. International media story published focused on MOU with the European Leaders in Blue Energy, Startup Genome Report Launch, Ocean Titans series launch, and regular articles published in Forbes.

Expand Networks:

- Increased engagement internationally to raise awareness of Canadian capabilities and projects. The OSC presented to global audiences in Portugal, at World Ocean Day in New York, at Oceanology Americas.
- Participated in an aquaculture forum partnered with the Canadian Aquaculture Industry Association to raise awareness of the Canadian economic opportunity in the aquaculture industry.

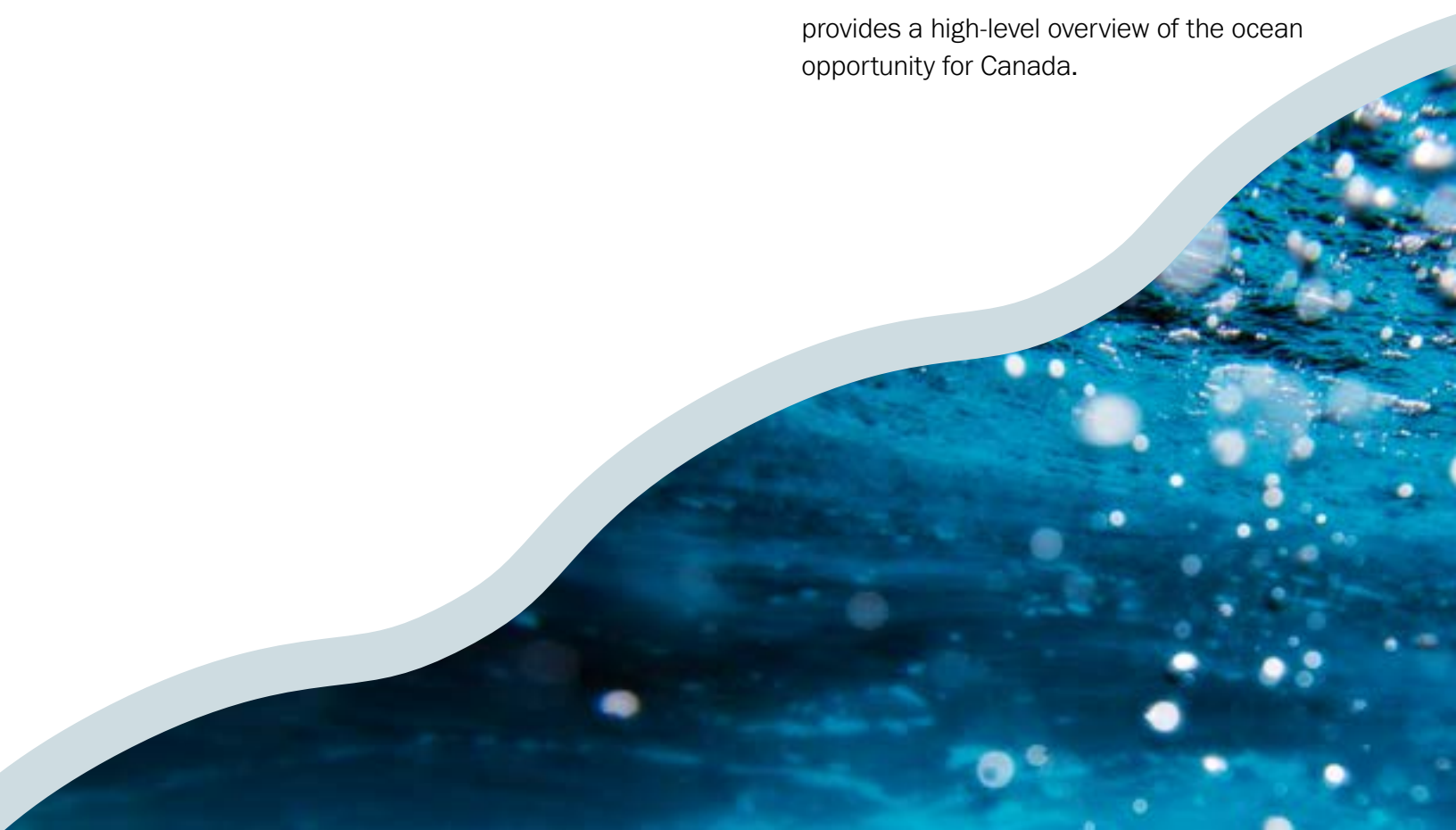
LOOKING BACK: KEY ACTIVITIES IN FISCAL 2022

Expand Networks (Continued)

- Strengthened the network of ocean networks across the country: focused on building the ocean story/brand for the country. We met with ocean associations and hubs across Canada on a regular basis to share updates on activities and available materials.
- Membership increased to over 530.
- Partnered with Startup Genome on their first Blue Tech startup report presented in Portugal in November and ranking 35 ecosystems and on their strengths in supporting startups. Canada had 4 cities in the top 35 with Atlantic Canada ranked 10th in this first edition.

Expand Capacity:

- The OSC hired five co-op students to increase OSC capacity and introduce more students to the opportunities in the ocean economy.
- Continued to build an inclusive ocean economy for Canada. Participated in the Students on Ice's first Ocean Conservation program to increase awareness and information sharing across industry, the arts, students, entrepreneurs, and academics. Held an indigenous ocean forum to increase learnings and partnerships between OSC indigenous and non-indigenous members.
- Artificial intelligence call program launched in February 2023.
- Published "Ambition 2035" a document that provides a high-level overview of the ocean opportunity for Canada.



KEY ACTIVITIES FOR 2023

2023 WILL BUILD ON THE MOMENTUM OF THE FIRST FIVE YEARS WORKING TOWARDS OUR STRATEGIC OBJECTIVES INCLUDING THE FOLLOWING:



Growth:

- Calls focused on artificial intelligence, climate solutions and scaled renewable ocean energy.
- Core program re-launch focused on larger ocean opportunities and generating a pipeline of flagship projects.
- Implementation of recommendations of the OSC's two-eyed seeing project to further encourage commercial engagement of indigenous partners.
- Identify options to establish or support a clean ocean fund for Canada.
- Continue to raise awareness of project activities.



Talent:

- Raise awareness of ocean careers to increase talent attraction including students and workers from other industries.
- Upskill and reskill talent and create opportunities in the ocean economy including further Indigenous Career Pivot Project hires, further opportunities through the Blue Future Pathways Project and the Inclusive Workforce for Arctic Ocean Technology Project.

- Increase measurement of diversity, equity and inclusion with our projects and the broader ocean economy.



Ocean Network:

- Build an increasingly inclusive ocean economy leveraging the data collected through the Ocean Allies Project: continue to look for opportunities for ocean employment for underrepresented groups.
- Continue to strengthen the network of ocean networks across the country: expanding key program participation.
- Establish recommendations for a blue bioeconomy strategy for Canada.
- Further strengthen the pan-Canadian ocean supply chain: continue to create opportunities within our events for businesses to connect and identify new opportunities to work together.



Brand:

- Continue to identify key global speaking opportunities and earned media.
- Build 3 new international partnerships.

DEVELOPING TECHNOLOGY FOR THE FUTURE

COMPANY GROWTH

The OSC will continue to incent and deliver technology projects engaging startups, SMEs, large organizations, Indigenous groups, governments, and research institutions to develop ocean technology solutions towards key growth opportunities through continuous intake, call for proposal, and re-investment programs. Within these investment areas, the OSC will also support startup programs and activities that increase access to capital.

As both a convenor and a catalyst, Canada's Ocean Supercluster will roll-out awareness campaigns around the technology leadership programs available to members and potential members including activities such as digital marketing campaigns, communications vehicles such as the OSC website, member portal, newsletters, social media, and through webinars dedicated to providing information on program details.

Priority Investment Areas

SCALED OCEAN ENERGY

Greening Canada's economy by accelerating renewable ocean energy industries

- Investment in technologies required to strengthen Canada's offshore energy sector
- Act as a catalyst, helping leverage offshore sector competencies and technologies for offshore renewable industries, and solicit bigger players to support sector development
- Help build and strengthen supply chain and cross-border partnerships involving Canadian companies needed to support new energy market entry points

Priority Investment Areas

SUSTAINABLE SEAFOOD

Increasing the provision and security of sustainable food from ocean-based sources

- Investments in real-time environmental monitoring and protection, renewable energy-driven site powering solutions, specialized inspection vehicles, and communication tools in the aquaculture industry
- Invest in digitalization of the seafood supply chain and repatriation of seafood processing activities into Canada
- Invest in emerging technology areas in seafood including genomics, robotics, and underwater communication and imaging to minimize or eliminate bycatch, understand harvesting conditions, reduce search time, and minimize fuel usage

Priority Investment Areas

FUTURE OF OCEAN TRANSPORTATION

Greening Canada's economy and contributing to supply chain resilience by driving marine decarbonization transforming port and vessel efficiency, autonomy, and powering

- Invest in technologies including alternative low-emission fuels, new energy storage solutions, high performing marine coatings, and hybridization technologies to support global transition
- Increase the resiliency of global supply chains through ecosystem-based approaches and investments in new tools that support data-driven decision making
- Support industry's shift towards higher degrees of autonomy through investments in advancements in robotics, surveillance, remote control, and artificial intelligence (AI)
- Invest in advancements in precision weather forecasting, marine communications, and remote digital twins

Priority Investment Areas

OCEAN CLIMATE SOLUTIONS

Greening Canada's economy through the accelerated delivery of innovations that mitigate climate change

- Invest in developing cost-effective, safe solutions for carbon capture and sequestration, carbon monitoring, carbon storage, ocean acidification, and sea level rise
- Invest in ocean bioresource development including viable processes to scale, de-risk and de-cost the production of algae, seaweed and other new and emerging ocean-based resources and ingredients
- Invest in global ocean observation capability through affordable, scalable, connected and high-performing ocean robots and sensing platforms that can deliver greater utility across traditional and emerging applications

ARTIFICIAL INTELLIGENCE

The potential opportunity for AI to generate profound impacts on the future and health and prosperity of the world's ocean is massive; every global opportunity in the ocean economy will be fundamentally influenced by the increasing use of AI in operational decision-making. For Canada to successfully increase the use of AI, a cross-sectional yet pragmatic approach to addressing key barriers is needed. Promoting adoption of AI solutions through practically attainable commercial use cases and approaches that de-risk ocean industries journey will be important to the Canadian ocean company success.

Priority Investment Areas

ARTIFICIAL INTELLIGENCE SOLUTIONS

Artificial intelligence has the opportunity to transform multiple ocean sectors, examples of investment areas include the following:

- Aquaculture and wild harvest
- Monitoring and protecting ocean species and habitats
- Digitalizing ocean energy operations
- Reducing ocean-based emissions and marine decarbonization
- Increasing automation on remote ocean environments

CURRENT PORTFOLIO

In fiscal 2023 the OSC will continue to invest in its existing TL project portfolio. Our original programming areas focused mainly on digital transformation (ocean sensing and characterization, data analysis and visualization, and operational intelligence). The OSC added a program area specifically focused on sustainable ocean solutions in 2020, and as a result many of our digital projects, particularly those focused on remote capability development, ocean health, and automation, also help move companies towards a lower-emission, carbon-neutral future ocean economy.

Program Streams

OCEAN DIGITAL TRANSFORMATION

Existing program streams are focused on developing scalable, innovative solutions to digitize ocean operations, accelerate ocean product development and increase remote and autonomous capabilities, including:

- Develop innovative solutions to lower the costs of ocean data acquisition and sampling, increase the quality and quantity of ocean information, and facilitate data exchange.
- Advance offshore communication, analytical capabilities, and visualization tools to improve operational decision-making in ocean environments.
- Resolve capability gaps that currently limit the degree to which ocean industries are able to work remotely and safely with minimal direct human intervention.

Priority Investment Areas

SUSTAINABLE OCEAN SOLUTIONS

Projects in this stream are focused specifically on the development of new solutions and alternative products that primarily and directly improve the environmental performance of ocean industries and the global competitiveness of Canadian SME companies in emerging sustainability-driven markets, including:

- Commercialization of sustainable ocean-derived and ocean- destined products that develop alternative Canadian supply chains which centre on waste re-utilization and circular economy concepts.
- Initiatives that introduce market-ready, cost-effective alternative sources of ocean energy, propulsion, and marine fuel to domestic and global customers.
- Projects that reduce Greenhouse Gas (GHG) emissions originating from ocean-based activity, such as initiatives that reduce fuel/energy consumption in the context of marine logistics or improve the efficiency of ocean resource harvesting.
- Development of robust, sustainability-driven solutions that meet the needs of remote ocean communities and de-risk arctic operations.



ECOSYSTEM ACTIVITIES

The OSC will continue to bring Canada's ocean innovation ecosystem together, deepening existing partnerships and identifying opportunities for new partnerships across the cluster and beyond. As both a convenor and a catalyst, the cluster will roll-out awareness campaigns around the ecosystem investments and activities available to members and potential members through activities such as digital marketing campaigns, communications vehicles such as the OSC website, member portal, newsletters, social media, and through webinars dedicated to providing information on program specifics. OSC pillars will strengthen the innovation ecosystem and are described below.:

KEY PROJECT AREAS:

Key projects and activities are highlighted below. For a summary of announced projects to date, see Appendix A.

GLOBAL OCEAN BRAND:

Continue to build and evolve the organization's brand story with a focus on connecting to international brands, earning media profile in both Canada and globally, and building international awareness of OSC projects and members, increasing foreign investments and expanded opportunities for Canadian companies in global markets.

1. Global partnerships:

Canada's Ocean Supercluster will continue to establish and deliver on a growing list of strategic partnerships and MOUs with organizations who have common areas of focus and complementary programming and initiatives to the cluster. The OSC plans to explore strategic partnership opportunities amongst cold ocean clusters as well as establish MOUs in the US and other global markets of interest to members. This will support the cluster's ability to expand its

reach, impact and opportunity for members in key markets and provide access to potential new partners, projects and commercial opportunities.

2. Global conferences:

Identify key conferences to raise awareness of Canada's Ambition 2035, the talent opportunities and investment opportunities in Canada's ocean economy.

3. Social media presence:

Create globally relevant content to increase awareness of OSC member activities and build increased interest in Canada.

4. Global brand awareness campaign:

To generate increased brand positioning, reach and impact across Canada and internationally through earned national and international media; innovation showcase events; collaborative thought leadership papers on key areas of focus; and targeted digital campaigns.

TALENT ATTRACTION AND RETENTION:

1. Capacity building: The OSC added strategic focus on increasing awareness of ocean opportunities and building ocean technology skill sets within the ocean economy. The Blue Futures Pathways Project has committed to creating connections with ocean career opportunities for 1,000 youth between the ages of 18 and 30 with over 600 connections already made, focusing on Indigenous youth and under-represented populations.

The purpose of the Ocean Leaders Impact Program (OLIP) was also to address capacity building both mentoring and talent attraction and these projects will be underway in 2023.

- 2. Inclusion:** Committed to building an inclusive ocean economy and all IE projects focus on inclusion, diversity, and Indigenous engagement. The following are examples of projects undertaken by the cluster to date:
- a. Indigenous Career Pivot Project (ICPP): facilitating meaningful career opportunities for midcareer Indigenous peoples interested in entering a new role with an OSC member company to gain experience in an ocean industry. The placements will benefit all participants - both midcareer Indigenous peoples and the participating employers.
 - b. Ocean Allies Project: In 2023, the OSC and Ocean Allies teams are working to develop strategies with project partners to address challenges identified in the Navigating Change report issued in February 2021.
 - c. Inclusive Workforce for Arctic Ocean Technology: working with existing SmartICE

operators to co-design a new curriculum that addresses the social, structural, and geographic barriers to delivering training in remote Inuit communities. The new curriculum will include a focus on improving fundamental literacy, digital literacy, and the essential skills needed to process and interpret data outputs from SmartICE technologies. Overall, the project aims to co-design operator training with Inuit in four communities.

CONNECTED OCEAN NETWORK:

Continue to build an increasingly connected ocean network, working towards one common ocean ambition for Canada and provide a platform all organizations can leverage to support their activities and increase global visibility.

1. CRIOP-DO Project - building upon the successful Critical Intervention and Operability Analysis

(CRIOP) methodology developed in Norway to establish a uniquely Canadian methodology that demonstrates safety and reliability assurance of critical complex digital ocean systems. The project is currently identifying opportunities for ocean digitalization, supporting national regulatory compliance with the development of the new methodology, and focusing strategically on human machine interfaces in normal and abnormal operating scenarios.

2. Canada's Ocean Asset Map - the aim of Asset Map 2.0 is to increase the number of listings claimed, improve the quality of listings, enhance the overall user experience, and offer a French version of the existing map and database

(www.canadasoceanassets.ca).

Such enhancements will increase interconnectedness between ocean companies and other key players in Canada's ocean ecosystem and raise awareness around the existing and anticipated opportunity for inclusive and rewarding engagement afforded therein.

3. Two-eyed seeing project - Indigenous Engagement is identified as building block of the OSC foundational structure. Even prior to its formalization, the OSC began discussions with Indigenous groups on potential collaborative efforts that would shape meaningful activities. This has been formalized in an Indigenous Engagement Strategy and accomplished through specific initiatives and measures. Opportunity exists to reshape engagement to an Indigenous-led model to encourage greater project participation and capitalize on greater knowledge exchange. This project would undertake initiatives to provide Indigenous communities to identify their own goals and objectives for engagement and participation with the OSC and identify possible knowledge exchange opportunities and mechanisms.

i. Two-eyed seeing definition: Using multiple perspectives to find balanced approach to different views that often clash. Using the Indigenous perspective that is rooted in relationships (to mother earth and to each other) and using the western perspective that rooted in science and technology.

4. Member portal - increase targeted matchmaking between ocean firms to support idea development and continue to bring focused groups of leaders together to build action plans.

5. Ambition 2035 event -first OSC in-person event in almost four years to be held in Ottawa in May 2023 to discuss Canada's ocean opportunity, new project ideas, connect new members and identify new ways of doing business to achieve Canada's \$220B ambition for the ocean economy.

6. OSC Working Groups - the OSC has several working groups that meet throughout the year. These working groups will be reconstituted in 2023 to support OSC activities going forward.

OVERALL OSC PROGRAM MANAGEMENT

Program management includes organizational support for strategy, finance, administration, member engagement, communications and management. Key organizational activities in 2023 include:

- Supporting the OSC staff throughout multiple cities across Canada;
- Continuing to engage nationally and internationally through key conferences, collaborations, and meeting opportunities;
- Leveraging and enhancing technology to support OSC activities including related processes around data management, reporting security and our member engagement portal; and

- Continuing to expand communications to support all OSC activities including our social media presence, engaging with traditional media, increased keynote speaking opportunities both in Canada and internationally, and leveraging our OSC website and member portal.

CORPORATE STRUCTURE AND FINANCIALS

Canada's Ocean Supercluster is a not-for-profit established in 2018. We currently have 15 Board members and in addition our CEO is an ex-officio Board member. Canada's Ocean Supercluster does not owe any amount to the Crown pursuant to any legislation or agreement.

FINANCIAL FORECAST (IN MILLIONS)

EXPENDITURES					
	TECHNOLOGY LEADERSHIP PROGRAM	INNOVATION ECOSYSTEM PROGRAM	PROGRAM MANAGEMENT	TOTAL	
FUNDING SOURCES	INNOVATION SUPERCLUSTER INITIATIVE	\$53M	\$2.5M	\$3.7M	\$59.2M
	GLOBAL INNOVATION CLUSTER	\$2M	\$0.1M	\$0.4M	\$2.5M
	PCAIS	\$1.5M	\$0.1M	\$0.5M	\$2.1M
	INDUSTRY	\$88.5M	\$0.1M	\$1.5M	\$90.1M
	INTEREST INCOME + OTHER	-	-	\$0.1M	\$0.1M
	TOTAL	\$145M	\$2.8M	\$6.2M	\$153.9M

CASH FLOWS FROM CLUSTER ACTIVITIES	
INCOMING	TOTAL
INNOVATION SUPERCLUSTERS INITIATIVE (ISI) CONTRIBUTION	\$59.2M
PAN-CANADIAN AI STRATEGY CONTRIBUTION	\$2M
MEMBER & REGISTRATION FEES	\$2.5M
INTEREST INCOME	\$0.1M
TOTAL ITEMS INVOLVING CASH	\$63.8M
AMORTIZATION OF PROPERTY, PLANT AND EQUIPMENT	\$0.2M
TOTAL ITEMS NOT INVOLVING CASH	\$0.2M
TOTAL ANNUAL CASHFLOW	\$63.82M

PROGRAM				
OTHER SOURCES OF REVENUE	ISI	GIC	PCAIS	TOTAL
INDUSTRY CONTRIBUTION TOWARDS ELIGIBLE PROJECT COSTS	\$1.5M	\$0.1M	\$0.5M	\$2.1M
INDUSTRY CONTRIBUTION TOWARDS INNOVATION ECOSYSTEM & PROGRAM MANAGEMENT	\$88.5M	\$0.1M	\$1.5M	\$90.1M
INDUSTRY CONTRIBUTION TOWARDS ELIGIBLE PROJECT COSTS	-	-	\$0.1M	\$0.1M
TOTAL	\$90M	\$0.2M	\$2.1M	\$92.3M

PROGRAM				
INDUSTRY MATCHING FUNDS	ISI	GIC	PCAIS	TOTAL
INDUSTRY CONTRIBUTION TOWARDS ELIGIBLE PROJECT COSTS	\$85M	\$2M	\$1.5M	\$88.5M
INDUSTRY CONTRIBUTION TOWARDS INNOVATION ECOSYSTEM & PROGRAM MANAGEMENT	\$7M	\$0.2M	\$0.2M	\$7.4M
TOTAL	\$92M	\$2.2M	\$1.7M	\$95.9M

KEY OUTCOMES FOR FISCAL 2023

To monitor our performance and progress against the Corporate Plan and 5-year strategy, all projects will be required to provide status updates at minimum on a quarterly basis. These monitoring strategies will include receiving and reviewing financial information and metrics reporting as well as evaluating progress against both qualitative and quantitative project objectives. Planned activities for 2023 are included below:

Shared Challenges	5-Year Plan Objectives	Planned Outcomes 2023
Company Growth	<ul style="list-style-type: none"> • \$4.5 billion GDP growth by 2033 • 35,000 jobs by 2033 • Overall industry match: 1.5:1 • Increase in large company investment: 200% • \$300M investment from OSC members • Number of flagship projects: per pillar • Double investments by international participants • \$100M investment in Clean Ocean Fund • 200 new products and services generating 300 IP assets 	<ul style="list-style-type: none"> • Funded projects deliver commercial outcomes. • Initial funding for clean ocean fund. • Commit \$50M OSC funds to new projects. • Two flagship projects identified. • Directly support startups via the Ocean Startup Challenge.
Talent Attraction + Retention	<ul style="list-style-type: none"> • 5 new talent programs • 30% increase in gender and 15% underrepresented groups in funded OSC project teams • 50% increase in Indigenous participation 	<ul style="list-style-type: none"> • Deliver projects in progress. • Continue to create opportunities for underrepresented groups through Blue Futures Pathways, Ocean Allies and ICPP. • Two new talent programs initiated • Increase project expectations for diversity, equity and inclusion.

Shared Challenges	5-Year Plan Objectives	Planned Outcomes 2023
Connected Ocean Networks	<ul style="list-style-type: none"> • 50% increase in OSC membership • 100% increase in Indigenous investments • 10 Indigenous led projects 	<ul style="list-style-type: none"> • 600 members by the end of 2023. • At least one indigenous led project.
Global Ocean Brand	<ul style="list-style-type: none"> • 5 global ocean positioning campaigns • 10 articles in key international publications • 4-6 key international event participation 	<ul style="list-style-type: none"> • First global ocean positioning campaign completed. • Two international publications . • Two international events.

INTELLECTUAL PROPERTY AND DATA STRATEGIES

Intellectual Property (IP) Strategy

The OSC will continue to work with stakeholders to better understand their needs and explore opportunities related to IP management and commercialization in the ocean sector. A key observation from stakeholder consultations during OSC 1.0 is the ongoing need for organizations, particularly SMEs, to have access to tools, education opportunities and expertise to support their understanding and development of an IP management strategy. The initiatives summarized below describe actions that the OSC has undertaken and will continue to execute on in OSC 2.0 to support the Canadian ocean ecosystem in the creation, protection, and commercialization of IP assets with the ultimate goal of driving greater value creation from project Foreground IP.

In January 2023, the OSC hired a Director of Intellectual Property (IP) and Data Management who will be dedicated to overall management and execution of the OSC's IP Strategy. Since joining the OSC, the Director of IP and Data Management has provided strategic IP advice and counsel to OSC 1.0 projects during the project close out phase. This increased one-on-one support has resulted in greater clarity and more accurate documentation of Foreground IP developed as a result of project activities.

IP Rationales (Project Proposals) and IP Schedules (Project Agreements)

As in previous fiscal years 2021 and 2022, all project consortiums applying for OSC support through the core Technology Leadership (TL) stream or in response to specific targeted

calls will be required to develop and outline an IP Strategy or IP Rationale for their project, which is to be included with all Project Proposal submissions for evaluation by the Director of IP and Data Management. The Director of IP and Data Management will also be available to provide direct support to project consortiums in the development of their IP Rationales during the Project Proposal development stage. The IP Rationale development process requires that project partners contemplate Background IP, expected Foreground IP and potential commercialization strategy. Engaging in the development of a sound IP Rationale for their project will provide project participants with a basic framework for IP strategy development that may be applied to subsequent internal or collaborative technology development projects. If a TL project is approved by the OSC, the IP Rationale submitted with the Project Proposal is generally formalized into an IP Schedule that is part of the executed Project Agreement. An enhanced strategy is being implemented for OSC 2.0, where the Director of IP and Data Management will revisit the IP Rationale/IP Schedule at various touch points with individual project teams as projects advance through their term (e.g., during project kick-off meetings, quarterly progress reporting, Steering Committee meetings, project close-out orientation sessions). This will facilitate closer tracking of the development of expected Foreground IP assets during project execution. The goal of this enhanced strategy is to alleviate the burden on project teams and the OSC itself to account for and report on all Foreground IP assets during the project close-

out phase for subsequent entry into the IP Registry.

Overall, there are no substantive changes planned for the OSC's core IP strategy in FY2023. The OSC, however, plans to explore opportunities to realize further exploitation of Foreground IP assets housed in the IP Registry in collaboration with project participants and other stakeholders as well as in consultation with ISED and the other global innovation clusters. The goal is to develop an IP commercialization strategy to drive value creation for Foreground IP beyond project activities.

IP Registry

The OSC has established an IP Registry to serve as a marketplace for IP created by Canada's ocean sector. The IP Registry is accessible to all OSC Members via the online Member portal and is a platform for cataloguing IP assets developed as a result of Project activities. The publishing of IP assets in the IP Registry enables their visibility and discoverability to the broader OSC Membership and provides a mechanism by which OSC Members may identify potential collaboration and licensing opportunities thereby driving greater value creation beyond project activities. The IP Registry is also available to academic and research institutes as a platform to build greater awareness around latent and emerging IP in the ocean sector that is available for license.

OSC's IP Registry launched in 2021, and an overview of the objectives of the IP Registry and the nature of information to be housed within it was shared with OSC members as part of a Technology Leadership Working

Group (TLWG) meeting. In FY2023, the OSC intends to conduct an updated orientation session on the IP Registry as part of another TLWG meeting to serve as a refresher and for the benefit of Members who may not have been in attendance at the previous IP Registry orientation (e.g., new Members).

IP Education and Training

Stakeholder consultations across all global innovation clusters have indicated that cluster Members cannot easily access targeted and effective opportunities to better understand how to protect and leverage their IP. In past years, the OSC initiated a series of IP workshops with presentations by subject matter experts on issues related to collaborative Research and Development (R&D) projects to discuss key IP considerations and provide an opportunity for Members and other regional stakeholders to ask questions related to their: technology development efforts in the context of OSC projects. These workshops formed a part of OSC's IP strategy to increase awareness of IP related topics amongst its Membership, especially for SM Es who are less likely to have dedicated in-house IP resources.

As part of OSC 2.0, the OSC will continue to diversify the type of training offered to members to ensure that training addresses specific risks facing organizations active across the value chain. For OSC members that may face challenges in selecting cost-effective service providers when pursuing IP protection activities (e.g., filing of patents and/or trademarks, NDA development and preparation, drafting of research and collaboration agreements etc.), the OSC will offer guidance and assistance for connecting members with prospective service providers.

In FY2023, the OSC will continue to build and expand upon the IP strategy as follows:

The Director of Intellectual Property will continue to advise the OSC and its member organizations, particularly SMEs, on best practices related to IP protection as well as provide direct guidance and support to project consortiums in developing IP Rationales for core TL projects as well as targeted calls (e.g., PCAIS, Energy, Seafood, Ocean Tech, Marine Transport).

- IP Rationales will continue to be a requirement for all TL Project Proposals; the evaluation process for projects will consider the information contained in the IP Rationale as part of the Project selection process for core TL projects as well as projects related to targeted calls ; the OSC will help to identify and maximize the opportunities to develop, protect, commercialize, and share IP.
- The Director of IP will continue to participate in the global innovation clusters' IP peer group that, among other initiatives, aims to collaboratively develop IP-related metrics in co-operation with ISED and to explore ways to leverage each cluster's IP Registry.
- The OSC will continue to identify Foreground IP emerging from TL projects and populate the IP Registry. With the close-out of a substantial number of TL projects expected in the coming year, the OSC expects to build the number of entries published in its IP Registry allowing members to explore opportunities to request and negotiate licenses to use Foreground IP, subject to relevant competitive issues.
- As a new initiative, the OSC will also strive to identify and execute additional strategies for Members to benefit from the visibility and access provided by the IP Registry.

Data Strategy

Every TL Project Proposal is required to articulate how the project will increase data exchange and facilitate data-driven collaboration among OSC members and the broader ocean ecosystem and deliver a long-term positive impact to Canada's ocean data network. This strategy has increased the amount of data assets that have been identified and committed as shareable with stakeholder groups beyond the project consortium. Effort is underway to design and develop a Data Registry for simplistic entry and access for all members and promote its successful adoption by industry.

Data Plan and Registry

With the recent addition of a dedicated Director of Intellectual Property and Data Management, the OSC is well positioned to put an increased emphasis on data collection and usage, particularly data assets resulting from new AI ocean-related projects associated with the recent PCAIS call for proposals. Building on the success of the IP Registry, a new OSC project-specific Data Registry will be developed to provide project consortiums with a dedicated platform for the recording and sharing of data assets derived as a result of project activities. Similar to the IP Registry in scope and functionality, the goal of establishing and maintaining an internal OSC-specific Data Registry is to leverage the visibility and access it provides to stimulate further commercialization and future collaboration opportunities amongst OSC Members to drive value creation beyond project activities.

With the recently launched AI Ocean call (PCAIS), Project Proposal templates have been

updated to include a Data Plan section for project consortiums to document existing data assets that are anticipated to be used in projects as well as the data assets that are expected to be generated as a result of project activities.

In FY2023, the OSC will continue to build and expand upon the Data Strategy as follows:

- Establish and maintain a dedicated OSC-specific Data Registry aligned in scope and functionality with the IP Registry to provide visibility and discoverability of data assets generated as a result of project activities.
- Work with CIOOS to build a new community AI project, resulting in incremental data training to be shared with the OSC community.
- Facilitate digital collaboration among OSC Members, as well as between the OSC and the broader ocean ecosystem, to foster innovation in a manner that maximizes return on investment, both for Members and Canada as a whole.
- Leverage the unique opportunity to use its strategic position as a connectivity network across ocean sectors to encourage and facilitate data exchange and collaboration aimed at driving industrial growth that delivers a long-term positive impact to Canada.
- Facilitate the hosting of ocean data-specific events with other ocean sector community members.
- Support the hosting of and co-promotion of data-specific webinars with the other global innovation clusters to explore and promulgate best practices in data asset management among each cluster's Membership.
- Ensure all OSC operational data is appropriately protected including user access, change management, data classification and compliance with all data privacy requirements.



RISK MANAGEMENT

The OSC has developed focused approaches to address the risks to the implementation of its 2023 Corporate Plan. The following risks and mitigation strategies have been identified for fiscal 2023:

Risk	Mitigation Strategy
<p>Project Outcomes: ability of projects to achieve desired outcomes</p>	<ul style="list-style-type: none"> • Reporting - Ensuring robust project reporting • Project Management and Monitoring <ul style="list-style-type: none"> • OSC has a seat on all project steering committees which meet regularly to monitor project success • OSC is able to leverage the claims for reimbursement that are submitted to the OSC by project teams for insight into project spend/progress against project outcomes, deliverables and milestones
<p>Project Disbursements: ability of the projects to spend as planned and as a result, ability for OSC to meet our annual disbursement targets</p>	<ul style="list-style-type: none"> • Proposal templates have been enhanced to provide greater clarity in project design and activity prior to the start of the contracting process. This increased clarity during the proposal stage should reduce the time required for contracting and improve clarity of project responsibilities and outcomes. • Project Monitoring and Project Forecasting - actively working to monitor project spending and changes to project forecasting so that any potential issue is identified as far in advance as possible • Project compliance - supporting project participants in submitting claims for reimbursement or reconciliation and progress reporting in a timely manner and within stated deadlines • Project advances - provide project advances to help projects initiate activity quickly and to help SMEs manage project cash flow • In cases where we have underspent funding, we will redirect such funding towards other projects.
<p>Talent: retaining high-quality talent is key to the OSC's ability to meet its targets</p>	<ul style="list-style-type: none"> • Culture - a culture linked to the OSC's values • Employee engagement and talent management - creating meaningful and purposeful work and career paths • Reward and compensation: flexibility and recognition • Performance management process

Risk	Mitigation Strategy
<p>Data Protection: ensure member and personnel data is protected</p>	<ul style="list-style-type: none"> • Third party service provider supporting OSC systems • Regular training on cybersecurity topics to maintain user awareness • Implementing third party cyber review recommendations
<p>Political Risk: increasing awareness of the ocean opportunity to generate increasing investment for the ocean economy</p>	<ul style="list-style-type: none"> • Regular and proactive communication with federal and provincial elected officials and administration • Regular communication with members and investors on the progress of OSC activities

EQUITY, DIVERSITY, AND INCLUSION

Canada's Ocean Supercluster is committed to promoting equity, diversity, and inclusion in the ocean economy. We work with a Board of Directors, employees and members who bring diverse backgrounds, experiences, abilities, gender, and race. The Ocean Supercluster condemns all forms of violence, discrimination, racism, harassment, and xenophobia. Hate and violence of any kind are not tolerated by the organization. Recognizing that prioritizing equity, diversity and inclusion is a journey, we know that having diverse perspectives at decision tables is how organizations can better mitigate risk and design more effective strategies.

Since Canada's Ocean Supercluster became operational, it has strategically invested in key initiatives to promote equity, diversity, and inclusion in Canada's ocean economy including:

- The Ocean Allies Project which strives to help the ocean sector take concrete steps towards a more richly diverse and inclusive ecosystem
- The OSC's Indigenous Engagement strategy, Indigenous working group and targeted outreach activities lead by our Indigenous Engagement Lead.
- Indigenous Career Pivot Project, designed to benefit both Indigenous peoples and Ocean Supercluster member employers. The project objectives include creating a culturally safe and supported environment for Indigenous peoples, enhancing the cultural competencies of the participating workplaces, providing participating workplaces with valuable new talent attraction and retention tools, and contributing to Canada's Reconciliation with Indigenous peoples.
- The Blue Future Pathways Project designed to encourage Canadian youth aged 18-30 with a particular focus on Indigenous peoples and under-represented groups to consider a career in ocean.
- An Inclusive Workforce for Arctic Ocean Technology Project developing a culturally contextualized training model for Inuit youth operating SmartICE technology.
- A literature review on Traditional Ecological Knowledge and the potential confluence with ocean observing systems.

In 2020 the OSC also became an early participant and supporter of the Government of Canada's 50/30 Challenge along with more than twelve thousand other Canadian organizations. In 2023-24 the OSC has been working towards these challenges with strong diversity across the team.

APPENDIX A: CURRENT ANNOUNCED PROJECTS

Technology Leadership Projects:

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Ocean Vision</p> <p>\$20M</p>	<p>Development of new underwater technologies and products that will support Robotics-as-a-service and predictive analytics business models</p> <p>https://www.oceansupercluster.ca/canadas-ocean-supercluster-osc-stakeholders-announce-exciting-milestone/</p>	<ul style="list-style-type: none"> • Kraken Robotics • Energy Research and innovation Newfoundland and Labrador (ERINL) • Nunavut Fisheries 	<p>Announced: June 28,2019</p> <p>Successful prototype testing of new sensor and system development, including the ThunderFish®, Multi-Spectral SAS, SeaVision®, and Launch and Recovery Systems.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Ocean Aware</p> <p>\$29M</p>	<p>Subsea monitoring of fish health, fish movement, and environment</p> <p>https://www.oceansupercluster.ca/project/canadas-ocean-supercluster-announces-29m-ocean-aware-project/</p>	<ul style="list-style-type: none"> • Innovasea • Irving Shipbuilding • Emera • Nova Scotia Power • Xeos Technology • Dartmouth Ocean Technologies • Memorial University of Newfoundland and Labrador • Dalhousie University • Department of Fisheries and Oceans Canada • Ocean Tracking Network 	<p>Announced:, July 28, 2020</p> <p>Equipment deployment and data collection completed, and data is currently being collected and fed into the algorithm for testing.</p> <p>The first chlorophyll fluorescence prototype was developed.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Ocean DNA System</p> <p>\$4.9M</p>	<p>DNA assessment, monitoring and characterization of the ocean</p> <p>https://www.oceansupercluster.ca/project/canadas-ocean-supercluster-announces-4-9m-oceandna-system/</p>	<ul style="list-style-type: none"> • eDNATec • Department of Fisheries and Oceans Canada • PRNL • Nunavut Fisheries Association 	<p>Announced: Sept 24, 2020</p> <p>Closing.</p>
<p>Smart Protective Coatings</p> <p>\$4.6M</p>	<p>Development of revolutionary graphene-based protective coating products for vessels</p> <p>https://oceansupercluster.ca/protective-coatings-project/</p>	<ul style="list-style-type: none"> • Graphite Innovation and Technologies • Horizon Maritime Ltd • Mitacs 	<p>Announced: Nov 19, 2020</p> <p>Development of production capacity necessary to manufacture the coatings in quantities necessary to support the OSC project underway.</p> <p>Prototype 'proved for commercial vessels, field trials are running, data is being collected and performance measurements are driving further R&D</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
Colab Enterprise \$2.8M	Enterprise-ready review and engineering communication platform https://www.oceansupercluster.ca/colab-enterprise-project/	<ul style="list-style-type: none"> • Colab • PRNL • Kraken • Genoa 	Announced: Nov13, 2020 Closing.
Marine SAR Helicopter Mission Simulation \$2.1M	New hoist simulator training for search and rescue operators https://oceansupercluster.ca/marine-sar-program	<ul style="list-style-type: none"> • Bluedrop Training and Simulation • Cougar Helicopters • Marine Institute of Memorial University of Newfoundland 	Announced: Nov13, 2020 Closing.
XO-G2 \$3.4M	Next generation uncrewed service vessel – faster, deeper and further offshore https://www.oceansupercluster.ca/xocean-xo-g2-project/	<ul style="list-style-type: none"> • XOcean • ABCO • DMR Boat Design • Ocean Floor Geophysics • Fisheries and Ocean Canada 	Announced: Nov 19, 2020 Closing.

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>CARIS Cloud Technology</p> <p>\$2.1M</p>	<p>Reduce the need for software operators in the field and enable increased processing and quality control from an office or home setting</p> <p>https://www.oceansupercluster.ca/caris-cloud-technology-project/</p>	<ul style="list-style-type: none"> • Teledyne CARIS • Ocean Floor Geophysics (OFG) • Fisheries and Marine Institute of Memorial University of Newfoundland • University of New Brunswick Ocean Mapping Group • CIDCO • H2 	<p>Announced: Nov 20, 2020</p> <p>Closing</p>
<p>Rutter Internet of Things</p> <p>\$3.1M</p>	<p>Remote monitoring as a managed service with specialty radar system data acquisition, and cloud-based storage and analytics</p> <p>https://www.oceansupercluster.ca/project/canadas-ocean-supercluster-announces-3-1m-rutter-iot-project/</p>	<ul style="list-style-type: none"> • Rutter Inc • Husky Energy • NRC • Governemnt of Newfoundland and Labrador 	<p>Announced: Dec 10, 2020</p> <p>The AI tracker was refined by adding new representative training and test data and was successful in tracking vessel targets in all data tested. The new data was selected for its challenging scenarios including a large number of vessels, and, ocean clutter, and false multipath targets.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Digital Ship In-Service Support</p> <p>\$2M</p>	<p>Advanced technology platform to help vessel designers, builders, operators and maintainers more efficiently manage vessel lifecycle</p> <p>https://www.oceansupercluster.ca/project/digital-ship-in-service-support-project/</p>	<ul style="list-style-type: none"> • Seaspan Shipyards • Genoa Design 	<p>Announced: Dec 14, 2020</p> <p>Physical renovations for Seaspan Holoship Visualization Facility have been completed.</p>
<p>Tallybot: Artificial Intelligence for Next Generation Seafood Processing</p> <p>\$842K</p>	<p>Next generation of seafood processing powered by traceability and production software focused on improved efficiency and quality</p> <p>https://oceansupercluster.ca/project/tallybot-project-artificial-intelligence-for-next-generation-seafood-processing/</p>	<ul style="list-style-type: none"> • ThisFish Inc. • Orca Specialty Food • Hardy Buoys Smoke Fish Ltd • McGill University • York University • Eurofish 	<p>Announced: Dec 17, 2020</p> <p>Closing.</p>
<p>Automated Pipeline Payload for Small AUVs</p> <p>\$1.7M</p>	<p>Development of a commercially ready small AUV payload, for immediate adoption by inspection companies to improve their capability and cost efficiency</p> <p>https://oceansupercluster.ca/project/automated-pipeline-payload-for-small-auvs-project/</p>	<ul style="list-style-type: none"> • 2G Robotics • Ocean Floor Geophysics EIVA • EIVA • L3Harris OceanServer • Ocean Infinity 	<p>Announced: Dec 17, 2020</p> <p>Closing.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Ocean Energy Smart Grid Integration</p> <p>\$975K</p>	<p>Solutions to help reduce the dependence of diesel power generation in rural communities and increase the opportunity for use of renewable source of energy</p> <p>https://oceansupercluster.ca/project/ocean-energy-smart-grid-integration-project/</p>	<ul style="list-style-type: none"> • BMT • Sustainable Marine • University of Victoria • Rainhouse • Turtle Island Innovation 	<p>Announced: Dec 17, 2020</p> <p>Closing.</p>
<p>Miniaturized Sonar Transducers</p> <p>\$907K</p>	<p>Creation of a customized, miniaturized piezocomposite transducer direct to uncrewed platform developers</p> <p>https://www.oceansupercluster.ca/project/miniaturized-sonar-transducer-project/</p>	<ul style="list-style-type: none"> • Sensor Technologies • NorthEastern Micro • Kraken Robotic Systems • Dr. Christopher Purcell 	<p>Announced: Dec 10, 2020</p> <p>Five partial assemblies were manufactured at facilities in NS. These assemblies are a fractional component of the full transducer that is planned to be manufactured.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Digital Offshore Canada</p> <p>\$18M</p>	<p>A platform for the development, validation and commercialization of digital twins for a range of applications in Canada’s offshore as well as for other ocean industries</p> <p>https://oceansupercluster.ca/project/digital-offshore-canada-zones-extracotieres-numerique-du-canada/</p>	<ul style="list-style-type: none"> • ERINL • Hatch Ltd • MNP • Virtual Marine • GRI Simulations • Memorial University 	<p>Announced: Dec 18, 2020</p> <p>Management plan complete. Platform vision and strategy completed and issued.</p>
<p>Project ORCA</p> <p>\$4.3M</p>	<p>Devlop Katal Green Fuel ahead of commercialization to reduce dependency on diesel and transition to low-carbon fuels.</p> <p>https://oceansupercluster.ca/project/project-orca-projet-orca/</p>	<ul style="list-style-type: none"> • Katal Energy • Valent Low Carbon Technologies • Horizon Maritime • Southern Alberta Institute of Technology • Mitacs • Deepsense • Spearhead 	<p>Announced: Feb 17, 2020</p> <p>Closing.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Advanced Smart Integrated Sensors</p> <p>\$3.6M</p>	<p>Bringing state-of-the-art ocean environmental monitoring sensors into the ocean's autonomous platforms.</p> <p>https://oceansupercluster.ca/project/rbr-advancing-smart-integrated-ocean-sensors/</p>	<ul style="list-style-type: none"> • RBR • Dahousie University • Fisheries and Oceans Canada 	<p>Announced: Feb 17, 2020</p> <p>Modelled several alternative optical placements and performed ray-traces in Solidworks to validate the different approaches. Several prototype geometries were designed and manufactured, then tested on their optical bench to verify simulation results.</p>
<p>Field Validation Energy Storage System</p> <p>\$4.2M</p>	<p>Developing an energy-dense multi-megawatt hour battery-based to introduce to marine industries.</p> <p>https://oceansupercluster.ca/project/corvus-field-validation-of-energy-storage-system-project/</p>	<ul style="list-style-type: none"> • Corvus Energy • Seaspan Ferries • VARD Marine • BC Hydro • UBC 	<p>Announced: Feb 17, 2020</p> <p>Completed the installation and commissioning of production line equipment for the Energy Storage System (ESS) and Pack Controllers (PC).</p> <p>Built first units, which underwent R&D testing.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Integrated Operations And Real-Time Analytics</p> <p>\$27M</p>	<p>IORTA will bridge gaps between land, sea-based, and processing operations that exist in the aquaculture industry today by providing real-time information, analytics and environmental connectivity to improve overall operations.</p> <p>https://oceansupercluster.ca/integrated-operation-and-real-time-analytics-project/</p>	<ul style="list-style-type: none"> • Grieg Seafood Newfoundland • Innovasea • SubC Imaging • AKVA Group • High-Tech Communications 	<p>Announced: Feb 25, 2020</p> <p>Site visits completed to confirm feasible tower locations. Machine vision development and equipment testing onsite underway.</p>
<p>Port Integration and Enhancement of Data</p> <p>\$3.2M</p>	<p>Develop technology to enhance the ability to collect ocean data and facilitate more effective and efficient ocean operations</p> <p>https://oceansupercluster.ca/port-integration-and-enhancement-of-data-project/</p>	<ul style="list-style-type: none"> • Bluenode • Halifax Port Authority • Saab • NRC 	<p>Announced: Mar 24, 2021</p> <p>Closing.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Autonomous COMPASS</p> <p>\$3M</p>	<p>Develop a portable, embedded passive acoustic capability which will allow the data to be collected and analyzed in-real time, onboard an untethered autonomous underwater vehicles.</p> <p>https://www.oceansupercluster.ca/project/canadas-ocean-supercluster-announces-3-1m-rutter-iot-project/</p>	<ul style="list-style-type: none"> • Sensor Tech • Kraken Robotics Systems • 3D Wave Design 	<p>Announced: Mar 24, 2020</p> <p>Piezoceramic formulation selection is completed.</p>
<p>Fishless Marine Microbial Fish Oil Project</p> <p>\$3.5M</p>	<p>Develop an algal nutritional oil that fully mimics and complements the health benefits of fish oil consumption.</p> <p>https://oceansupercluster.ca/fishless-marine-microbial-fish-oil-project/</p>	<ul style="list-style-type: none"> • Mara • Acadia University • Algorithm Ingredients • Nature’s Way of Canada 	<p>Announced: Mar 24, 2020</p> <p>Strain improvement testing underway. Completed the optimization of mutagenesis.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Mobile And Mixed Reality Virtual Technology and Maintenance Software Project</p> <p>\$2.2M</p>	<p>An Integrated service-hub called “Tech Companion” that centralizes data in a remotely accessible, intelligent, and automated digital ecosystem for use in ocean industries.</p> <p>https://oceansupercluster.ca/modest-tree-mobile-and-mixed-reality-virtual-technician-and-maintenance-software-project/</p>	<ul style="list-style-type: none"> • Modest Tree • RENK • Microsoft Canada • Mitacs 	<p>Announced: May 03, 2021</p> <p>Closing</p>
<p>Sustainable Protein for Aquaculture Project</p> <p>\$6M</p>	<p>Conversion of greenhouse gas emissions from upstream oil and gas in the development of a high-value protein product to feed farmed fish.</p> <p>https://oceansupercluster.ca/denova-sustainable-protein-for-aquaculture-project/</p>	<ul style="list-style-type: none"> • Denova • The Center for Aquaculture Technologies Canada • Natural Products Canada • Dalhousie University • NRC • ACOA • Cooke Aquaculture 	<p>Announced: May 03, 2021</p> <p>Breakthroughs achieved on fermentation process ramp up, specifically relating to methanol concentration and dilution rate optimization.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Split Pm Hybrid Propulsion Motor Project</p> <p>\$1.8M</p>	<p>Hybrid diesel-electric system making the hybridization of existing vessels more affordable while also reducing carbon footprint.</p> <p>https://oceansupercluster.ca/hybrid-propulsion-motor-project/</p>	<ul style="list-style-type: none"> • DuXion • Aspin Kemp & Associates 	<p>Announced: May 03, 2021</p> <p>Closing.</p>
<p>Unmanned Digital Twinning Project</p> <p>\$592K</p>	<p>Digital twinning of underwater infrastructures without the need for external specialists working in remote offshore locations.</p> <p>https://oceansupercluster.ca/unmanned-digital-twinning-project/</p>	<ul style="list-style-type: none"> • Welaptega Marine • Whitecap Scientific • SubC Imaging • Nova Scotia Community College SEATAC division 	<p>Announced: May 03, 2021</p> <p>Hardware integration, software and algorithmic development almost completed with real world trials set to start.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Marine Safety Training Online Project</p> <p>\$1.8M</p>	<p>Mixed-reality safety training system using desktop simulators, software, and online digital content that will expand the opportunities for marine training on land</p> <p>https://oceansupercluster.ca/mstonline-project/</p>	<ul style="list-style-type: none"> • Virtual Marine • Survival Systems Training Limited • Memorial University of Newfoundland 	<p>Announced: June 18, 2021</p> <p>Building and setup of the outline server is underway and on schedule</p>
<p>Bridgevue Project</p> <p>\$420K</p>	<p>Vessel System using augmented reality (AR) and navigational data to enhance marine navigation, providing vessel crew with the capability to overlay mission-critical information in real-time, regardless of visibility</p> <p>https://oceansupercluster.ca/bridgevue-project/</p>	<ul style="list-style-type: none"> • Engage Creative Technologies • Mitacs • Fisheries and Marine Institute of Memorial University of Newfoundland and Labrador • ERINL • Rutter • Robot Interactive+ Marketing 	<p>Announced: June 10, 2021</p> <p>Closing.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Real-Time Bubble Diffuser Aeration Entrainment Monitor Project</p> <p>\$500K</p>	<p>Real-time entrainment monitoring system for aquaculture fish farms in complex coastal ocean environments reducing overall greenhouse gas emissions and the fish mortality from high surface temperature and harmful algal blooms</p> <p>https://oceansupercluster.ca/real-time-bubble-diffuser-aeration-entrainment-monitor-project/</p>	<ul style="list-style-type: none"> • ASL Environmental • MOWI Canada West 	<p>Announced: June 10, 2021</p> <p>Sensors for pilot are underway, with modifications coming out of early testing. Project is preparing for more field testing. .</p>
<p>Hydrospark Project</p> <p>\$850K</p>	<p>Ocean data and collaboration application to visualize underwater environments in 3D mixed reality to support training, mission planning and rehearsal, and support defense and other marine sector underwater operations</p> <p>https://oceansupercluster.ca/hydrospark-project/</p>	<ul style="list-style-type: none"> • Kognitiv Spark • Kraken Robotics • UNB • NBCC 	<p>Announced: June 10, 2021</p> <p>The design phase is complete. Work underway towards the integration of Ocean Data sets as identifiable Data Modules for integration into the platform.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
GeoScan Project \$3.4M	<p>A solution to de-risk offshore wind, oil and gas, and other offshore installations by implementing wider scanning functions in underwater robotic systems</p> <p>https://oceansupercluster.ca/geoscan-project/</p>	<ul style="list-style-type: none"> • PanGeo Subsea • Cellula Robotics • The Fisheries and Marine Institute of Memorial University of Newfoundland and Labrador 	<p>Announced: August 11, 2021</p> <p>Closing.</p>
ROC Fishing System Project \$1.4M	<p>Ropeless or rope-on-command (ROC) fishing solutions to address vertical line entanglements, plastic pollution, and ‘ghost fishing’ caused by abandoned, lost, and discarded fishing gear.</p> <p>https://oceansupercluster.ca/project/canadas-ocean-supercluster-announces-1-4m-roc-fishing-system-project/</p>	<ul style="list-style-type: none"> • Ashored Inc • ESonar Inc. 	<p>Announced: Nov 18, 2021</p> <p>Field testing of hardware and software underway.</p>
Offshore Connected Worker Project \$3.1M	<p>The implementation of Connected Worker (CW) technologies in remote offshore operations, reducing risk and adding value to ocean companies</p> <p>https://oceansupercluster.ca/canadas-ocean-superclusterannounces-3-1m-offshore-connected-worker-project/</p>	<ul style="list-style-type: none"> • Horizon Maritime • Allswater Marine • ShipReality Inc • VMG Strategic Technology • Rimot • C-CORE • Kognitiv Spark • Kinduct 	<p>Announced: Dec 15, 2021</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Ocean Solutions For Immune Boosting Project</p> <p>\$2.3M</p>	<p>A clinically proven novel human health product with benefits in warding off infectious diseases made from Atlantic sea cucumber</p> <p>https://oceansupercluster.ca/?s=Ocean+Solutions+For+Immune+Boosting+Project</p>	<ul style="list-style-type: none"> • AKSO Marine Biotech inc. • Atlantic Sea Cucumber Ltd. • Fisheries and Oceans Canada • National Research Council (NRC) • PEI Bio Alliance 	<p>Announced: Feb 4, 2022</p> <p>Immunostimulant evaluation on cells and mice models completed.</p>
<p>Precision Fish Harvesting Project</p> <p>\$3.3M</p>	<p>A SmartNet using herding and deterring technology deployed through uncrewed service vessels (USVs) to improve the efficiency of conventional trawl fishing</p> <p>https://oceansupercluster.ca/?s=Precision+Fish+Harvesting+Project</p>	<ul style="list-style-type: none"> • Katchi • Scotia Harvest Inc. • ABCO Industries • Rimot • Clearwater • DSA Ocean • Rising Tide Bioacoustics • SafetyNet • MITACS 	<p>Announced: Feb 4, 2022</p> <p>Sea trails underway.</p>
<p>Project Sentry</p> <p>\$6.2M</p>	<p>A remote aquaculture monitoring solution using in-cage remote operated and autonomous vehicle technology</p> <p>https://oceansupercluster.ca/?s=Project+Sentry</p>	<ul style="list-style-type: none"> • Deep Trekker • Visual Defence Inc. 	<p>Announced: Feb 4, 2022</p> <p>In-cage autonomy testing underway.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Coastal Incident Management System Project</p> <p>\$10.5M</p>	<p>An emergency response package including a mobile command, control and communications system, data analysis tool and mobile incident platform for marine emergencies in coastal, Indigenous, and remote communities</p> <p>https://oceansupercluster.ca/?s=Coastal+Incident+Management+System+Project</p>	<ul style="list-style-type: none"> • Shift Environmental • T'Sou-ke Nation • Saab Technologies • BlueNode • The Canadian Coast Guard • Western Canada Marine Response Corporation (WCMRC) • The National Indigenous Fisheries Institute 	<p>Announced: Feb 4, 2022</p> <p>Situational Awareness Platform Is Operational.</p>
<p>Arowind Project</p> <p>\$6.7M</p>	<p>An uncrewed surface vessel (USV) based subsea inspection solution for offshore windfarms</p> <p>https://oceansupercluster.ca/?s=AROWIND+Project</p>	<ul style="list-style-type: none"> • Voyis • Deep Trekker • HydroSurv Unmanned Survey Inc. • EIVA • Sonardyne 	<p>Announced: Feb 4, 2022</p> <p>The prototype of the Stereo Camera has been completed.</p>
<p>Clean Ocean Advanced Biofuels Project</p> <p>\$65M</p>	<p>A renewable diesel from abundantly available agricultural and forestry by-products</p> <p>https://oceansupercluster.ca/?s=Clean+Ocean+Advanced+Biofuels+Project</p>	<ul style="list-style-type: none"> • Valen Low Carbon Technologies • FORGE Hydrocarbons • Mara Renewables • Clearwater • Katal Energy • Horizon Maritime • Sustainable Development Technology Canada 	<p>Announced: Feb 8, 2022</p> <p>Core Engineering and Design completed.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Mobile Storage and Multi-Modal Live Haul of Aquatic Animals</p> <p>\$1.7M</p>	<p>A mobile seafood storage system that controls and manages the storage and transport environment</p> <p>https://oceansupercluster.ca/bluevita-technology-project</p>	<ul style="list-style-type: none"> • Ship Nature’s Way Inc. • GIS Gas Infusion Systems Inc. • Ocean Perfect 	<p>Announced: Mar 13, 2022</p> <p>Project work commenced.</p>
<p>Crowd sourced Wind Maps Project</p> <p>\$1.8M</p>	<p>Connected wind sensors on boats to display crowdsourced wind zones to aid in navigation and route-planning</p> <p>https://oceansupercluster.ca/crowdsourced-wind-maps-project/</p>	<ul style="list-style-type: none"> • SailTimer • Canadian Yachting Media • IIC Technologies • Navcast • MarksetBot • McBride Racing • Storm Glass • Weather Tactic 	<p>Announced: Aug 1, 2022</p> <p>Technical work for crowdsourced wind data has been implemented.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>C-mass Project</p> <p>\$6.3M</p>	<p>A near-real-time monitoring solution for the ocean's littoral (near shore) zone to deliver actionable data to marine industries</p> <p>https://oceansupercluster.ca/c-mass/</p>	<ul style="list-style-type: none"> • Compusult Ltd • StrobelTEK • Spiri Robotics • PicSea Canada Ltd. • CogNova Technologies • Government of Nova Scotia • Resolve Robotics 	<p>Announced: Dec 2, 2022</p> <p>Project work commenced.</p>
<p>Adaptive Microlearning Technology Project</p> <p>\$5M</p>	<p>A comprehensive tool for Fatigue Risk Mitigation in marine organizations by leveraging combined advancements in biometrics, environmental data, and microlearning</p> <p>https://oceansupercluster.ca/adaptive_learning_technology/</p>	<ul style="list-style-type: none"> • Training Works • Compusult Ltd. • Altera Infrastructure • Qikiqtaaluk Corporation • Fisheries and Marine Institute of Memorial University of Newfoundland 	<p>Announced: Dec 2, 2022</p> <p>Closing.</p>
<p>Oneka Glacier Project</p> <p>\$14.1M</p>	<p>This will harness wave power to produce fresh water, producing no GHG emissions, requiring minimal land, and employing responsible brine-using modular units for water-scarce regions globally while also reducing water costs by two-thirds or more in identified markets.</p> <p>https://oceansupercluster.ca/project/oneka-glacier-project/</p>	<ul style="list-style-type: none"> • Oneka • H2o Innovation • A.F Theriault & Son Ltd 	<p>Announced: Mar 14, 2023</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Fishing Smarter Not Harder</p> <p>\$3M</p>	<p>In the project, the team is developing technology to bring near-real time images from the sea floor to the bridge to support decision making during trawling operations</p> <p>https://oceansupercluster.ca/project/fishing-smarter-not-harder-project/</p>	<ul style="list-style-type: none"> • Nunavut Fisheries Association • Northern Shrimp Research Foundation • Marine Institute • Canadian Offshore Fisheries Consortium • Notus Electronics Ltd • C-CORE 	<p>Announced: Apr 25, 2023</p> <p>Sea trial dates set and system ready for testing.</p>
<p>Virtual Ocean Project</p> <p>\$1.3M</p>	<p>This project is creating a digital engineering platform called Virtual Ocean. A collection of custom software ‘apps’ will be built on the platform that will c7italize on specific needs in every ocean sector, including marine aquaculture, marine renewables, defence, and offshore energy.</p> <p>https://oceansupercluster.ca/project/virtual-ocean-project/</p>	<ul style="list-style-type: none"> • Dynamic.,Systems Analysis (DSA) • Sustainable Marine • Cermaq Canada Ltd. 	<p>Announced: Apr 25, 2023</p> <p>Development underway to allow users to easily create computational bathymetry meshes.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Tech Companion - Operational and In-Service Support</p> <p>\$1.4M</p>	<p>This project will support the development and deployment of digital technologies for ocean manufacturers and service providers through an integrated service-hub called “Tech Companion” that centralizes data in a remotely accessible, intelligent, and automated digital ecosystem for use in ocean industries.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • Modest Tree Media Inc • Cartenav Solutions Inc • Mitacs 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>
<p>Production Resilience in Subsea Sensor Manufacturing Project (PRISSM)</p> <p>\$1.5M</p>	<p>The PRISSM project’s aim is to enhance and expand Canadian production capability and supply chain resilience in subsea optical sensor manufacturing to meet the increasing market demand.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • Voyis Imaging Inc. • Advantage Machine & Tool Inc. 	<p>Announced: Apr 20 ,2023</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>COMPASS Scale-Up Project</p> <p>\$3.3M</p>	<p>This project will assist the business to scale up production and develop enhanced versions for additional applications of the Thin Line Array developed in the original project a portable technology capable of collecting and analyzing passive acoustic data in real time, onboard untethered autonomous underwater vehicles.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • Sensor Technology Ltd • Kraken Robotics • JASCO Applied Sciences • Smart Sea Tech 	<p>Announced: Apr 25, 2023</p> <p>Project work commenced.</p>
<p>Enhanced SPC Manufacturing Application Data Collection and Logistics Project</p> <p>\$3.3M</p>	<p>GIT is expanding into a Net Zero facility in Atlantic Canada and increasing production capacity 12 times while improving efficiency through automation and Artificial Intelligence. In this project, GIT is collaborating with shipyards to improve access to sustainable biocide free, low friction coatings across Canada and the globe.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • Graphite Innovation and Technologies Inc. • Canadian Maritime Engineering Ltd 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Enhancing the OceanDNA System via Automation and Market Positioning Project</p> <p>\$1.1M</p>	<p>This project will enable eDNAtec to expand its analytical capacity to meet growing customer demands, as well as performing real-world demonstration projects of the benefits of eDNA technologies in fisheries and biodiversity management with the Nunavut Fisheries Association.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • eDNAtec Inc • Nunavut Fisheries Association 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>
<p>Expansion of Canadian Rope-on-Command Fishing Capacity Project</p> <p>\$1.4M</p>	<p>This project is supporting Ashored to increase manufacturing capabilities and strengthen supply chains to ensure that their rope-on-command technology can be delivered to fishermen on time and on budget.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • Ashored Inc. • Sensor Technology Ltd • eSonar Inc. 	<p>Announced:Apr20,2023</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>TallyVision</p> <p>\$1.1M</p>	<p>This project will embed both machine learning and computer vision artificial intelligence (AI) into seafood production and traceability software and advance ThisFish’s work on integrating computer vision technology - branded TallyVision.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • ThisFish Inc. • Orea Specialty Foods Ltd. • Eurofish S.A 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>
<p>Commercialization of Sustainable Protein for Aquaculture: Market Introductory</p> <p>\$7M</p>	<p>This project will expand DeNova’s capacity to produce large volumes of its protein ingredient that will accelerate market adoption and support the design of its first-level commercial plant. This will ultimately enable market entry by the end of 2023, growing to full scale production of 100,000 metric tons of protein per year by 2026.</p> <p>https://oceansupercluster.ca/expand-projects-52m/</p>	<ul style="list-style-type: none"> • DeNova Inc. • DFFI Ventures • Centre for Aquaculture Technologies • The Verschuren Centre • Innovasea Marine Systems Canada Ltd • Smallfood • MCA Consulting • Cooke 	<p>Announced: Apr20, 2023</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Multiport International Data Enhancement (MIDE)</p> <p>\$11.1M</p>	<p>This project focuses on the expansion of the BNSuite of applications developed in the original PIED project. MIDE focuses on the development of BNNet, an application that provides the translation and correction functions needed to make the organization work more efficient and reliable.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • BlueNode • Saab Technologies 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>
<p>Data Enhancement Framework (DEF)</p> <p>\$1M</p>	<p>This project builds on MIDE the predecessor project, focusing on a critical component of the value/supply chain in data management software application, the connectivity to the various operational functions of an organization.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • BlueNode • Port of Saint John 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Data Enhancement Framework 2 (DEF2)</p> <p>\$2.7M</p>	<p>This project builds on DEF, the predecessor project. The software will analyze operational functions of an organization for the purposes of operational analysis and coordination amongst stakeholders; as well as the appropriate cyber-security to allow data collaboration.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • BlueNode • Port of Saint John • PSAGlobal • Port of Halifax 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>
<p>Commercialization & Capacity Expansion of OSC Projects</p> <p>\$1.4M</p>	<p>This project is focusing on four significant opportunities that expand on the original RBR project: acquisition of a deep pressure vessel tank; building an optical test; acquisition of a Fast-Cooling Temperature Calibration (TCal) Bath; and aquisition of an incoming inspection optical scanner.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • RBR Ltd. • Plymouth Marine Laboratory • Department of Fisheries and Oceans 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Project Foundry</p> <p>\$6.6M</p>	<p>This project will deliver environmental benefits to the ocean economy through the deployment of Katal's first fuel supply depot in the world located on Canada's East Coast and serving the marine sector.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • Katal Energy Inc • Valent Low Carbon Technologies Ltd. • Miawpukek • Horizon Maritime Services 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>
<p>Remote Ocean Data Surveillance and Analysis (ROOSA)</p> <p>\$4M</p>	<p>This project brings together Canadian ocean technology innovators to integrate existing and emerging systems onto a common platform. Specifically, the -project will enable advanced, remote surveillance and inspections of ocean infrastructure.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • Shift Environmental Technologies Ltd. • BlueNode Inc. • Avestec • VideoRay • Nanaimo Port Authority • Snuneymuxw First Nation 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>

Project Name/Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Colab Enterprise Phase II -Commercialization, Expansion and Technological Scaling</p> <p>\$3M</p>	<p>This project will focus on two main areas: accelerating commercialization of Colab Enterprise and advancing the software solution for Enterprise Design Review.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • CoLab Software Inc. • Genoa Design • Kraken Robotics • ERINL • Aker Solutions Canada Inc 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>
<p>Offshore Connected Worker Mixed Reality Application Project</p> <p>\$1.9M</p>	<p>This project will implement the technology of a Connected Worker (CW) offshore in a digital twin environment, reducing the risks and adding value for offshore marine operations.</p> <p>https://oceansupercluster.ca/expanded-projects-52m/</p>	<ul style="list-style-type: none"> • Horizon Maritime Services Ltd. • Allswater Marine Consultants Ltd. • VMG Strategic Consulting • Kognitiv Spark Inc • Movella Technologies • N.A. Inc. 	<p>Announced: Apr 20, 2023</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Commercialization and Supply Chain Integration of BlueVita Technology Project</p> <p>\$3.6M</p>	<p>This project will enhance the commercialization efforts by supporting early adoption of the Ship Nature’s Way BlueVita technology with domestic and international customers for shipping of live seafood</p>	<ul style="list-style-type: none"> • Ship Nature’s Way • Huntsman Marine Science Centre • Pabineau First Nation • Miason Beausoleil • Norway King Crab • Aqua Production Systems • Tangier Lobster Company Limited • Irish Oysters Harvest 	<p>Announced: Mar 13, 2022</p> <p>Closing.</p>

APPENDIX A: CURRENT ANNOUNCED PROJECTS

Innovation Ecosystem Projects:

<p>Ocean Startup Project</p> <p>\$6.8M</p>	<p>Increase the number of high-quality, ocean focused startups thriving in Canada</p> <p>https://www.oceansupercluster.ca/projects/innovation-ecosystem-activities/ocean-startup-project/</p>	<ul style="list-style-type: none"> • Genesis • Creative Destruction Lab (CDL) • Innovacorp • New Brunswick Innovation Foundation • PEI BioAlliance • Springboard Atlantic 	<p>Announced: Feb 22, 2020</p> <p>100 early-stage companies supported, and more than 30+ new ocean companies created</p>
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Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Vitality</p> <p>\$3.8M</p>	<p>Advancing ocean data analysis, management and visualization capabilities, and products</p> <p>https://oceansupercluster.ca/cluster-building-vitality-project/</p>	<ul style="list-style-type: none"> • Pisces Research Project Management Inc. • Dalhousie University • Perennia Food and Agriculture Inc. • Fundy Ocean Research Centre for Energy • University of Victoria • St. Lawrence Global Observatory • Tula Foundation and the Hakai Institute • Marine Renewables Canada 	<p>Announced: Nov 19, 2020 11 new training Management Inc. materials developed. 137 students, 20 insitu workers, 12 indigenous communities, and more than 1000 unique individuals received training on key data skills critical to the ocean sector. Conducted three case studies centered on emerging and data-heavy ocean sectors, specifically aquaculture, tidal power, and offshore wind and wave energy generation.</p> <p>Resulted in making new, relevant data streams available through the Data Registry prototype. Completion of detailed report documenting recommendations for the development of a “data trust” to serve the data exchange and archival needs of the ocean industry. Partnered directly with an Indigenous-owned and operated business resulting in meaningful collaborations.</p> <p>Project has recently completed and awaiting Final Project Report.</p>
<p>Inclusive Workforce for Arctic Ocean Technology</p> <p>\$1.8M</p>	<p>Develop technical skills training for Inuit participants across Inuit Nunangat</p> <p>https://www.oceansupercluster.ca/smart-ice-inclusive-workforce-for-tech/</p>	<ul style="list-style-type: none"> • SmartICE • Pinnguaq Association • Nunavut Fisheries Association • Social Research and Demonstration Corporation 	<p>Announced: Sep 21, 2020</p> <p>Cirriculum components are complete. Upskilling of SmartICE regional operations leads took place in Winter of 2022 alongside the cirriculum iteration phase.</p> <p>Project Close: March 31, 2023</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Ocean Allies</p> <p>\$420K</p>	<p>Access, engage, and support a diverse ocean economy</p> <p>https://oceansupercluster.ca/ocean-allies-project/</p>	<ul style="list-style-type: none"> • Pisces Research Project Management Inc. • Huntsman Marine Science Centre • Perennia Food & Agriculture 	<p>Announced: Nov 01, 2022</p> <p>NSCC contracted and begun development of online DEI training modules. Career Pivot program criteria developed and promoted with recruitment in summer 2023. Baseline Ocean Diversity researcher identified at UVic. Mentorship platform nearing completion, live launch summer 2023. Speaker Series begun. Awards database updated. Project extension approved until December 2023.</p>
<p>Blue Futures Pathways</p> <p>\$2.4M</p>	<p>Building capacity, providing mentorship and support for youth (aged 18-30 years old) to pursue a career in ocean sectors</p> <p>https://www.oceansupercluster.ca/blue-futures-pathways/</p>	<ul style="list-style-type: none"> • Students on Ice (SOI) Foundation • ECO Canada • Institute for Ocean Research Enterprise/ Centre for Ocean Ventures and Entrepreneurship (IORE/COVE) • Mitacs 	<p>Announced: Nov 24, 2020</p> <p>Digital PORT launched in May 2021 to match youth, educators and employers from across Canada with the resources, tools and mentorship to consider and develop ocean and water-related career pathways. Interns placed from January 2021 to March 2023.</p> <p>Project Close: March 31, 2023</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Indigenous Career Pivot Pilot Project</p> <p>\$740K</p>	<p>Facilitate and support meaningful work placements for Indigenous peoples wishing to explore career options in the ocean economy</p> <p>https://oceansupercluster.ca/canadas-ocean-supercluster-announces-indigenous-career-pivot-project/</p>	<ul style="list-style-type: none"> • Ulnooweg Development Group • Joint Economic Development Initiative • College of the North Atlantic 	<p>Announced: Sept 21, 2020</p> <p>11 placements and expansion of program to Canada-wide. Cultural training for employers complete, and support, resources, and training provided to all participants.</p>
<p>Crisis Intervention & Operability Analysis for Digital Ocean Operations (CRIOP-DO) Project</p> <p>\$471K</p>	<p>Building upon Norway’s Crisis Intervention and Operability Analysis (CRIOP) model to demonstrate safety and reliability assurance of critical, complex digital ocean systems</p> <p>https://oceansupercluster.ca/canadas-ocean-supercluster-announces-471k-crisis-intervention-operability-analysis-for-digital-ocean-operations-project/</p>	<ul style="list-style-type: none"> • Energy Research & Innovation Newfoundland and Labrador (ERI), • NRC • Lloyd’s Register • Atlantic Towing • MUN • SINTEF (the Foundation for Scientific and Industrial Research at the Norwegian Institute of Technology) 	<p>Announced: Dec 15, 2021</p> <p>Project work commenced.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Ocean Allies 2.0</p> <p>\$1.1M</p>	<p>Building on the successful pilot, Ocean Allies 2.0 will advance equity, diversity, and inclusion in the ocean ecosystem and expand the pilot program's scope beyond the Atlantic provinces to become a national program, with partners and key organizations from coast-to-coast-to-coast</p> <p>https://oceansupercluster.ca/ocean-allies-2-0/</p>	<ul style="list-style-type: none"> • Pisces Research Project Management • Huntsman Marine Science Centre • Perennia • A roster of ocean partners 	<p>Announced: Nov 1, 2022</p> <p>Project work commenced.</p>
<p>Indigenous Career Pivot Program</p> <p>\$1M</p>	<p>Facilitating and support meaningful work placements for up to 17 Indigenous People wishing to explore new career options in Canada's ocean economy</p> <p>https://oceansupercluster.ca/canadas-oceansupercluster-announces-1-m-indigenous-career-pivot-program/</p>	<ul style="list-style-type: none"> • Clear Seas Centre for Responsible Marine Shipping • British Columbia Institute of Technology • College of the North Atlantic • Aboriginal Community Career Employment Services Society 	<p>Announced: May 17, 2022</p> <p>11 placements nationwide. 3 matched work placements in NL and NS, and 8 Bridge Watch recruits trained and placed with marine shipping companies in BC. Cultural training for employers complete, and support, resources, and training provided to all participants.</p>

Project Name/ Budget	About the Project	Collaborators	Project Activity (Confidential - For Internal Use Only)
<p>Two-Eyed Seeing Initiative</p> <p>\$230K</p>	<p>Working towards meaningful Indigenous participation in Canada’s ocean economy, this initiative will engage and collaborate with Indigenous organizations and communities to foster greater inclusion and participation in OSC projects and activities and build direct and meaningful partnerships</p> <p>https://oceansupercluster.ca/two-eyed-seeing/</p>	<ul style="list-style-type: none"> • SOAR Professional Services • Indigrow Business Management • Dillon Consulting 	<p>Announced: Dec 16, 2022</p> <p>Project work commenced.</p>
<p>Blue Mentorship and Leadership Pathways</p> <p>\$920K</p>	<p>Develop mentorship and leadership pathways through mentorship matching, a blue economy mentorship toolkit, and seminars in the DEI space.</p> <ul style="list-style-type: none"> • Connect Ocean Founders to Ocean Experts to help them lead and effectively grow their organization and the sector. • Create an accessible and inclusive program for women, visible minority groups and Indigenous peoples interested in working in the sector. <p>Blue National Occupational Standard ECO Canada</p>	<ul style="list-style-type: none"> • ECO Canada • COVE • College of the North Atlantic • JEDI • Future Skills Centre (OLIP) 	<p>Announced: July 8, 2022</p> <p>Curriculum for mentors and mentees is complete. Mentorship and mentee onboarding has begun for pairing and partnerships. Three seminars have been delivered.</p> <p>Project Close: July 31, 2023</p>



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CORPORATE PLAN REPORTING REQUIREMENTS

(per Schedule 5 of the Contribution Agreement)

Requirement		LOCATION WHERE REQUIREMENT IS ADDRESSED	
		Subsection(s)/Heading	Page(s)
A	A statement of the Recipient’s priority objectives, activities for the upcoming Fiscal Year and medium-term horizon, including for the foreseeable future; including Cluster Ecosystem development objectives	<ul style="list-style-type: none"> • Our Objectives • Key Activities For 2023 	2 6
B	Reference to the Recipient’s previous year’s Corporate Plan highlighting its successes and remaining challenges	<ul style="list-style-type: none"> • Looking Back: Key Activities in Fiscal 2022 	4
C	A statement of planned expenditures for the upcoming Fiscal Year	<ul style="list-style-type: none"> • Corporate Structure and Financials 	14
D	A description of Technology Investments and summary of planned projects and their implementation schedule for the upcoming Fiscal Year	<ul style="list-style-type: none"> • Developing Technology for The Future • Innovation Ecosystem Activities 	7 11
E	The anticipated results of those project investments	<ul style="list-style-type: none"> • Developing Technology for The Future; • Innovation Ecosystem Activities • Current Announced Projects 	7 13 25
F	The anticipated revenues from other sources	<ul style="list-style-type: none"> • Corporate Structure and Financials 	14
G	A summary of risk assessments and mitigation strategies	<ul style="list-style-type: none"> • Risk Management 	22

		LOCATION WHERE REQUIREMENT IS ADDRESSED	
Requirement		Subsection(s)/Heading	Page(s)
H	A summary of ongoing performance monitoring strategies in line with the Performance Management Framework	<ul style="list-style-type: none"> • Key Outcomes for Fiscal 2022 	16
I	The anticipated amount of Industry Matching Funds to be received in the upcoming year	<ul style="list-style-type: none"> • Corporate Structure and Financials 	14
J	A summary of the Implementation of Cluster Ecosystem development activities and the anticipated financial commitment for the upcoming Fiscal Year	<ul style="list-style-type: none"> • Innovation Ecosystem Activities; • Corporate Structure and Financials 	11 14
K	A summary of the implementation of the Intellectual Property Strategy and any intended modifications related to the Intellectual Property Strategy	<ul style="list-style-type: none"> • Intellectual Property and Data Strategies 	18
L	A summary of the implementation of the Data Strategy and any intended modifications related to the Data Strategy	<ul style="list-style-type: none"> • Intellectual Property and Data Strategies 	18
M	A statement of Recipient's annual cash flow requirements for the upcoming Fiscal Year	<ul style="list-style-type: none"> • Corporate Structure and Financials 	14
N	A statement of all amounts owing to the Crown pursuant to legislation, this Agreement, any other agreement or any other authority, if any	<ul style="list-style-type: none"> • Not Applicable 	N/A

CORPORATE PLAN GUIDANCE DOCUMENT

In December 2021 ISED circulated a guidance document for Innovation Supercluster Initiative Corporate Plans. The below table is a mapping of those requirements to content within OSC's Corporate Plan.

Requirement	LOCATION WHERE REQUIREMENT IS ADDRESSED	
	Subsection(s)/Heading	Page(s)
2.1 a) a statement of the Cluster's priority objectives/activities for the Upcoming Fiscal Year and medium-term horizon, inclusive of objectives tied to ecosystem development	<ul style="list-style-type: none"> • Our Objectives • Key Activities For 2022 • Appendix C 	2 7 40
2.2 b) reference to the Recipient's previous year's Corporate Plan highlighting its successes and remaining challenges;	<ul style="list-style-type: none"> • Looking Back: Key Activities in Fiscal 2022 	5
2.3 c) a statement of planned expenditures for the upcoming Fiscal Year	<ul style="list-style-type: none"> • Corporate Structure and Financials 	14
2.3 f) the anticipated revenues from other sources	<ul style="list-style-type: none"> • Corporate Structure and Financials 	15
2.3 i) the anticipated Industry Matching Funds to be received in the upcoming Fiscal Year	<ul style="list-style-type: none"> • Corporate Structure and Financials 	15
2.3 m) a statement of the Recipient's annual cash flow requirements for upcoming year	<ul style="list-style-type: none"> • Corporate Structure and Financials 	15
2.3 n) a statement pursuant of all amounts owing to the Crown pursuant to any legislation or agreement	<ul style="list-style-type: none"> • Corporate Structure and Financials 	14

CORPORATE PLAN GUIDANCE DOCUMENT

Requirement	LOCATION WHERE REQUIREMENT IS ADDRESSED	
	Subsection(s)/Heading	Page(s)
2.4 k) a summary of the implementation of the Intellectual Property Strategy and any intended modifications related to the Intellectual Property Strategy	<ul style="list-style-type: none"> Intellectual Property and Data Strategies 	23
2.4 l) a summary of the implementation of the Data Strategy and any intended modifications related to the Data Strategy	<ul style="list-style-type: none"> Intellectual Property and Data Strategies 	23
2.5 h) a summary of ongoing performance monitoring strategies; common outcomes to be included	<ul style="list-style-type: none"> Key Outcomes for Fiscal 2022 	21
2.6 g) a summary of risk assessments and mitigation strategies	<ul style="list-style-type: none"> Risk Management 	22
2.7 d) a description of technology investments and summary of planned projects and their implementation schedule for the upcoming year.	<ul style="list-style-type: none"> Developing Technology for the Future 	7
2.7 e) the anticipated results of those investments	<ul style="list-style-type: none"> Developing Technology for the Future 	7
2.8 j) a summary of the implementation of Cluster Ecosystem development activities and the anticipated financial commitment for such activities for the upcoming Fiscal Year	<ul style="list-style-type: none"> Ecosystem Activities Corporate Structure and Financials 	11 15