



**CANADA'S OCEAN
SUPERCLUSTER**

CANADA'S OCEAN SUPERCLUSTER

2022-2023
ANNUAL REPORT

Building a Digital, Sustainable, and
Inclusive Ocean Economy for Canada

www.oceansupercluster.ca

TABLE OF CONTENTS

ABOUT CANADA'S OCEAN SUPERCLUSTER	1
VISION, MISSION AND VALUES	
AMBITION 2035	2
MINISTERIAL FOREWORD	3
MESSAGE FROM CHAIR	4
MESSAGE FROM CEO	5
BOARD OF DIRECTORS	6
LEADERSHIP TEAM	7
NATIONAL MEMBER NETWORK	8
MEMBER LIST	9
A YEAR IN REVIEW	14
KEY PERFORMANCE INDICATORS TO DATE	17
TESTIMONIALS	22
PROJECT PORTFOLIO	24
IP STRATEGY	51
DATA STRATEGY	52
BUILDING A MORE EQUITABLE, DIVERSE, AND INCLUSIVE OCEAN ECONOMY	53
INDIGENOUS PARTNERSHIPS AND ENGAGEMENT	54
CANADA'S OCEAN BRAND - TELLING OUR STORY	55
A LOOK AHEAD	56
CASH FLOWS FROM CLUSTER ACTIVITIES	57
FINANCIAL REPORT	58

ABOUT CANADA'S OCEAN SUPERCLUSTER

The sustainable development of the ocean is one of the most important opportunities of our time. Canada's Ocean Supercluster (OSC) is accelerating the development and commercialization of made-in-Canada ocean solutions to tackle some of the world's biggest challenges in energy transition, food security, decarbonization of marine transport, as well as climate solutions. This not only helps Canada deliver on its net-zero commitments but also creates significant economic growth, jobs, and new opportunities for communities.

The OSC is Canada's national ocean cluster. With more than 500 members from coast-to-coast-to-coast, it is industry led and serves as a catalyst and convenor that is growing Canada's ocean economy in a way that has never been done before. Facilitating partnerships and projects across ocean sectors and a global brand platform for Canada's ocean community, the OSC has a portfolio of \$400 million in projects involving more than 300 partners who are delivering more than 200 new ocean products, processes and services to the world.

Built on a collaborative model, Canada's Ocean Supercluster brings together companies of all sizes, industry, academia, investors, regional innovation hubs, and governments to work together to realize the full potential of a more digital, sustainable and inclusive ocean economy in Canada. To support this growth, the cluster is also focused on the development of a robust ecosystem including more ocean companies starting and scaling, engaged communities to identify challenges and solutions, engaging Indigenous people and under-represented groups, and helping build the well-skilled, diverse workforce needed.

Canada's Ocean Supercluster is also increasing its presence in emerging and established markets worldwide. The cluster has numerous international strategic partnerships, bringing new collaborative and commercial opportunities to members, while also telling Canada's ocean story to the world.

VISION, MISSION, AND VALUES

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

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

Values: Creativity, inclusion, collaboration, and ambition



AMBITION 2035

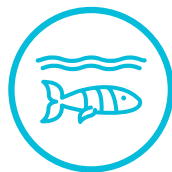
There has never been a more exciting time to be a part of the global ocean economy. With incredible momentum building; established, emerging and new ocean sectors growing; and a demonstrated commitment to innovation and ocean protection, the world is increasingly turning its attention to how Canada is doing business in ocean.

In 2016, the OECD evaluated the growth of the global ocean economy, projecting it would double in size by 2030 to \$4 trillion CAD, outpacing the broader economy's growth by 20 per cent. In the context of this global ocean potential, Canada has incredible momentum, on the cusp of transformative growth with significant opportunities for Canadian businesses and Canadian workers.

In 2019, Canada's ocean economy generated \$39 billion in GDP. This represents 1.6% of Canada's overall GDP and only half of the global average contribution from ocean economies to GDPs around the world. With the longest coastline in the world, the fourth largest ocean territory, and some of the most innovative people on the planet, Canada has yet to realize its full potential as an ocean nation. Ambition 2035 represents a five times growth potential in ocean in Canada by 2035 growing to \$220 billion and contributing more than five per cent of the forecasted GDP.



**SCALED
OCEAN
ENERGY**



**SUSTAINABLE
SEAFOOD**



**MARINE
TRANSPORTATION**



TOURISM



**PRIVATE
SECTOR**

The \$220 billion ambition for Canada's ocean economy is informed by stakeholders from across the country in ocean industry, technology and innovation, research, economics, government, community, and workforce. Well supported, it's a shared ambition, driven by sectors that have been identified as having the highest growth potential, and will put Canada at the forefront of global ocean markets. This ambition can result in commercial products, processes, and services that help solve some of the world's biggest challenges while also creating game-changing economic return.

What does this mean for Canadians? This ambition means five times the economic benefit to Canada from the ocean economy and opportunity for Canadians whether they live near an ocean or not. It's opportunity for students and universities in ocean research; increased data collection capabilities to inform decision-making; more new ocean companies established as well as those scaling up; increased participation and collaboration with Indigenous Peoples; innovative solutions for rural, northern and coastal communities that address the accelerated impacts of climate change; increased competitiveness and significant commercial opportunities for Canadian ocean companies in global markets; and tens of thousands of more new jobs and an ocean workforce that is diverse, well-skilled, and champions of a healthy, prosperous ocean future. Read more [here](#)

MESSAGE FROM THE HONOURABLE

FRANÇOIS-PHILIPPE CHAMPAGNE, MINISTER OF INNOVATION, SCIENCE AND INDUSTRY



The Government of Canada is working to secure Canada's economic growth and prosperity in a green, digital and resilient world economy. We are in a position to seize the moment and build on our solid innovation investments so that Canada succeeds in the new global economy.

The Global Innovation Clusters are accelerating Canada's global competitive edge by bringing together companies of all sizes, academic institutions and not-for-profits to generate bold new ideas. These clusters have helped build successful and growing innovation ecosystems across the Canadian economy in five areas where Canada has an innovative advantage: plant-based protein alternatives, ocean-based industries, advanced manufacturing, digital technologies, and artificial intelligence for supply chain and logistics.

The clusters are spurring innovation and collaboration across Canada by launching projects that are helping grow our economy and bringing tangible benefits to Canadians. Since the launch of the program in 2017, the clusters have been finding new ways to build connections, bringing together experts in their fields to create high-quality, well-paying jobs; invest in promising projects; help firms scale up; and position Canada as a global leader in the innovation space.

The Global Innovation Clusters are delivering tangible benefits to Canadians with their unique model, creating stronger ecosystems, de-risking the adoption of technology, maximizing the value of intellectual property and forging new partnerships that increase firms' market potential. As of March 2023, the clusters announced more than 500 projects worth \$2.37 billion and involving more than 2,500 partners. They are on track to meet or exceed the overall job creation target of 15,000 direct, indirect and induced jobs by 2023 and 50,000 by 2028.

Because of these strong results, our government confirmed Canada's commitment to the clusters in Budget 2022, investing an additional \$750 million through to 2028 to support the further growth and development of Canada's Global Innovation Clusters. Building on their success to date, the five clusters will expand their national presence and will continue to collaborate with partners to deepen their impact at home and abroad, including through joint missions aligned with key global priorities such as fighting climate change and addressing supply chain disruptions.skills.

Since the inception of the program, the clusters have developed a new approach to innovation through co-investment with industry to build accelerated, strong ecosystems that are taking innovators further, faster through collaboration. The clusters have exceeded expectations while delivering tangible results, both at home and globally.

Canada's Ocean Supercluster (OSC) in particular is positioning Canada as a leader in the sustainable growth of the ocean economy. Over this past year, OSC has led innovative projects on, among other things, increasing community access to fresh water and developing battery energy storage systems to meet rapidly increasing demand for the electrification of marine vessels and maritime infrastructure to zero-emission or low-emission operation. Through the development of such projects, OSC is helping industry access and acquire the capability Canadian companies need now to become and stay globally competitive in the ocean economy.

I would like to extend a heartfelt thank you to everyone involved with OSC for your commitment to strengthening Canada's innovation ecosystems and helping to establish a diverse and skilled workforce ready for the jobs of the future.

A handwritten signature in black ink, appearing to read 'F. Champagne'.

The Honourable
François-Philippe Champagne, P.C., M.P.

MESSAGE FROM THE CHAIR OF THE BOARD- JOHN RISLEY



As I sat down to write this year's forward I re-read and reflected on what I had written last year. My first reaction was, why not repeat that message as the theme still resonates, but that would be too easy. And it would ignore all that has happened during the past year. On that front, this past year has been dominated by extreme weather events, and everywhere. Their ferociousness, frequency and damage caused is frankly frightening, as is the extent to which we can't know whether this year was an anomaly or a portend of worse to come. We do know there are patterns, trends which would seem to indicate the more to come direction . These are evident in the El Nino , a multi year event which has just descended on us, gradually increasing ocean temperatures everywhere (not to mention the unbelievable extremes off the Florida coast) and the changing pace of the Gulf Stream, to identify just a few. All these have consequences , the outcomes or impacts of which we are uncertain. But they are likely to be dramatic.

So what to do ? I am reminded of the wisdom of a famous whaling captain from the Orkney Islands, William Scoresby. He was the first to chase whales in the Davis Strait , a theretofore uncharted region. Conscious he was just as much explorer as he was commercial whale hunting he took copious notes of data points like water temps and depths, wind conditions, and anything else the scientific instruments of his age allowed. This data proved to be extremely useful to a better understanding of weather patterns over time and just a better sense of the Arctic and it's importance . Today, data collection and how it informs science is every bit as important. Indeed, probably more so.

I accompanied our fellow Board member , Anya Waite, Director of the Ocean Frontier Institute, to New York this past June for a session with ocean scientists and members of the financial community. The purpose of the get-together was to inform that community of the importance of the oceans on global climate , the role oceans play as the world's most important carbon store and how the changing ocean conditions are likely to impact on our climate. I can tell you this is scary stuff.

So what can we at the Cluster do about any of this ? I think lots, and we are. Our new AI program, just launched with a series of successful applicants and their projects, the focus is on not just data collection but data interpretation. And by that I mean taking the data and turning it into useful information products. This helps inform , develop understanding and build business cases on the one hand and on the other a better picture of the ocean environment for the science community.

We are partnering with Marine Renewables Canada and their members in an attempt to accelerate the development of an east coast offshore wind industry. There is huge potential in realizing on this resource and for both economic imperatives and the important role the sector can play in reducing carbon emissions.

Anywhere there is opportunity to use innovation to develop the ocean economy we are willing to help share the risk . Thank you for the role you are playing in this nation building exercise. There is more to do, much more and we are open for business!

A handwritten signature in black ink, appearing to be 'JR' or similar initials.

John Risley
Chair of the board

MESSAGE FROM THE CEO – KENDRA MACDONALD



As we embark on our second mandate at Canada’s Ocean Supercluster, it’s with significant momentum behind us that we build on what we started together just five years ago. And while I have always found it exhilarating to start a new chapter of something – not unlike the feeling of cracking open new books for school in the fall – it’s with a great deal of pride that we can reflect on the accomplishments of our cluster over the past year and over the course of our first mandate.

In 2022, we continued to mature as Canada’s national ocean cluster with a robust portfolio of projects in technology leadership and innovation ecosystem that grew to more than \$400 million in value, involve more than 300 partners that span the country and have captured the attention of the world. These projects are collaborative in nature, co-invested by industry and the OSC, and bring together partners who have often never worked together before from different regions and different ocean sectors. From digital twins, to alternative fish feed, to biofuels, to underwater robots, to creating pathways for young companies and under-represented groups in ocean, these projects help accelerate the development and commercialization of more Canadian ocean innovation globally, start and grow more ocean companies, create thousands of new jobs, attract and train more workers to the ocean sector, and increase Canada’s global leadership in digital, sustainable and inclusive growth of the ocean economy.

When we started just five years ago, there were a lot of unknowns and some even considered the idea of what we were doing to be an experiment. In those days, getting started meant opening a bank account, building a team and a cluster from the ground up, developing a framework, and learning and improving processes along the way. It was also an opportunity to be bold, do innovation in the ocean differently, and get the country to rally behind working together and unlocking the potential of a \$220 billion, 5X growth ambition for Canada in ocean, an initiative we launched this year called Ambition 2035.

The model is working and today, there are more global clusters cropping up that emulate the framework we’ve developed and deployed. That’s not to say that we won’t continue to learn and evolve but what it does mean is what we are doing together has proven to be an effective way to accelerate ocean innovation, change the way we do it, and build a robust ecosystem to support the tremendous growth potential is being generated as a result. The world has taken note.

With recapitalization of Canada’s Ocean Supercluster under the Global Innovation Program this year, we are excited to move into new projects and programs, continue to expand our reach in Canada and across the world, and increase the competitiveness of Canadian ocean companies. The program renewal itself is a further demonstration of confidence from our Federal Government and a testament to the significant economic benefits we are bringing to companies, communities, and workers while solving some of the biggest challenges in ocean and contributing to a healthier planet.

I want to express my gratitude to our Board of Directors, the team at ISED, our staff, and our members and partners for sharing our vision and ambition for what it means to change the way we do ocean business. So much has been accomplished I am very proud to continue to work with you on this journey, and just like the first day of school – I can’t wait to dig in and see what this year holds.

Kendra MacDonald
Chief Executive Officer

BOARD OF DIRECTORS

Canada's Ocean Supercluster's Board of Directors is a group of leaders who bring significant experience, insight and support to the cluster as it continues to build momentum, its membership and impact as a key driver of growth in Canada's ocean economy. Responsible for providing strategic oversight to the OSC, the Board of Directors meets at least quarterly and actively participates in OSC committees, events, and activities.



John Risley
Chair of the Board,
CFFI Ventures Inc.



Judyth Almasi
Tidalis Americas Ltd



Moya Cahill
Kraken Robotics



Zita Cobb
Shorefast



Lazaro Cosma
ExxonMobil Canada



David Courtemanche
Merinov



Beverley Evans
Venor



Rory Francis
PEI BioAlliance



Dan Muldoon
Emera Inc.



Vanessa Newhook
Chevron Canada Limited



Robert Orr
Cuna del Mar



Ken Paul
Consultant



Niru Somayajula
Sensor Technology



Martin Sullivan
Ocean Choice
International



Anya Waite
Ocean Frontier Institute

SENIOR LEADERSHIP TEAM

The OSC's Senior Leadership Team leads a pan-Canadian organization of more than 30 employees. They are responsible for delivery of the corporate strategy and report regularly to the Board of Directors on Finance and Administration, Membership, Technology Leadership and Innovation Ecosystem project streams, Government Relations and Communications, and planning activities. The OSC would like to acknowledge the contribution of three members of its Senior Leadership Team who moved on in 2022. Thank you to Susan Hunt (CTO), Rob Barton (CAO) and Melody Pardoe (CNO).



EFFECTIVE APRIL 1, 2023,
the OSC Senior Leadership team
consists of:

Kendra MacDonald

Chief Executive Officer



**Jennifer
LaPlante**

Chief Growth and
Investment Officer



**Nancy
Andrews**

Chief Engagement &
Communications Officer



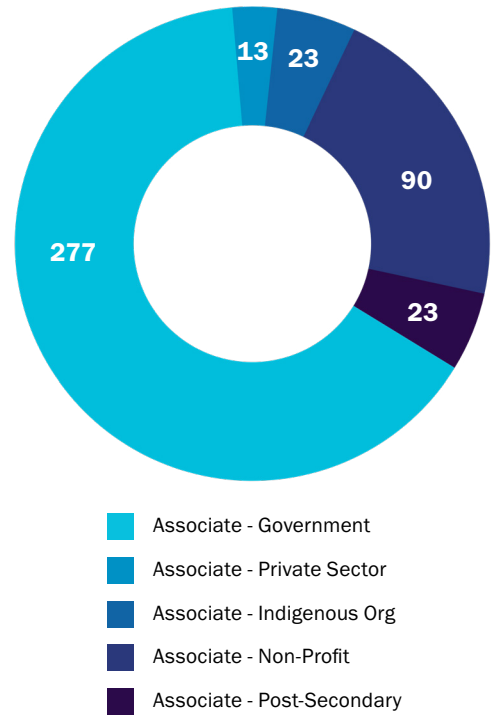
**Meagan
Halverson**

VP, Operations

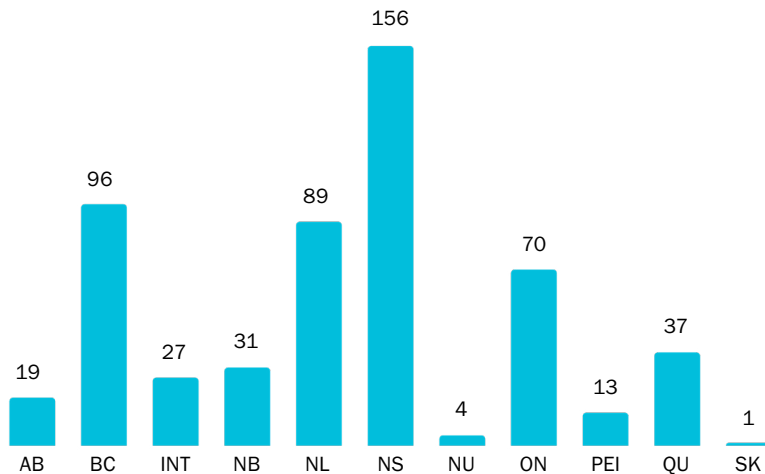
NATIONAL MEMBER NETWORK

This year, the OSC continued to work with its growing membership of more than 500 members to find different ways of connecting and creating new opportunities virtually as well as in hybrid formats. This work has also helped to remove barriers to participate in Canada’s ocean economy, particularly for interprovincial and international engagement and collaboration.

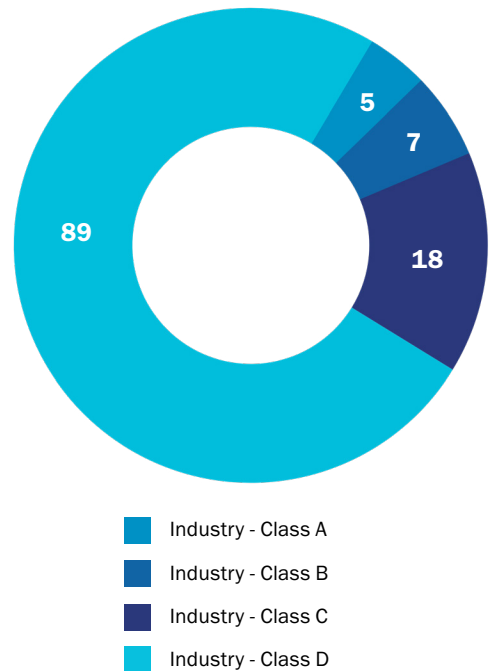
Breakdown of Associate Membership



Membership Distribution by Province/Territory



Breakdown of Industry Membership



OSC MEMBERSHIP

Urchinomics	NRC	Rokologik Programmable Solutions Incorporated
Ship Nature's Way	TechNL	Roundtable Solutions Inc.
The Dymond Group Inc.	New Brunswick Innovation Foundation (NBIF)	Saint Mary's University
British Columbia Institute of Technology (BCIT)	Newfoundland and Labrador Environmental Industry Association	SEASI Consulting Inc.
Sustainable Sea Products	Nova Scotia College of Art and Design (NSCAD)	SmartICE Sea-Ice Monitoring & Information Inc.
Newfoundland & Labrador Government ?	Nova Scotia Boatbuilders Association	Springboard Atlantic Inc.
Department of Industry, Energy, & Technology	Nova Scotia Community College (NSCC)	Standards Council of Canada
XOcean Canada Ltd.	Nova Scotia Innovation Hub	St. Francis Xavier University
Joint Economic Development Initiative (JEDI)	Numurus LLC	Department of Tourism, Culture, Industry and Innovation Newfoundland and Labrador
Compusult Limited	Ocean Frontier Institute (OFI)	Tracker Inventory Systems
Vericatch	OceansAdvance Inc.	Triware Technologies Inc.
Startup Zone	Offshore Energy Research Association	Ulnooweg Development Group
Students on Ice Foundation	J-Squared Technologies Inc.	Université de Moncton
CoLab	Xeos Technologies Inc	University of British Columbia
IT International Telecom Canada Inc.	Canada Steamship Lines (CSL) Group	University of New Brunswick (UNB)
Magnet	Northern Shrimp Research Foundation	University of Victoria
Arctic UAV Inc.	Highline Beta	Unmanned Systems Canada
Oakleaf Crane & Inspection Services Ltd.	Ignite Labs Inc.	UpGyres
Skipper Otto	Innovacorp	Valores
D.M.R. Boat Design	Innovate Atlantic	Vision33 Inc.
Pro-Oceanus Systems Inc.	Lavery Lawyers	Whale Seeker Inc.
MDSI ApS	Marimetrics Technologies Inc.	Loless Blue Beauty
Canadyne Technologies Inc.	RBR	ArobotNx Solutions Inc
Corvus Energy	Marine Environmental Observation, Prediction and Response Network (MEOPAR)	SAAM Towage Canada
Welaptega Marine	Martec Limited	NCI Ferry Service Ltd
Teledyne CARIS	Open Ocean Robotics	Dillon Consulting Limited
Global Spatial Technology Solutions Inc. (GSTS)	OVA	Pur Agroalimentaire
Hampidjan Canada Ltd	Pisces Research Project Management Inc.	Industrial Plankton Inc.
Canada Revenue Agency	Polyamyna Nanotech Inc.	Allsalt Maritime Corporation
Asadalia Fisheries Limited	Propel ICT	MNP Technology Solutions
Seaspan Ferries	Prince Edward Island (PEI) BioAlliance	Brilliant Labs
WhoPlusYou Inc	Resqunit Canada Inc	Wärtsilä Canada Inc.
Memorial University of Newfoundland (MUN)	Riipen Networks Inc.	Envairo Corporation
Mitacs Inc.	REVOLUTION Turbine Technologies	Ingenious Countermeasures Technologies Inc. (ICMT)
Seaforth Geosurveys Inc.		IIC Technologies Inc.
		Cyber Security Canada
		Northern Peninsula Mi'kmaq Band
		D-RisQ

OSC MEMBERSHIP

International Submarine
Engineering (ISE)

Lindsay Construction

Eastern Charlotte Waterway Inc.

Drastic Plastic

Vancouver Maritime Centre for
Climate

Esri Canada

Weaver Consulting

Global Manpower Supply
Recruitment Company

MOWI Canada West

SOAR Professional Services

Inmarsat

Fundamentally Inc.

CMB Consulting Limited

Rural Communities Foundation of
Nova Scotia

Halifax Partnership

Accumulated Ocean Energy Inc.
(AOE)

SeaBrick Society

Fieldco Services

Avestec Technologies

Patel Research Tech Inc

Pacific Rim Engineered Products
(1987) Ltd.

EPIC Semiconductors, Inc.

Queen's University

Ocean Networks Canada

The HR Practice

Digital Nova Scotia

Bonsai Growth

Third Rail Technologies

R. J. McGregor & Associates

Coastal Restoration Society

HonuWorx

InnovMarine

Miawpukek Horizon Maritime
Services Ltd.

East Coast Mobile Medical Inc.
(ECMM)

Voltai Inc.

South Island Prosperity
Partnership

Net Zero Project

Allos Bioscience Ltd.

DOF Subsea Canada

Buckley Yacht Design Inc

DASCO Equipment Inc.

Alberni Yachts Inc.

Benchmark International

Atlantic Canada Fish Farmers
Association (ACFFA)

Acadia University

AKVA Group

Ashored Inc.

BioNovations Inc.

BujiBui Inc.

Cellula Robotics Ltd.

CFFI Ventures Inc.

ClearRisk Inc.

EMERA

eSonar Inc.

Kraken Robotics

Live Ship Limited

Meta Materials Inc. (META@)

Nunavut Fisheries Association
(NFA)

Ocean Floor Geophysics, Inc.
(OFG)

Ocean Choice International (OCI) -
Grieg NL Partnership

Rutter Inc.

Sensor Tech

Stantec Consulting Ltd.

Energy Research & Innovation
Newfoundland & Labrador (ERINL)

ACTEMIUM

Innovasea Marine Systems
Canada Inc.

I. Deveau Fisheries Ltd.

Horizon Maritime

Huntsman Marine Science Centre

Virtual Marine

Dispersa Inc.

3F Waste Recovery

ABB Inc.

FORCE

Genoa Design International

Graphite Innovation &
Technologies (GIT)

GRI Simulations Inc.

CMC Microsystems

Halifax Offshore Consulting Inc

VoltSafe Inc.

RAS Technologies

Women in Resource Development
Corp -WRDC

506 Industries

Hefring Marine

Rising Tide BioAcoustics Ltd.

New School Foods Inc.

Canadian Pacifico Seaweeds Ltd.

Hawboldt Industries

Kerrwil Publications Limited

Cole International Inc.

Spiri Robotics

Easy

Canadianpond.ca Products Ltd.

Innovation Maritime

Tidal Flyer

ABCO

Smallfood Inc.

Seashore Maritime Services
Limited

SailTimer

Cascadia Seaweed

Cermaq Canada Ltd.

AAPT - Atlantic Advanced Power
Technologies

Verschuren Centre Inc.

A.F. Theriault & Son Ltd.

Geotexera

Huawei Technologies Canada

Algorithm Ingredients

The Fur Institute of Canada

OSC MEMBERSHIP

Marecomms	Survival Systems Training (SSTL)	Canadian Scientific Submersible Facility
Town of Conception Bay South	Navcast Inc	Canscan Softwares and Technologies Inc
PicSea	Independent Robotics	C-CORE
StrobelTek	Amundsen Science	Centre for Ocean Ventures and Entrepreneurship (COVE) & Institute for Ocean Research Enterprise (IORE)
H2O Innovation Inc	Applied Genomics Ltd.	Arctic Research Foundation
Teebod Technical Solutions	Aquaculture Association of Nova Scotia	Association of British Columbia Marine Industries (ABCMI)
Jupiter Hydro Inc.	MCG Canada	Atlantic Canada Aerospace & Defence Association (ACADA)
Perennia Food and Agriculture Inc.	Canadian Network for Ocean Education (CaNOE)	Atlantic Policy Congress of First Nations Chiefs Secretariat Inc.
Port of Saint John	CanArctic Inuit Networks	Atlantic Water Network
Browns Bay Packing	AtlanticWild(TM) Restorative Sea Food	Baker & McKenzie LLP
Revive Path Inc.	Biome Renewables	Beyond the Border Consulting Ltd.
Punta Perla Pacifico	Regenerative Waste Labs	BioNB
Fisheries Council of Canada	DeltaSea	Photons Canada
Datifex, Inc.	Intecsea	Dalhousie University
Skaginn 3X	City of Port Alberni	Dartmouth Ocean Technologies Inc (DOT)
SlikeI Environmental Corporation (T'Sou-ke First Nation)	AquaBounty Canada	Dashboard Marketing Inc.
Blue Lion Labs	Clear Seas	Marine Institute
Akvafuture Salmon	CarteNav Solutions Inc.	Fishermen & Scientists Research Society
BPE Technologies Inc.	Glamox Inc. (Canada)	Frobisher Energy Services Ltd
BIOSA Technologies	WSANEC Leadership Council	Gateway Geomatics
InPro Solutions	NEXUS Research and Development Ltd.	Genome Atlantic
Duggan International Group	National Research Council	Glas Ocean Electric Inc.
Algae-C	University of Waterloo	Genesis Group Inc.
Smartfin	Kettera Inc.	Ai Control tech
Spar Power Technologies Inc.	Scotia Harvest Inc.	Whitecap Scientific Corporation
Zayo Networks	Ionic Solutions	York University
Indigrow Business Management	Marine Thinking Inc.	Hardy Buoys Smoked Fish Inc
Plantee Bioplastics	Rimot	Sustainable Marine
Polar Marine Ltd.	Inclusify	Duxion Motors Inc.
Penney's Pitstop	Trademodo	Marine Renewables Canada
Fishing for Success	HydroSurv	Allswater Marine
C-FER Technologies (1999) Inc.	Infostrux Solutions	Chief Defence Contractors Inc.
CIDCO	SafetyNet Technologies	MDA Geospatial Services Inc.
Coastline Market Inc.	SeaChange Resources, LLC	MOWI
Cape Breton Partnership	Blockscale Solutions Inc.	OPAS Mobile
Compass Canada	Blumara Corp	
Copsys	Resource Innovations Inc.	
The Confederacy of Mainland Mi'kmaq		
Corporate Traveller		
Canadian Lidar and Mapping		

OSC MEMBERSHIP

Orbis Communications	Aspin Kemp & Associates Inc.	Cannabis & Hemp Innovation Centre Inc.
Engage Creative Technologies	Oceanex	Explor.AI
Missing Link Technologies	Thales Canada	Nunavut Literacy Council - Iilitaqsiiniq
Cougar Helicopters	SuBait Inc	TerraVerdae Bioworks Inc.
Lynker Analytics Limited	Kavacha	Crest Mold Technology Inc.
Ocean Diagnostics Inc	Forge Sombra Corporation	Total Marine Solutions
Hakai Institute	Nicom IT Solutions	MarineNav Ltd.
QVirt Labs Incorporated	MacArtney Canada Ltd.	Counterspil Research Inc.
Kognitiv Spark	Northeastern Microwave Inc.	Canadian Maritime Engineering (CME)
Eurofish SA	Pacific Coastal Computing Assn	Eimskip Canada Inc.
FREDSense Technologies	Dominion Diving	PSA Halifax LP
GeoSpatial Strategy Group Inc.	Nova Institute Inc.	Vector Solutions
Angler Solutions Inc.	Sea Smart	Enginuity Inc.
SeaChange Biochemistry Inc.	Aqua Forum	Spatialnetic Solutions Inc.
Nava Develop	Mebons	Venor Recruitment Ltd.
Sacred Seaplants	Valacap	Valent
Lighthouse Labs	International Dialogue on Underwater Munitions (IDUM)	Offshore Resources Pvt Ltd
Tidalis	qualiTEAS	Subsea 7
Maritech	The Center for Aquaculture Technologies	The Pinnguaq Association
Ocean Sonics	Deep Vision Inc.	SunRey Consulting
Canadian UAVs Inc.	New Brunswick Community College (NBCC)	Gr8Dane Outdoors
MetOcean Telematics Ltd.	AP Tech Solutions Inc.	Poseidon Ocean Systems Ltd.
Generix Group	Coanda Research and Development	McGill University
eDNAtec	Advanced Access Engineering	Sweeney International Marine Corp.
LeeWay Marine	Capilano Maritime Design Ltd.	Nova Scotia Business Inc. (NSBI)
Bluedrop Learning Networks	ROMOR Ocean Solutions	Frontier Subsea
Bluedrop Training & Simulation Inc	Canpac Marine Services Inc.	Manatee Holdings Ltd.
Radiant360 Solutions Inc.	Clean Valley CIC	Ocean Technology Council of Nova Scotia (OTCNS)
JASCO Applied Sciences (Canada) Ltd.	Myant Inc.	Seaspan Shipyards
Fugro GeoSurveys	ICTC - Information and Communications Technology Council	Waterford Energy Services, Inc.
3D Wave Design	Xerris Inc	Katchi Technologies
Merinov	Planetary Technologies	Umami Meats
ASL Environmental Sciences Inc.	Greenoil Solutions Limited	INTERNATIONAL-WATERS INCORPORATED
Technopole Maritime du Quebec	Mersey Consulting Ltd.	Stellar RHL Inc
CRIM - Centre de recherche informatique de Montreal	ORCA	Modest Tree Media
Turbulent Research	ECO Canada	Upstream Solutions
		IntelliReefs

OSC MEMBERSHIP

PF Collins International Trade Solutions

Acoustic Bait Technologies

Fisheries, Forestry and Agriculture NL

Aboriginal Community Career Employment Services Society (ACCESS)

B-Line

OUUTU

Clean Foundation

Ocean Set Inc.

Aquatec

NSERC

INREST

Devocean

VMG Strategic Technology

Nature's Way of Canada

AltoMaxx Technologies Inc.

St. Lawrence Global Observatory

Voyis

ShipReality Inc.

Orca Specialty Foods Ltd

RENK

Wilderness Tourism Association (BC)

Redrock Power Systems

GHGSat Inc

Upswing Solutions

Hatch

British Columbia Ferry Services Inc

Halifax Port Authority

SubC Imaging

DeNova Inc.

Maersk Supply Service Canada Ltd

College of the North Atlantic

Area52 Ltd.

AUSENCO Sustainability Inc.

Nanaimo Port Authority

ReelData Inc.

Indie Power Storage

Shifting Shap3s

Baseline Quebec

Edgewise Environmental Consultancy Ltd

The Virtual Forge

Aquafort AI Inc.

Sky Canoe Inc.

Venture for Canada

Katal

Training Works Inc.

Agyle Intelligence

Queen Charlotte Seafoods Ltd.

South Alberta Institute of Technology (SAIT)

Koolblock Inc.

Groundswell Group Inc.

Caron Hawco Group Inc.

Albion Marine Solutions Ltd

University of Prince Edward Island

Bennett Law

Atlantic Sea Cucumber Ltd.

Dynamic Systems Analysis (DSA)

Shift Environmental Technologies Ltd.

GreenLight Software

Index Biosystems Inc.

Cabot7

SEAMOR Marine Ltd.

Aker Solutions

Mara

Teem Fish Monitoring Inc.

NDC Fisheries Limited

ISM Arts & Culture

Bridge Gap Renewables

BDC - Business Development Bank of Canada

NAIA - Newfoundland Aquaculture Industry Association

Tiller Engineering Inc.

Tronosjet

BMT Canada Ltd.

Corvaxian Inc.

Visual Defence

Beyond Aerospace Ltd.

Smart Shores Inc.

GRF Structural Engineering Ltd

Maritime Survey Services Limited

ThisFish

AKSO Marine Biotech Inc.

Irving Shipbuilding

City of St. John's Municipal Council

Accuras Inc

Center for Entrepreneurship Education & Development

Natural Products Canada

COR Engineering Ltd.

BDO Canada LLP

Altair Engineering Canada Ltd.

Rockland Scientific International Inc.

BlueNode

Babcock Canada Inc.

Composite Mats Canada

Deep Trekker

In Nature Robotics

Marine Learning Systems

Canadian Centre for Fisheries Innovation (CCFI)

Hitech Communications

Nunacor Development Corporation

Deloitte LLP

Antrobus Consulting

Quantum Devices Corp.

Centre for Ocean Applied Sustainable Technologies (COAST)

Techydem

Palette Skills Inc

Always On UPS Systems

Drastic Scholastics Thermoplastic (DST)

Sma'knis Maritime Safety & Security Inc.

Stratcan

Vard Electro Canada

Trioca Energy

Oneka Technologies

Kryxtl-AI

A YEAR IN REVIEW

This year, Canada’s Ocean Supercluster set out to continue to build on its portfolio of innovative ocean solutions and the robust ecosystem needed to drive the significant growth it’s generating. Engaging with members and partners from coast-to-coast-to-coast, with a key focus on expanding collaboration, networks, and capacity in Canada’s ocean economy, the OSC reached the following key achievements:

AREA OF FOCUS	OBJECTIVES	OUTCOMES
<p>Expand collaboration:</p>	<ul style="list-style-type: none"> • Continue to raise awareness of OSC Technology Leadership projects and IP sharing opportunities through OSC events. • Continue to connect projects with similar areas of focus: facilitate opportunities for projects with similar areas of focus to connect and potentially identify additional collaboration opportunities. • Continue to raise awareness of project activities. 	<ul style="list-style-type: none"> • 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. • Ongoing working group meetings to discuss projects, project ideas and additional opportunities for collaboration, share ocean community updates and member updates. • Created Cluster Workforce Growth committee to advise on talent shortages and where there is opportunity for greatest impact. • Launched Two-Eyed Seeing Initiative to apply an Indigenous lens to all OSC projects and activity. • 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: <ul style="list-style-type: none"> • 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 where we received almost 900 feedback items that helped shape Ambition 2035 and the new OSC strategy. • Hosted various in-person and virtual events, such stakeholder engagement sessions, roundtables, business networking, project announcements and working groups. • 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.

A YEAR IN REVIEW

AREA OF FOCUS	OBJECTIVES	OUTCOMES
Expand networks	<ul style="list-style-type: none"> • Continue to engage internationally to raise awareness of Canadian capabilities and projects. • Continue to strengthen the network of ocean networks across the country: expanding key program participation across the country including the Ocean Allies Project and the Ocean Startup Project. • 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. 	<ul style="list-style-type: none"> • Membership increased to more than 500 with greater reach across Canada and internationally. • 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, in Iceland at the Arctic Circle Assembly, in Spain at Oceaninnovation, and expanding international relationships and brand presence. • Partnered in an aquaculture forum with the Canadian Aquaculture Industry Association to raise awareness of the Canadian economic opportunity in the aquaculture industry. • 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 co-branded materials. • Supported the pan-Canadian expansion of the Ocean Startup Project team and promoted the expanded reach of Ocean Allies Project activity. • 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 four regions in the top 35 with Atlantic Canada ranked 10th in this first edition.

INTERNATIONAL PARTNERSHIPS

- 
Port of San Diego | California
- 
GCE | Norway
- 
Forum Oceano | Portugal
- 
ELBE | Europe



A YEAR IN REVIEW

AREA OF FOCUS	OBJECTIVES	OUTCOMES
Expand capacity	<ul style="list-style-type: none"> • Build an increasingly inclusive ocean economy leveraging the data collected through the Ocean Allies Project: continue to look for opportunities for ocean employment for under-represented groups. • Upskill and reskill talent and create opportunities in the ocean economy: further Indigenous Career Pivot Project hires, further opportunities through the Blue Future Pathways Project, the Inclusive Workforce for Arctic Ocean Technology Project, and project activity through OLIP. • Expand on Atlantic Canadian “The Future of Oceans” pilot awareness program in junior high schools, the pilot will continue with a focus on West Coast school presentations. 	<ul style="list-style-type: none"> • The OSC hired five co-op students to increase OSC capacity and introduce more students to the opportunities in the ocean economy. • Supported the training of almost 1,000 youth through Blue Futures Pathways Project. • 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. Attendance was more than 125. • Artificial Intelligence call program launched in February 2023. • Published and launched “Ambition 2035” to provides a high-level overview of the ocean potential for Canada.
OSC 2.0 DESIGN	OBJECTIVES	OUTCOMES
Expand capacity	<ul style="list-style-type: none"> • Develop the strategy for OSC 2.0 designed around specific areas of focus in ocean innovation where Canada can lead globally, that also support Canada’s path to economic recovery, net-zero targets, and activities that help build a diverse ocean workforce. • Membership model changes will support the continued growth of this pan-Canadian network and increasing interest from international parties to engage directly with the cluster. 	<ul style="list-style-type: none"> • Informed following extensive stakeholder consultation, the OSC created a strategy 2023-2028 and beyond with more defined focus over its first mandate. It includes four guiding pillars for the OSC including Company Growth, Connected Ocean Network, Talent Retention and Attraction, and Global Ocean Brand, as well as four high-growth, key investment areas for technology leadership projects including Scaled Ocean Energy, Sustainable Seafood, Future of Transport, and Climate Solutions. • The OSC membership model changes were drafted in fiscal 2022 and later adopted and in effect.

KEY PERFORMANCE INDICATORS TO DATE

● Cluster Funding

● Projects

\$20M
in additional funding

SECURED FOR OCEAN PROJECTS THROUGH THE PAN-CANADIAN ARTIFICIAL INTELLIGENCE STRATEGY

\$125M
in renewed funding

SECURED FOR THE SECOND PHASE OF CANADA'S OCEAN SUPERCLUSTER THROUGH THE GOVERNMENT OF CANADA'S GLOBAL INNOVATION CLUSTER PROGRAM

80+ projects
IN FLIGHT



13 new projects
APPROVED IN 2022-23

24 new projects contracted
IN TOTAL WITH A
projects value of
\$400 million+

1.4:1 to private sector
FUNDING

KEY PERFORMANCE INDICATORS TO DATE

Partnerships/
Collaborators

Company
Growth

MORE THAN

300



PARTNERS ACTIVELY ENGAGED
IN **OSC projects**

MOST

OSC MEMBERS

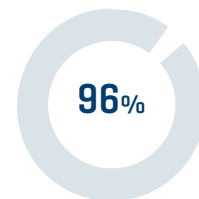
REPORT HAVING FORMED **NEW**
PARTNERSHIPS THROUGH
CLUSTER ACTIVITY

90 NEW

ocean startups supported



OF PROJECTS INCLUDE
SME partners



OF PROJECTS ARE
led by a SME

KEY PERFORMANCE INDICATORS TO DATE

● Training

● Jobs

3,000 internships

EDUCATION, TRAINING, AND MENTORING OPPORTUNITIES

made available for youth and Indigenous peoples

EXPLORING A CAREER IN OCEAN

5,000+ jobs

CREATED BASED ON

current project activity



ON TRACK TO CREATE

20,000
new jobs

BY 2030 BASED ON CURRENT TRAJECTORY

KEY PERFORMANCE INDICATORS TO DATE

Membership

Events

ACHIEVED

500+

member milestone

WITH 56 NEW MEMBERS ADDED

2022-2023 ANNUAL REPORT

 MEMBERS IN
9 PROVINCES
AND ONE TERRITORY

 **27**
international members FROM
9 DIFFERENT COUNTRIES

SIGNIFICANT INCREASE IN MEMBERSHIP IN
**British Columbia, Ontario
and Quebec**

1,200+

 attendees

AT VIRUTAL, HYBRID AND
IN-PERSON OSC EVENTS

MEMBER AND PARTNER
CONSULTATION EVENTS
DREW MORE THAN

400

 attendees

12

 working group meetings

4

 thematic events

FOR MEMBERS AND PARTNERS

VARIETY EVENTS, WEBINARS, AND WORKSHOPS
CO-HOSTED WITH OTHER CLUSTERS,
PARTNER ORGANIZATIONS AND WITH
THE TRADE COMMISSIONERS SERVICE.

WHAT MEMBERS AND PARTNERS ARE SAYING ABOUT THE OSC



“ Membership with the OSC opened new opportunities for business development at a critical stage of our growth. The OSC membership helped us find new clients, and the funding allowed us to advance our innovative smart coatings. It was a critical component that later helped us raise \$10M in a Series A round. “

Mo AlGermozhi

CEO & President, Graphite Innovation & Technologies (GIT)

“ As a member of Canada’s Ocean Supercluster we have been able to network with ocean minded companies and organizations. Together we were able to work towards common goals of training and talent development that will enable Indigenous community members to participate in the ocean economy. I am pleased the Ocean Supercluster is focusing on opportunities for and with Indigenous peoples and communities. “

Carolann Harding

CEO, SmartICE Sea Ice Monitoring & Information Inc.



WHAT MEMBERS AND PARTNERS ARE SAYING ABOUT THE OSC



“ The technology advances from OceanDNA System come at a time when we are facing a global biodiversity crisis and when generation of large-scale biodiversity data is most critical. NFA and DFO collaboration with eDNAtec and the support from the Canada’s Ocean Supercluster and ERINL have yielded new, practical tools and protocols that enable large scale eDNA sample acquisition by non-scientists. “

Steve Barrett
CEO, eDNAtec

“ Thanks to its strong support, Canada’s Ocean Supercluster is giving us the means to realize our ambitions for the development of utility-scale wave-powered desalination solutions. With our partners H2O Innovation and AF Theriault, these technologies will enable Oneka to address global water scarcity challenges and penetrate a much larger international market. “

Dragan Tutic
CEO of Oneka Technologies



PROGRAMS & PROJECTS

Technology Leadership Projects:

The end of this fiscal year and completion of the first mandate of Canada’s Ocean Supercluster saw 13 approved and 22 announced Technology Leadership projects. These projects encourage collaboration across sectors and regions. They involve ocean focused technologies with global market relevance that enable Canadian SMEs to de-risk scaleup activity, move towards digitally driven business models, and deliver world-leading solutions to ocean industries and consumers of ocean-derived products.

This year saw significant project activity across the OSC portfolio including the closing of some OSC projects, delivering strong outcomes and contributing to Canada’s advancing leadership in ocean, world-wide. Project milestone highlights include:

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
OceanVision \$20 Million OSC Funding: \$6.3 Million	Development of new underwater technologies and products that will support Robotics-as-a-service and predictive analytics business models	<ul style="list-style-type: none"> • Kraken Robotics • Energy Research and Innovation Newfoundland and Labrador (ERINL) • Nunavut 	Successful prototype testing of new sensor and system development, including the ThunderFish®, Multi-Spectral SAS, SeaVision®, and Launch and Recovery Systems.	KATFISH Autonomous Launch & Recovery System commercialized. 35 jobs created to support the project.
OceanAware \$20 Million OSC Funding: \$8.8 Million	Subsea monitoring of fish health, fish movement, and environment	<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 	With the newly developed AI powered fish counting system, the team can get accurate and real time counts through a fish passage system at White Rock Nova Scotia. The team developed a new digital signaling process that has substantially improved the performance of previous equipment. This product is instrumental to study the early mortality of salmon in the Gulf of St. Lawrence	Early trials found the tracking to be 90 per cent accurate in properly counting and identifying wild fish.

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>OceanDNA System \$4.9 Million</p> <p>OSC Funding: \$2.2 Million</p>	<p>DNA assessment, monitoring and characterization of the ocean</p>	<p>eDNatec Department of Fisheries and Oceans Canada ERINL Nunavut Fisheries Association</p>	<p>Through this partnership, the team has advanced biodiversity monitoring technology to revolutionize sustainable ocean management. The activities in this project focused on fisheries management, specifically tools for monitoring, measuring, and assessing fish stocks, but the results of OceanDNA will support applications across many ocean sectors and beyond.</p>	<p>Project is having commercial benefits including a standing offer from DFO for services.</p>
<p>Smart Protective Coatings \$6.2 Million</p> <p>OSC Funding: \$2.2 Million</p>	<p>Development of revolutionary graphene-based protective coating products for vessels</p>	<p>Graphite Innovation and Technologies Horizon Maritime Ltd Mitacs</p>	<p>Product has advanced and expanded securing new partnership opportunities in Canada and new international</p>	<p>Nine full-time jobs have been created since the beginning of the project with the company's workforce having grown 100 per cent since project inception. Testing shows a 20 per cent reduction in fuel consumption in small vessels, resulting in reduced emissions.</p> <p>Radiant noise reduced, reducing impact on ocean species.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>CoLab Enterprises \$3.0 Million</p> <p>OSC Funding: \$1.5 Million</p>	Enterprise-ready review and engineering communication platform	CoLab ERINL Kraken Genoa Government of NL	Project closed. The project team focused on improving their innovation and selling it more broadly for commercial benefit.	During the life of the project, CoLab also separately hired another 38 people, resulting in total employment growth of 341 per cent.
<p>Marine SAR Helicopter Mission Simulation \$2.1 Million</p> <p>OSC Funding: \$1 Million</p>	New hoist simulator training for search and rescue operators	Bluedrop Training and Simulation Cougar Helicopters Marine Institute of Memorial University of Newfoundland	Project closing. This project enabled Bluedrop to deliver a Marine SAR-focused Hoist Mission Training Simulator (HMTS) to Cougar Helicopters. The HMTS is a fully immersive virtual reality device that is used to train search and rescue personnel for various hoisting operations; adapted and configured for Cougar’s operating environment: the offshore, marine environment off the coast of Newfoundland.	Project creates safer and improved training opportunities for rescue teams operating in harsh environments.

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>XO-G2 \$3.4 Million</p> <p>OSC Funding: \$2 Million</p>	<p>Next generation uncrewed service vessel – faster, deeper and further offshore</p>	<p>XOcean ABC0 DMR Boat Design Ocean Floor Geophysics Fisheries and Oceans Canada</p>	<p>Project closing.</p> <p>This project developed a larger, faster and more capable USV test platform that allowed for the advancement of the industry and the acceleration of technology into a broader subset of markets. The lessons learned and expertise developed has supported the conceptualization of a towed sensor platform that has completed its first commercial projects in Q2 of 2023.</p>	<p>Reduction in emissions in surveying activity: the project has advanced the ability for uncrewed vessels to take on the same scopes as crewed vessels, yielding a 99% reduction of carbon emissions for every mission taken on by an XOCEAN USV.</p>
<p>CARIS Cloud Technology \$2.1 Million</p> <p>OSC Funding: \$944 K</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>Teledyne CARIS Ocean Floor Geophysics Fisheries and Marine Institute of Memorial University of Newfoundland and Labrador University of New Brunswick Ocean Mapping Group CIDCO H2i</p>	<p>Project closed.</p> <p>The CARIS Cloud Technologies project is successfully delivering innovation to remote hydrographic surveying operations and</p>	<p>This project delivered not only commercial benefits but also internal benefits through new skill acquisition for Canadian workers, researchers, and students.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Rutter Internet of Things \$3 Million OSC Funding: \$720 K</p>	<p>Remote monitoring as a managed service with specialty radar system data acquisition, and cloud-based storage and analytics</p>	<p>Rutter Inc Husky Energy NRC Government of Newfoundland and Labrador</p>	<p>Leveraging work completed under the Rutter IoT project, the team have successfully exported project deliverables into a new O&G customer that requires digitalization of their offshore assets and integration with data from other on-board vendors for real-time monitoring.</p>	<p>Four full-time software developer positions created, along with one student research position.</p>
<p>Digital Ship in-Service Support \$3.1 Million OSC Funding: \$2 Million</p>	<p>platform to help vessel designers, builders, operators and maintainers more efficiently manage vessel lifecycle</p>	<p>Genoa Design</p>	<p>project leveraged computer vision and scanning technology to semi-automate the sustainment of existing CAD models to more accurately reflect the As-built or In-service condition.</p>	<p>visualization environments like VR, MR and AR and onboard sensors that track equipment performance, this becomes a powerful tool for efficient and effective refit and repair operations for both new and legacy vessels.</p>
<p>Tallybot: Artificial Intelligence for Next Generation Seafood Processing \$1.1 Million OSC Funding: \$500 K</p>	<p>Next generation of seafood processing powered by traceability and production software focused on improved efficiency and quality</p>	<p>ThisFish Inc. Orca Specialty Food Hardy Buoys Smoke Fish Ltd McGill University York University Eurofish</p>	<p>As a result of the project, ThisFish Inc., has pioneered new innovations and become a market leader in the application of artificial intelligence (AI) in the global seafood industry. ThisFish developed the world's first yield prediction models for seafood processors, including a tuna cannery in Thailand and a salmon processor in Canada.</p>	<p>Project is providing greater transparency to the customer and quality assurance in fish processing.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Automated Pipeline Payload for Small AUVs \$1.7 Million</p> <p>OSC Funding: \$990 K</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>Voyis Ocean Floor Geophysics EIVA L3Harris Ocean Server Ocean Infinity</p>	<p>Project Closing.</p> <p>In this project, Voyis commercialized the first high-resolution optical survey payload for the L3Harris IVER4 AUV. The image colour enhancement algorithms developed through the project were also utilized on the renowned shipwreck surveys of the Endurance and Titanic.</p>	<p>This project represents a significant advancement in ocean technology, with its focus on developing sustainable and efficient solutions for underwater inspections by enabling advanced optical inspection from smaller platforms with smaller ecologically footprints.</p>
<p>Ocean Energy Smart Grid Integration \$975 K</p> <p>OSC Funding: \$634 K</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>BMT Sustainable Marine University of Victoria Rainhouse Turtle Island Innovation</p>	<p>A scale MIU was built by BMT and was tested in collaboration with TII at Canadian Hydrokintic Turbine Test Centre (CHTTC). A second round of testing at CHTTC was conducted to de-risk connection and communications between the MIU, batteries, and inverters.</p>	<p>Project is helping remote communities reduce reliance on diesel.</p>
<p>Miniaturized Sonar Transducers \$1 Million</p> <p>OSC Funding: \$565 K</p>	<p>Creation of a customized, miniaturized piezocomposite transducer direct to un-crewed platform developers</p>	<p>Sensor Technologies NorthEastern Micro Kraken Robotics Dr. Christopher Purcell</p>	<p>Through this project, the TRL level was increased from a 3 to a 7, with a defined path to further increase this TRL as the commercialization of this product begins.</p>	<p>Sensor Tech has 20 staff members engaged on this project working in collaboration with Kraken Robotics on</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Digital Offshore Canada \$11.3 Million</p> <p>OSC Funding: \$5.5 Million</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>ERINL Hatch Ltd MNP Virtual Marine GRI Simulations Memorial University of Newfoundland and Labrador</p>	<p>The DOC platform foundation build is underway including the Open Subsurface Data Universe (OSDU). Multiple simulator modules have been built including Lifeboat and Bridge and associated training programs underway. Robotic simulations for ROV, AUV, USV and aerial drone have been developed for subsea field modelling & operations.</p>	<p>Support operational efficiency and reduced environmental footprint, with a digital twin capability with applications across ocean sectors.</p>
<p>Project ORCA \$4.2 Million</p> <p>OSC Funding: \$2 Million</p>	<p>Develop Katal Green Fuel ahead of commercialization to reduce dependency on diesel and transition to low-carbon fuels</p>	<p>Valent Low Carbon Technologies Horizon Maritime Southern Alberta Institute of Technology Mitacs Deepsense Spearhead</p>	<p>On its journey to provide a path to cleaner air Katal has 1) developed drop in fuel treatment to reduce harmful diesel exhaust emissions 2) developed relationships with target customers, 3) developed relationships with vendors and suppliers 4) built demonstration plant to showcase solution to stakeholders in the OSC ecosystem.</p>	<p>Transitional fuel designed to provide an immediate solution to marine shipping for reduced emissions while longer-term, more carbon neutral solutions are developed for the future.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Advancing Smart Integrated Sensors \$3.6 Million</p> <p>OSC Funding: \$1.9 Million</p>	<p>Bringing state-of-the-art ocean environmental monitoring sensors into the ocean's autonomous platforms</p>	<p>RBR Dalhousie University Fisheries and Oceans Canada</p>	<p>RBR is close to releasing a stable pH sensor that will be suitable for ocean acidification research.</p> <p>The team have implemented a new microprocessor, and microSD cards into their logger hardware which will give the ability to increase sampling speeds and data storage for customers.</p>	<p>The project's inductive conductivity cell design can now be successfully manufactured to stay within the ARGO specifications to a depth of 6000m, making RBR the second manufacturer to produce a salinity sensor to this specification in the world.</p>
<p>Field Validation Energy Storage System \$4.3 Million</p> <p>OSC Funding: \$2 Million</p>	<p>Developing an energy- dense multi- megawatt hour battery-based to introduce to marine industries</p>	<p>Corvus Energy Seaspan Ferries VARD Marine BC Hydro UBC Wartsila</p>	<p>The new Blue Whale battery allows Seaspan Ferries to perform engine load optimizations, without sacrificing vessel speed, resulting in higher efficiency operations and minimizing the requirement of dual generator operations.</p> <p>According to the engine performance data collected by UBC, Seaspan Ferries the Corvus Blue Whale ESS resulted in 3 tons of CO₂e per round trip sailing.</p>	<p>23 direct jobs retained, and an estimated 50 indirect jobs at local suppliers.</p> <p>Contribution of a solution for significant reduction of marine shipping GHGs by working towards the electrification of large vessels, such as ferries possible.</p>

TECHNOLOGY LEADERSHIP PROJECTS

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TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Port Integration and Enhancement of Data \$3.8 Million OSC Funding: \$1.1 Million</p>	<p>Develop technology to enhance the ability to collect ocean data and facilitate more effective and efficient ocean operations</p>	<p>Bluenode Halifax Port Authority Saab NRC</p>	<p>The PIED project advanced the core offering of BlueNode which was hardened to create an enhanced product, which will gain market traction. Further testable models were developed to expand the commercial viability of the product.</p>	<p>BlueNode is seeking to hire additional developers and has recently employed a new technology lead and anticipates two new positions in late spring 2022.</p>
<p>Autonomous COMPASS \$3 Million OSC Funding: \$1.6 Million</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 vehicle</p>	<p>Sensor Tech Kraken Robotics 3D Wave Design</p>	<p>Despite the numerous challenges surrounding procuring parts during COVID, Sensortech were able to complete to support their new product line – Thin Line Towed Arrays, a first of its kind in Canada</p>	<p>Three jobs have been created throughout the project.</p>
<p>Fishless Marine Microbial Fish Oil Project \$3.5 Million OSC Funding: \$2 Million</p>	<p>Develop an algal nutritional oil that fully mimics and complements the health benefits of fish oil consumption</p>	<p>Mara Acadia University Algorithm Ingredients Nature’s Way of Canada</p>	<p>The Mara Research and Innovation Team completed experiments to ship a first, customer-prototype, pilot-scale volume of a novel algal oil for processing and</p>	<p>Project lead, Mara announced raise of \$39.5M in growth equity.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Tech Companion \$2.2 Million</p> <p>OSC Funding: \$1.1 Million</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>Modest Tree RENK Microsoft Canada Mitacs</p>	<p>Tech Companion is a software platform that acts as a single-access point for all enterprise data for field workers who operate and maintain complex assets and brings together digitalized work instructions, 3D visualizations of procedures and AR enabled remote support.</p>	<p>Approximately 35 staff members from Modest Tree are engaged on this project in collaboration with their commercialization partner RENK.</p>
<p>Sustainable Protein for Aquaculture Project \$6 Million</p> <p>OSC Funding: \$2.6 Million</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>Denova The Center for Aquaculture Technologies Canada Natural Products Canada Dalhousie University NRC ACOA Cooke Aquaculture</p>	<p>DeNova’s successful fish feed research trial and technology breakthroughs achieved in this project have resulted in more customer and investor attention, made possible by collaborations that have endured beyond the project.</p>	<p>Five full-time positions have been created for this project developing a circular economy solution.</p>
<p>Split Pm Hybrid Propulsion Motor Project \$1.8 Million</p> <p>OSC Funding: \$1 Million</p>	<p>Hybrid diesel-electric system making the hybridization of existing vessels more affordable while also reducing carbon footprint</p>	<p>DuXion Aspin Kemp & Associates</p>	<p>The project completed scaled prototyping. The prototype is built and spin tested.</p>	<p>Three jobs were created through the project. A hybrid solution designed to help reduce emissions in marine shipping.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Tech Companion \$2.2 Million</p> <p>OSC Funding: \$1.1 Million</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>Modest Tree RENK Microsoft Canada Mitacs</p>	<p>Tech Companion is a software platform that acts as a single-access point for all enterprise data for field workers who operate and maintain complex assets and brings together digitalized work instructions, 3D visualizations of procedures and AR enabled remote support.</p>	<p>Approximately 35 staff members from Modest Tree are engaged on this project in collaboration with their commercialization partner RENK.</p>
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TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Unmanned Digital Twinning Project \$812 K</p> <p>OSC Funding: \$320 K</p>	<p>Digital twinning of underwater infrastructures without the need for external specialists working in remote offshore locations</p>	<p>Welaptega Marine / Ashtead Technology (Canada) Limited</p> <p>Whitecap Scientific</p> <p>SubC Imaging</p> <p>Nova Scotia Community College SEATAC division</p>	<p>The product created through the 'Unmanned Digital Twinning of Subsea Assets' project is well on its way to being a world class underwater 3D imaging system, enabling digitization of underwater structures without the need for specialist personnel. The system dubbed "ROV3Di" - 'i' for 'intelligent' - is undergoing further field tests and refinement, and has commercial projects booked for 2023.</p>	<p>The project has created two full-time equivalent positions and will maintain four full-time equivalent positions through completion and commercialization. Over the next five years, it is expected the product will generate \$15-20 million in incremental revenue.</p>
<p>Marine Safety Training Online Project \$1.8 Million</p> <p>OSC Funding: \$695 Million</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>Virtual Marine Survival Systems Training Limited</p> <p>Memorial University of Newfoundland and Labrador</p>	<p>The number of worldwide users for the Virtual Marine online learning platform has been increasing steadily and has surpassed the 1000 user milestone. This positive momentum demonstrates that the project team's strategy to digitize traditional classroom materials into interactive and engaging online learning course material has been successful.</p>	<p>Increased safety and training opportunities for offshore workers that is accessible from anywhere.</p> <p>Delivery of both basic and advanced Polar Code training at the Canadian Coast Guard College (CCGC) using a Desktop Bridge Simulator.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>BridgeVUE Project \$403 K</p> <p>OSC Funding: \$170 K</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>Engage Creative Technologies</p> <p>Mitacs</p> <p>Fisheries and Marine Institute of Memorial University of Newfoundland and Labrador</p> <p>ERINL</p> <p>Rutter</p> <p>Robot Interactive + Marketing</p>	<p>The bridgeVUE team worked collaboratively alongside experts at Rutter and the Marine Institute to learn what was required to bring bridgeVUE to a commercially ready state. The result of this OSC project was tremendous. The commercially ready bridgeVUE system was purchased by the Royal Canadian Navy..</p>	<p>Engage Creative Technologies awarded a \$1.2M contract with Canadian Navy for BridgeVUE work in early 2022.</p>
<p>Real-Time Bubble Diffuser Aeration Entrainment Monitor Project \$500 K</p> <p>OSC Funding: \$324 K</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>ASL Environmental</p> <p>MOWI Canada West</p>	<p>A prototype is being bench tested with display software development underway.</p>	<p>Contributing to sustainable aquaculture operation capabilities as well as reduced emissions.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>HydroSpark Project \$866 K</p> <p>OSC Funding: \$395 K</p>	<p>Ocean data and collaboration application to visualize underwater environments in 3D mixed reality to support training, mission planning and rehearsal, and support defence and other marine sector underwater operations</p>	<p>KognitivSpark Kraken UNB NBCC</p>	<p>Following extensive development during the project, in February 2023, Kognitiv Spark launched its new RemoteSpark mixed reality communication platform which allows operators to access mission focused data repositories directly, enabling a new interactive environment. Utilizing this platform, project HydroSpark/ HydroXR, has enabled a mixed reality operational support solution to enhance situational awareness, decision making and mission preparation for military, critical infrastructure security and commercial underwater operations</p>	<p>Establishment of the University of New Brunswick's Spatial Computing Education, Training and Research Laboratory to explore further applied research in this field.</p>

TECHNOLOGY LEADERSHIP PROJECTS

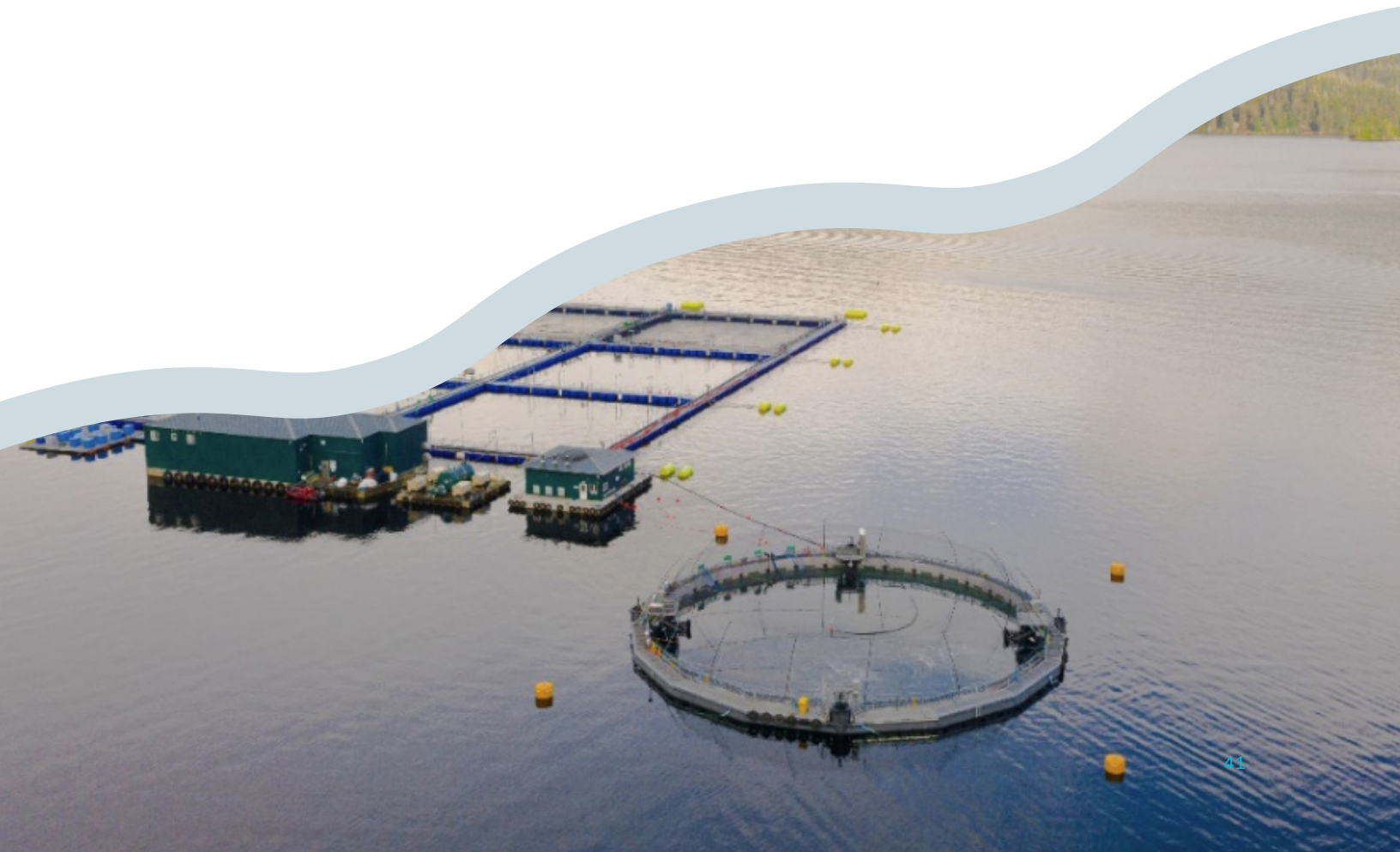
PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>GeoScan Project \$3.3 Million</p> <p>OSC Funding: \$2 Million</p>	<p>A solution to de-risk offshore wind, oil and gas, and other offshore installations by implementing wider scanning functions in underwater robotic systems</p>	<p>PanGeo Subsea (Kraken Robotics)</p> <p>Cellula Robotics</p> <p>The Fisheries and Marine Institute of Memorial University of Newfoundland and Labrador</p>	<p>The innovative cellular stitching development has led to new commercial applications, only possible through the OSC project. Recent multi-core AC surveys within the Baltic Sea and Gulf of Mexico proved that merging individual cellular data sets into a unified volume greatly enhanced the data resolution and understanding of the sub-seabed stratigraphy, geohazards, and obstructions.</p>	<p>Eight new hires since the beginning of the project, including roles that dedicate a portion of their time to support the project in marketing, business development, sales, learning, and software quality assurance.</p>
<p>ROC Fishing System Project \$1.3 Million</p> <p>OSC Funding: \$650 K</p>	<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>Ashored Inc</p> <p>ESonar Inc.</p>	<p>Project partners, working together, have developed new technology to support Canadian harvesters access to world lobster and crab markets sensitive to species at risk concerns. The new technology developed allows the float and its line to stay with the trap until acoustically commanded to release by the fisherman. This technology is being adopted by multiple countries as part of Species at Risk initiatives and will soon be the only consumer acceptable means to harvest shellfish in the world.</p>	<p>The project lead hired a full-time Director of Communications.</p> <p>Contributing to reduced entanglements of species such as the endangered Right Whale, and reduced ghost gear at sea.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Offshore Connected Worker Project \$3.1 Million</p> <p>OSC Funding: \$1.3 Million</p>	<p>The implementation of Connected Worker (CW) technologies in remote offshore operations, reducing risk and adding value to ocean companies</p>	<p>Horizon Maritime Allswater Marine ShipReality Inc VMG Strategic Technology Rimot C-CORE Kognitiv Spark Kinduct Government of NL</p>	<p>To date, the project team has integrated applications and data from each participant, for example, vessel motion characteristics combined with crew bio-metric data for health and wellness monitoring.</p>	<p>Eight companies are collaborating on this project to integrate technologies that will increase safety of offshore workers using digital technologies.</p>
<p>Ocean Solutions for Immune Boosting Project \$2.3 Million</p> <p>OSC Funding: \$520 K</p>	<p>A clinically proven novel human health product with benefits in warding off infectious diseases made from Atlantic Sea cucumber</p>	<p>AKSO Marine Biotech inc. Atlantic Sea Cucumber Ltd Fisheries and Oceans Canada NRC PEI Bio Alliance</p>	<p>The project has made significant progress in the past year on the development of a value-added product from Atlantic Sea cucumber. The AKSO team has successfully prepared a novel formula from the Atlantic Sea cucumber, which has potential applications in the health and wellness sector. The team has also conducted preliminary market research and identified several potential customers and partners for their product.</p>	<p>Human health benefits including immune boosting claim.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Precision Fish Harvesting Project \$3.3 Million</p> <p>OSC Funding: \$1.5 Million</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>Katchi Scotia Harvest Inc. ABCO Industries Rimot Clearwater DSA Ocean Rising Tide Bioacoustics SafetyNet MITACS</p>	<p>Sea trails are underway to test net and monitoring equipment</p>	<p>Alternative trawling technology solution allows for reduced impact on ocean environment.</p>
<p>Project Sentry \$6.2 Million</p> <p>OSC Funding: \$3 Million</p>	<p>A remote aquaculture monitoring solution using in- cage remote operated and autonomous vehicle technology</p>	<p>Deep Trekker Visual Defence Inc.</p>	<p>The Project Sentry team continues to train and test new models, focusing on classification-type models that allow them to minimize false detections.</p>	<p>Contributing to sustainable aquaculture operation capabilities as well as reduced emissions.</p>



TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>AROWIND Project \$6.7 Million</p> <p>OSC Funding: \$2.9 Million</p>	<p>An uncrewed surface vessel (USV) based subsea inspection solution for offshore windfarms</p>	<p>Voyis Deep Trekker HydroSurv Unmanned Survey Inc. EIVA Sonardyne</p>	<p>The project has accomplished several noteworthy milestones as it progresses towards the final goal of fully autonomous and remote offshore wind inspections, including the commercialization of the Voyis Discovery Camera for advanced 3D inspection, enhancements to the DeepTrekker Revolution vehicle relating to autonomous piloting, a powered tether, and a launch platform, and a new HydroSurv uncrewed surface vessel capable of autonomously deploying the inspection solution.</p>	<p>Four jobs in engineering, software and project management created across three companies.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Coastal Incident Management System Project \$10.5 Million</p> <p>OSC Funding: \$4.4 Million</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>Shift Environmental Slikel Environmental Corporation Saab Technologies BlueNode The Canadian Coast Guard Western Canada Marine Response Corporation (WCMRC)</p>	<p>Shift's key success was achieved while hosting our first public CIMS demonstration in September 2022; an event that allowed us to build relationships with a remarkable set of key stakeholders including First Nation leaders, ISED representatives, EDC, OSC, Canadian Coast Guard including the Deputy Commissioner, Environment and Climate Change Canada, Transmountain leadership, and Western Canada Marine</p>	<p>This collaboration has facilitated Saab hiring four people to support their activities, while BlueNode has brought on one person to support their activities. This technology allows for communities to act in the first line of response to environmental spills and mitigate risks to their shorelines and waterways.</p>
<p>Intergrated Operations and Real-Time Analytics \$27 Million</p> <p>OSC Funding: \$11.9 Million</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>Grieg Seafood Newfoundland Innovasea SubC Imaging AKVA Group High-Tech Communications</p>	<p>This partnership with and has markedly reduced the risk to the fish at the sea sites with the Innovasea sensors and increased the overall safety of the Marine team with real time communications.</p>	<p>SubC and Innovasea have 30+ staff engaged in technology development for this project.</p> <p>Site approvals for cell tower infrastructure that will serve surrounding area achieved by Grieg NL and will improve connectivity for the area overall</p>

TECHNOLOGY LEADERSHIP PROJECTS

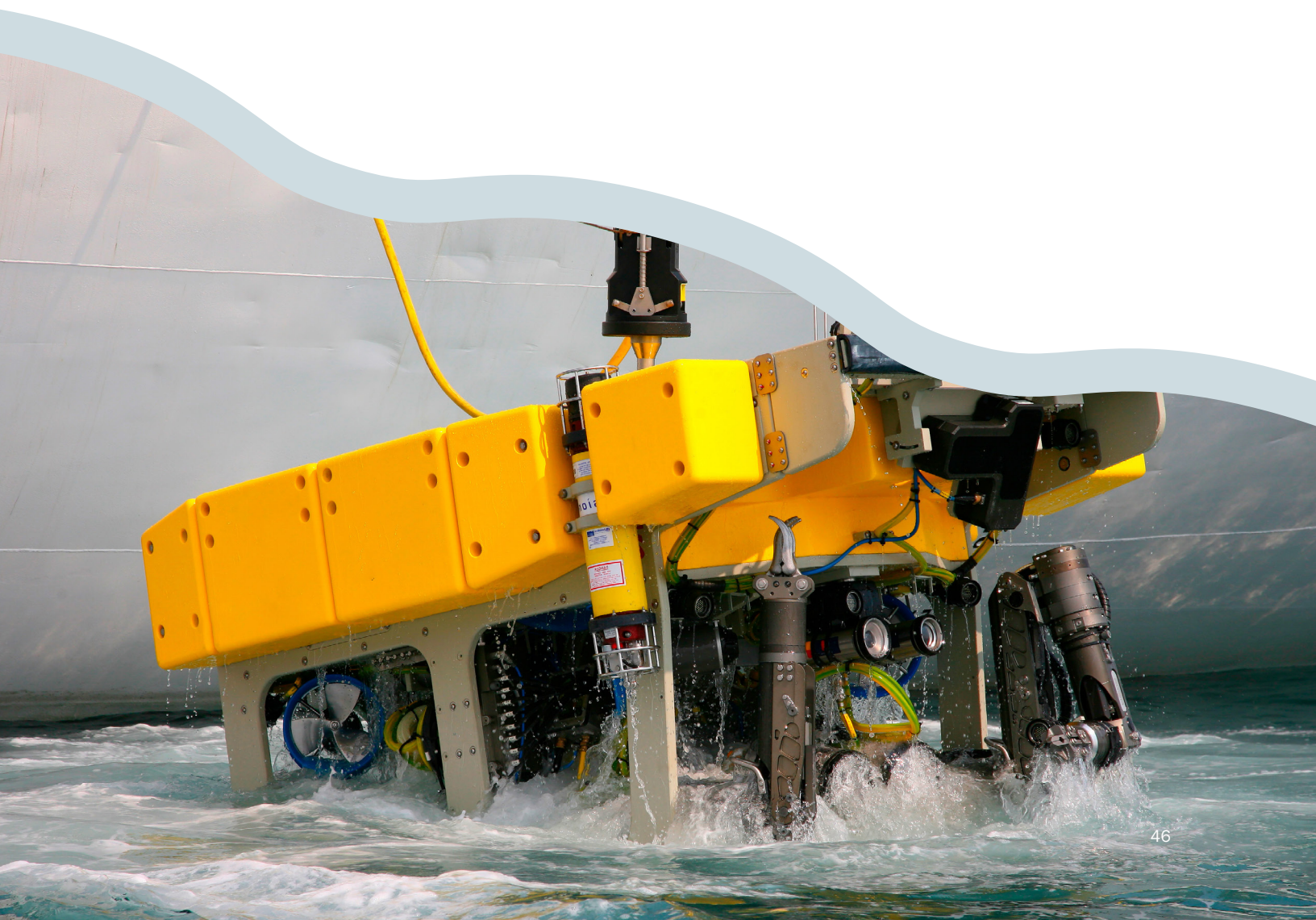
PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Clean Ocean Advanced Biofuels Project \$65 Million</p> <p>OSC Funding: \$6.5 Million</p>	<p>A renewable diesel from abundantly available agricultural and forestry by-products</p>	<p>Valent Low Carbon Technologies</p> <p>FORGE Hydrocarbons</p> <p>Mara Renewables</p> <p>Clearwater</p> <p>Katal Energy</p> <p>Horizon Maritime</p> <p>Sustainable Development Technology Canada</p>	<p>The Clean Oceans Advanced Biofuels Project trials have demonstrated that Mara's proprietary fermentation process can successfully convert algal oils into fuel grade lipids for the large-scale production of FORGE renewable fuels. This collaboration project has already proven to be invaluable in the development of low-carbon intensity renewable fuels.</p>	<p>Canada's first renewable diesel from agricultural and forestry by-products.</p>
<p>Mobile Storage and Multi-Modal Live Haul of Aquatic Animals \$1.7 Million</p> <p>OSC Funding: \$830 K</p>	<p>A mobile seafood storage system that controls and manages the storage and transport environment</p>	<p>Ship Nature's Way Inc.</p> <p>GIS Gas Infusion Systems Inc.</p> <p>Ocean Perfect</p> <p>Huntsman Marine Science Centre</p> <p>Pabineau First Nation</p> <p>Kingsclear First Nation</p> <p>Current Water Technologies Inc.</p>	<p>Through this project, Ship Nature's Way Inc. has made significant advancements with the development of a novel system for mobile storage (MS) and multi-modal live haul (MMLH) of seafood. A certification program to provide an attestation to the market of the quality, welfare, and provenance of fish supplied using the new MS and MMLH systems was also developed.</p>	<p>Humane transport of live seafood ensuring animal welfare and product quality.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Crowdsourced Wind Maps Project \$1.8 Million</p> <p>OSC Funding: \$536 K</p>	<p>Connected wind sensors on boats to display crowdsourced wind zones to aid in navigation and route-planning</p>	<p>Canadian Yachting Media IIC Technologies Navcast Inc. MarksetBot McBride Racing Storm Glass Weather Tactic</p>	<p>This project has been focused on the continued development of cloud infrastructure and product design.</p>	<p>Users on a vessel of any size will know that when deciding to head out you always need to know if the water is safe, which way is the wind blowing, how are the waves, and if you will be able to arrive safely.</p>
<p>C-MASS Project \$6.3 Million</p> <p>OSC Funding: \$1.7 Million</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>Compusult Ltd StrobelTEK Spiri Robotics PicSea Canada Ltd. CogNova Technologies Government of Nova Scotia Resolve Robotics</p>	<p>The project partners have all made significant advances in the Uncrewed Autonomous Systems and associated technologies, which will be deployed for real world testing during the summer and fall of 2023.</p>	<p>The project will not only have commercial benefits, but the data collection can benefit virtually all marine industries.</p>
<p>Adaptive Microlearning Technology Project \$5 Million</p> <p>OSC Funding: \$1.9 Million</p>	<p>A comprehensive tool for Fatigue Risk Mitigation in marine organizations by leveraging combined advancements in biometrics, environmental data, and microlearning</p>	<p>Training Works Compusult Ltd. Altera Infrastructure Qikiqtaaluk Corporation Fisheries and Marine Institute of Memorial University of Newfoundland</p>	<p>Efforts continued to complete development of Web Enterprise Suite (WES) SensorHub software and Skilltinuous platform. Training Works began the Participant Recruitment process and communicated the value of the project as well as the Execution Plan to support Project Development and Deployment.</p>	<p>This project aims to make offshore work safer.</p>

TECHNOLOGY LEADERSHIP PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Oneka Glacier Project \$14.1 Million OSC Funding: \$6.7 Million</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>Oneka H2o Innovation A.F.Theriault & Son Ltd</p>	<p>At the same time as advancing the design of the team's Glacier buoy, which will supply water to the municipal and large coastal industry markets, the team have established a pied-à-terre at the Centre for Ocean Ventures and Entrepreneurship (COVE) in Nova Scotia, close to the Glacier project installation site.</p>	<p>This project has the potential to bring affordable clean water solutions to communities in need.</p>



INNOVATION ECOSYSTEM PROJECTS

Innovation Ecosystem projects focus on developing new collaborations across the ecosystem, building on strengths, and integrating capabilities from across the national network to support start-ups, SMEs and ocean stakeholders in Canada and internationally. This year saw significant project activity across the OSC portfolio including the closing of some OSC projects, delivering strong outcomes and contributing to Canada's advancing leadership in ocean, world-wide. Project milestone highlights include:

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
Ocean Startup Project \$7.1 Million OSC Funding: \$4 Million	Increase the number of high-quality, ocean focused startups thriving in Canada	Genesis Creative Destruction Lab (CDL) Innovacorp New Brunswick Innovation Foundation PEI BioAlliance Springboard Atlantic	The Ocean Startup Project funded and supported almost 100 new or early-stage startups and raised awareness with countless Canadians about the massive opportunity in the ocean sector through Ocean engage activities	Collectively raised \$7.5M in nondilutive funding and over \$8.5M in equity investment for companies involved in OSP initiatives. 73 FTE jobs created six Ocean Startup Challenge winners participated in Creative Destruction Lab.
Vitality \$4.4 Million OSC Funding: \$1.5 Million	Advancing ocean data analysis, management and visualization capabilities, and products	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	The project resulted in 11 new training materials developed, 137 students, 20 in- situ workers, 12 Indigenous communities, and more than 1000 unique individuals received training on key data skills critical to the ocean sector. The project conducted three case studies centered on emerging and data- heavy ocean sectors, specifically aquaculture, tidal power, and offshore wind and wave energy generation. Project has recently completed and awaiting Final Project Report.	Shared ocean data registry in Canada.

INNOVATION ECOSYSTEM PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Inclusive Workforce for Arctic Ocean Technology \$1.8 Million</p> <p>OSC Funding: \$1.2 Million</p>	Develop technical skills training for Inuit participants across Inuit Nunangat	<p>SmartICE</p> <p>Pinnguaq Association</p> <p>Nunavut Fisheries Association</p> <p>Social Research & Demonstration Corporation</p>	<p>Curriculum components from the project are complete. Upskilling of SmartICE regional operations took place in Winter of 2022 alongside the curriculum iteration phase.</p> <p>Project closed.</p>	Community based training resulting in skills development and increased safety for activity on ice.
<p>Ocean Allies \$420 K</p>	Access, engage, and support a diverse ocean economy	<p>Pisces Research Project Management Inc.</p> <p>Huntsman Marine Science Centre</p> <p>Perennia Food & Agriculture</p>	<p>Project closed and in second iteration (see Ocean Allies 2.0).</p> <p>Project resulted in 'Navigating Change' report, training, mentoring, events and more.</p>	Diversity in the ocean sector supports Industry growth and sector innovation. Ocean Sector becomes an attractive place for diverse workers. SME employers able to hire and retain diverse employees.
<p>Blue Futures Pathways \$2.4 Million</p> <p>OSC Funding: \$1.5 Million</p>	Building capacity, providing mentorship and support for youth (aged 18-30 years old) to pursue a career in ocean sectors	<p>Students on Ice (SOI) Foundation</p> <p>ECO Canada</p> <p>Institute for Ocean Research Enterprise/ Centre for Ocean Ventures and Entrepreneurship (IORE/COVE)</p> <p>MITACS</p>	<p>The 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 closed.</p>	Blue Future Pathways is helping create a robust Canadian blue economy workforce of tomorrow.

INNOVATION ECOSYSTEM PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Indigenous Career Pivot Pilot Project \$740 K</p>	Facilitate and support meaningful work placements for Indigenous peoples wishing to explore career options in the ocean economy	<p>Ulnooweg Development Group</p> <p>Joint Economic Development Initiative</p> <p>College of the North Atlantic</p>	<p>Project resulted in 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>Project closed.</p>	Seven Indigenous participants secured full-time employment with an OSC member. OSC employers received a wage reimbursement of 70 per cent to support the hire. Eight participants improved their employability through professional development.
<p>Crisis Intervention & Operability Analysis for Digital Ocean Operations (CRIOP- DO) Project \$471 K OSC Funding: \$94 K</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>Energy Research & Innovation Newfoundland and Labrador (ERI), NRC</p> <p>Lloyd’s Register</p> <p>Atlantic Towing</p> <p>MUN</p> <p>SINTEF (the Foundation for Scientific and Industrial Research at the Norwegian Institute of Technology)</p>	The work undertaken in Phase 1 of the CRIOP-DO project identified the existing, established, internationally applied CRIOP Methodology as suitable for use by Canada’s Ocean Industries.	Increasing Canada’s competitive advantage in the field of autonomous and remote ocean operation.
<p>Ocean Allies 2.0 \$1.1 Million OSC Funding: \$750 K</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>Pisces Research Project Management</p> <p>Huntsman Marine Science Centre</p> <p>Perennia</p> <p>A roster of ocean partners</p>	<p>NSCC contracted and began development of online DEI training modules. The Career Pivot Program criteria developed and promoted with recruitment in summer 2023.</p> <p>The mentorship platform is nearing completion, live launch summer 2023. The project’s Speaker Series has begun. The Awards database has been updated.</p>	Diversity in the ocean sector supports Industry growth and sector innovation. Ocean Sector becomes an attractive place for diverse workers. SME employers able to hire and retain diverse employees.

INNOVATION ECOSYSTEM PROJECTS

PROJECT	OBJECTIVE	COLLABORATORS	OUTCOMES ACHIEVED	BENEFITS TO CANADA
<p>Indigenous Career Pivot Pilot Project \$1 Million</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>Clear Seas Centre for Responsible Marine Shipping British Columbia Institute of Technology College of the North Atlantic Aboriginal Community Career Employment Services Society</p>	<p>The program led to 11 placements nationwide - three 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 is complete, and support, resources, and training has been provided to all participants.</p>	<p>This project helps bring Indigenous participants into meaningful ocean careers while helping to bridge the gap of Indigenous and western knowledge systems</p>
<p>Blue Mentorship and Leadership Pathways \$920 K OSC Funding: \$460 K</p>	<p>Developing mentorship and leadership pathways through mentorship matching, a blue economy mentorship toolkit, and seminars in the DEI space</p>	<p>ECO Canada COVE College of the North Atlantic JEDI Future Skills Centre</p>	<p>The curriculum for mentors and mentees is complete. Mentorship and mentee onboarding has begun for pairing and partnerships. Three seminars have been delivered.</p>	<p>This project helps ensure that women, Indigenous participants, and other visible minorities have access to career advancement and new</p>
<p>Two-Eyed Seeing Initiative \$220 K</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>SOAR Professional Services Indigrow Business Management Dillon Consulting</p>	<p>Gap Analysis completed on OSC funding programs, policies and strategies with</p>	<p>Project is working towards meaningful Indigenous participation in Canada's ocean economy,</p>

INTELLECTUAL PROPERTY & DATA

IP Strategy

The OSC continued to successfully implement its Intellectual Property (IP) Strategy with significant activity in the 2022-23 fiscal year. Through a well-defined process that emphasizes fairness and open communication, the IP Strategy ensures the protection of intellectual property rights while promoting collaboration and the exploitation of IP beyond project consortiums. In support of the latter strategic objective, the past fiscal year also saw the launch of a member-accessible IP Registry cataloguing IP assets generated through Technology Leadership projects. As TL projects close out, IP assets are published to the IP Registry on a rolling basis to promote future exploitation of IP beyond projects in accordance with the overall OSC IP Strategy.

No changes were made to the OSC's IP Strategy, and it operated as intended over the past year to support the objectives of the organization. The Intellectual Property Strategy has been bolstered with the addition in the last quarter of a dedicated Director for Intellectual Property who holds Patent Agent designation with the College of Patent and Trademark Agents (CPATA) and whose mandate is to drive greater activity and clarity in the implementation and delivery of the OSC IP Strategy

IP Activity

In the last fiscal year, twenty-one Technology Leadership projects were contracted and launched with project partners contributing 127 Background IP assets into projects and 99 Foreground IP assets anticipated to result from project-related activities. Background IP assets are being shared amongst project consortium partners at least for research purposes to facilitate knowledge transfer and the development of integrated solutions to address global market opportunities.

To the best of our knowledge, there have been no instances where Foreground Intellectual Property has not been included on the member-accessible IP Registry.

There have been no member disputes related to Intellectual Property in the past fiscal year, either in respect to ownership of Foreground Intellectual Property or access to Foreground Intellectual Property.

The OSC continued to support, participate in, and co-promote the delivery of IP-specific webinars to the broader membership in partnership with the other four Global Innovation Clusters. For example, the OSC teamed up with Protein Industries Canada (PIC) and the other clusters to co-promote and deliver a webinar titled “What the heck is an Industrial Design?” for members to better understand how industrial design protection can be leveraged as a strategic asset in an organization's IP toolkit.

During the past fiscal year, the OSC continued to provide IP advisory support to SME project teams through direct consultation as required. At a minimum, 26 SME Members interacted directly with the OSC's IP Manager to access independent advice and project-related support in respect of their Intellectual Property. For the twenty-one Technology Leadership projects contracted during the past year, the OSC's IP Manager conducted a detailed review of the IP Rationale for each project during the full project proposal stage to ensure proper consideration was given to the protection, use and sharing of intellectual property (to promote a successful collaboration) amongst project teams.

In alignment with the OSC IP Strategy, particular attention was placed on the ownership of and access to Foreground IP anticipated to be generated through project activities.

INTELLECTUAL PROPERTY & DATA

Data Strategy

The OSC continued to successfully employ its Data Strategy in the 2022-23 fiscal year.

No changes or updates were made to the OSC's Data Strategy, and it operated as intended to support the objectives of the organization. Many OSC projects also have commitments for data sharing aligned to our previous and current corporate strategy.

A prototype Data Registry is under development to ensure functionality and future usability based on recommendations from the OSC's Vitality Project.

The OSC's Data Strategy defines the OSC's approach to protecting network and data security and employees are also required to commit to confidentiality of information as part of their employment.



COMMITMENT TO EQUITY, DIVERSITY, AND INCLUSION

The OSC strives to be an equitable, diverse and inclusive organization through the assessment and modification of policies, processes, and communications as identified in its Equity, Diversity, & Inclusion (ED&I) Plan.

The OSC acknowledges that to be a national leader in a sustainable ocean economy, we must have the most inclusive, diverse, and equitable business environment and processes and encourage our members to practice the same. The OSC is proudly participating in the Government of Canada's 50-30 Challenge, and is committed to promoting, fostering, and investing in Equity, Diversity and Inclusion in Canada's ocean economy.

To strengthen ocean sector capacity, address the limited pool of available talent and remain competitive, Canada's Ocean Supercluster is co-investing to attract and develop talent, spur innovation and focus on digital solutions by creating a more diverse and inclusive ocean ecosystem.



In the 2022-2023 fiscal year, the OSC:

- 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.
- Launched second iterations of ED&I-related projects, Ocean Allies, and the Indigenous Career Pivot Program.
- Launched new projects working to bridge the ED&I gaps in Canada's ocean economy, including Blue Futures and Leadership Pathways and the Two-Eyed Seeing Initiative
- Conducted internal training sessions around ED&I-related topics, including inclusivity and Indigenous knowledge.
- Increased expectations and requirements for projects to support ED&I

INDIGENOUS PARTNERSHIPS AND ENGAGEMENT

Canada's Ocean Supercluster continues to champion the inclusion and reconciliation of Indigenous Peoples in Canada through its ocean programs.



This year saw a national rollout of the **Indigenous Career Pivot program** with a cohort of eight participants in British Columbia completing a sea-farer training program. Seven of these participants were successfully matched with ocean going companies. In addition, two other positions were created in Nova Scotia and Newfoundland. This second iteration of the program introduced “wrap-around” supports to help Indigenous participants offset living expenses while in the training program.

Recognizing the pace at which climate change is impacting the Arctic and the role ocean innovation can play, the OSC Innovation Ecosystem team also undertook an engagement exercise with members having an existing presence in the Arctic. Key opportunity areas were identified related to Fisheries, Energy, Defense, Talent, and Marine Transportation, while key challenge areas related to connectivity, travel, land claims, access to funding, and climate change were also noted.

Late in 2022 Canada's Ocean Supercluster launched the **Two-eyed Seeing initiative**. This initiative is working towards a holistic approach that utilizes Indigenous and non-Indigenous knowledge to grow the Ocean Economy in a Digital, Sustainable and Inclusive way.

04 New Indigenous Partners Organizations

04 New Indigenous Project Partners

05 New Indigenous Project Collaborators



PROMOTING CANADA'S OCEAN BRAND

Canada's Ocean Supercluster reached new audiences across Canada and internationally putting a spotlight on the collaborative projects that are solving some of the world's biggest challenges in ocean and the members making it happen. Building on the momentum and recognition, the OSC leveraged both traditional and social media to gain new interest and positive coverage in 2022-2023.

With published content in publications including ECO Magazine, The Toronto Star, The Hill Times, National Post, Reuters, and more, Canada's Ocean Supercluster elevated Canada's ocean brand and added volume, influence and reach to Canada's ocean story both in Canada and internationally. This year the OSC also continued to highlight the work of its members and project teams who are advancing ocean economy through its own digital media promoted across social channels and reaching the feeds of approximately 2 million people.

The Undercurrent Leadership Blog published monthly included insights and information from leader both inside the OSC and from its membership, focused on topics that are timely and of importance to the sustainable growth of Canada's ocean economy.

In 2022, Canada's Ocean Supercluster was chosen as one of fifty global Ocean Titans as part of Reuter's docuseries featuring the projects of some of our member companies. The episode launched on June 29 during the UN Decade of Ocean conference.

The 2022-23 saw the third iteration of the #StoryToTell video campaign. The series ran 10 consecutive weeks in the Fall of 2022 and provided an impactful marketing platform to featured SMEs as we brought their stories to tens of thousands across the ocean community both in Canada and internationally. This year's campaign focused on four key areas including the future of energy, the future of food, the future of transport, and the future of work.



A LOOK AHEAD: RAMPING UP OSC 2.0 ACTIVITY

In 2023, the OSC will build on the momentum of the first five years working towards achieving strategic objectives within the organization's four pillars:



COMPANY 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 Initiative 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 through OSC programming.
- 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 under-represented groups.
- Continue to strengthen the network of ocean networks across the country: expanding key program participation.
- Establish recommendations for further growth of the blue bioeconomy 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 secure key global speaking opportunities and earned media to create awareness and promote the advancing leadership of the cluster, its members, and Canada in ocean.
- Build and strengthen strategic international partnerships to maximize value for members.

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

Financial Statements of:

CANADA'S OCEAN SUPERCLUSTER

And Independent Auditor's Report thereon
Year ended March 31, 2023



KPMG LLP
TD Place
140 Water Street, Suite 1001
St. John's NF A1C 6H6
Canada
Tel 709-733-5000
Fax 709-733-5050

INDEPENDENT AUDITOR'S REPORT

To the Members of Canada's Ocean Supercluster

Opinion

We have audited the financial statements of Canada's Ocean Supercluster (the Entity), which comprise:

- the statement of financial position as at March 31, 2023
- the statement of operations and changes in net assets for the year then ended
- the statement of cash flows for the year then ended
- and notes to the financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Entity as at March 31, 2023 and its results of operations, its changes in net assets and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "**Auditor's Responsibilities for the Audit of the Financial Statements**" section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.



In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with Governance are responsible for overseeing the Entity's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.



Page 3

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

KPMG LLP

Chartered Professional Accountants

St. John's, Canada

July 26, 2023

CANADA'S OCEAN SUPERCLUSTER

Statement of Financial Position

March 31, 2023, with comparative information for 2022

	2023	2022
Assets		
Current assets:		
Cash	\$ 20,297,600	\$ 18,310,458
Accounts receivable (note 2)	2,549,677	1,070,916
Prepaid expenses	146,136	342,698
Project advances	3,891,593	5,894,374
	<u>26,885,006</u>	<u>25,618,446</u>
Capital assets (note 3)	36,212	29,907
	<u>\$ 26,921,218</u>	<u>\$ 25,648,353</u>

Liabilities and Net Assets

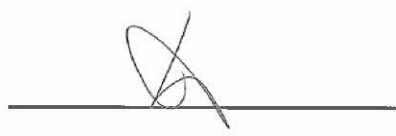
Current liabilities:		
Accounts payable (note 4)	\$ 18,716,974	\$ 10,215,464
HST payable	101,644	31,288
Deferred revenue (note 5)	7,623,750	15,234,889
	<u>26,442,368</u>	<u>25,481,641</u>
Net assets:		
Unrestricted	478,850	166,712
	<u>\$ 26,921,218</u>	<u>\$ 25,648,353</u>

See accompanying notes to financial statements.

On behalf of the Board:



Director



Director

CANADA'S OCEAN SUPERCLUSTER

Statement of Operations and Changes in Net Assets

Year ended March 31, 2023, with comparative information for 2022

	2023	2022
Revenue:		
Global Innovations Cluster	\$ 45,745,129	\$ 28,081,998
Industry member contributions	1,259,983	1,064,086
Interest income	312,138	93,932
Pan-Canadian Artificial Intelligence Strategy	34,775	-
Event revenue	-	3,826
	<u>47,352,025</u>	<u>29,243,842</u>
Expenses:		
Technology Leadership project expenses	37,936,395	21,201,102
Innovation Ecosystem project expenses	4,063,561	3,688,638
Salaries, benefits and contract labour	3,191,603	2,946,077
Professional fees	581,857	572,100
Cluster building events and workshops	363,412	34,677
Marketing and communications	302,710	339,150
Technology and office supplies	281,009	245,235
Travel	236,442	57,991
Administration and general	65,126	45,683
Amortization	17,772	15,431
	<u>47,039,887</u>	<u>29,146,084</u>
Excess of revenue over expenses	312,138	97,758
Net assets, beginning of year	166,712	68,954
Net assets, end of year	\$ 478,850	\$ 166,712

See accompanying notes to financial statements.

CANADA'S OCEAN SUPERCLUSTER

Statement of Cash Flows

Year ended March 31, 2023, with comparative information for 2022

	2023	2022
Cash provided by (used in):		
Operations:		
Excess of revenue over expenses	\$ 312,138	\$ 97,758
Item not involving cash:		
Amortization	17,772	15,431
	<u>329,910</u>	<u>113,189</u>
Changes in non-cash operating working capital:		
Accounts receivable	(1,478,761)	(589,769)
HST receivable	-	35,251
Prepaid expenses	196,562	(25,063)
Accounts payable	8,501,510	3,472,658
Project advances	2,002,781	(4,492,067)
HST payable	70,356	31,288
Deferred revenue	(7,611,139)	6,691,270
	<u>2,011,219</u>	<u>5,236,757</u>
Investing:		
Purchase of capital assets	(24,077)	(12,722)
Increase in cash	<u>1,987,142</u>	<u>5,224,035</u>
Cash, beginning of year	18,310,458	13,086,423
Cash, end of year	<u>\$ 20,297,600</u>	<u>\$ 18,310,458</u>

See accompanying notes to financial statements.

CANADA'S OCEAN SUPERCLUSTER

Notes to Financial Statements

Year ended March 31, 2023

Canada's Ocean Supercluster (the "Entity") is a private sector led corporation, incorporated on September 21, 2018 under the Canada Not-for-Profit Corporations Act, that brings companies together to boost innovation and modernization across oceans sectors. The Entity's revenues are provided by both its industry members and via a non-repayable contributions from the Global Innovation Clusters program (rebranded from the Innovation Superclusters Initiative in 2022) and the Pan-Canadian Artificial Intelligence Strategy (PCAIS) of Innovation, Science and Economic Development Canada (ISED Canada), which are programs designed to build on strengths and address gaps in the innovation ecosystem. Canada's Ocean Supercluster supports companies of all sizes who are committed to adopting and commercializing technologies to solve shared challenges and drive company growth. The Entity will also invest in ocean ecosystem initiatives to drive talent attraction and retention, develop a global ocean brand for Canada and create a connected ocean network. The Entity is exempt from income taxes.

1. Significant accounting policies:

These financial statements are prepared in accordance with Canadian accounting standards for not-for-profit organizations. The Entity's significant accounting policies are as follows:

(a) Cash:

The Entity considers cash to consist of deposits in the bank.

(b) Financial assets and liabilities:

Financial instruments are recorded at fair value on initial recognition. Subsequently, they are recorded at cost or amortized cost, unless management has elected to carry the instruments at fair value. The Entity has not elected to carry its financial instruments at fair value.

Transaction costs incurred on the acquisition of financial instruments measured subsequently at fair value are expensed as incurred. All other financial instruments are adjusted by transaction costs incurred on acquisition and financing costs, which are amortized using the straight-line method.

CANADA'S OCEAN SUPERCLUSTER

Notes to Financial Statements (continued)

Year ended March 31, 2023

1. Significant accounting policies (continued):

(b) Financial assets and liabilities (continued):

Financial assets are assessed for impairment on an annual basis at the end of the fiscal year if there are indicators of impairment. If there is an indicator of impairment, the Entity determines if there is a significant adverse change in the expected amount or timing of future cash flows from the financial asset. If there is a significant adverse change in the expected cash flows, the carrying value of the financial asset is reduced to the highest of the present value of the expected cash flows, the amount that could be realized from selling the financial asset or the amount the Entity expects to realize by exercising its right to any collateral. If events and circumstances reverse in a future period, an impairment loss will be reversed to the extent of the improvement, not exceeding the initial carrying value.

(c) Capital assets:

Capital assets are amortized on a straight-line basis using the following annual rate:

Asset	Rate
Computer equipment	4 years

The estimated useful lives of assets are reviewed by management and adjusted if necessary.

(d) Revenue recognition:

The Entity follows the deferral method of accounting for contributions. Restricted contributions are recognized in revenue in the year in which the related expenses are incurred. Unrestricted contributions and sponsorships are included in income in the period received if the amount to be received can be reasonably estimated and collection is reasonably assured.

CANADA'S OCEAN SUPERCLUSTER

Notes to Financial Statements (continued)

Year ended March 31, 2023

1. Significant accounting policies (continued):

(d) Revenue recognition (continued):

GIC committed to fund the Entity for eligible administration and operating costs and project costs over a 5-year period commencing in Fiscal Year 2018/19. Under the terms of agreement, GIC will provide a non-repayable contribution to the Entity in an amount not exceeding the lesser of \$152,843,759 and 100% of Industry Matching Funds (the "Contribution").

Effective March 31, 2023, the original contribution agreement was amended and increased the amount of the non-repayable contribution by another \$125,000,000 over the next 5 years beginning April 1, 2023 and ending March 31, 2028. The administration and operating costs will not exceed 15% of the total contribution and cannot fund more than 75% of all administration and operating costs.

To support the commercialization of artificial intelligence as part of the broader investment in the Pan-Canadian Artificial Intelligence Strategy (PCAIS), effective September 13, 2022, ISED will provide a non-repayable contribution of \$20,000,000 over the four-year period, ending March 31, 2026. ISED will fund up to 75% of eligible operating expenses which can not exceed 10% of the total contribution.

(e) Contributed services:

The value of in-kind services for salaries, benefits and contract labour is recognized in the statement of operations at the fair value of such services at their date of contribution.

(f) Use of estimates:

The preparation of the financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the year. Significant items subject to such estimates and assumptions include provisions for impairment of trade accounts receivable. Actual results could differ from those estimates.

CANADA'S OCEAN SUPERCLUSTER

Notes to Financial Statements (continued)

Year ended March 31, 2023

2. Accounts receivable:

	2023	2022
Member contributions receivable	\$ 2,511,897	\$ 1,070,916
ISED receivable	34,775	-
Trade receivable	3,005	-
	\$ 2,549,677	\$ 1,070,916

3. Capital assets:

	2023		2022	
	Cost	Accumulated amortization	Net book value	Net book value
Computer equipment	\$ 89,069	\$ 52,857	\$ 36,212	\$ 29,907

4. Accounts payable:

Claims payable related to ongoing projects total \$17,322,676 (2022 - \$9,794,422) and are included in accounts payable.

CANADA'S OCEAN SUPERCLUSTER

Notes to Financial Statements (continued)

Year ended March 31, 2023

5. Deferred revenue:

The Entity entered into a funding arrangement with ISED under the GIC program for the five year period ending March 31, 2023. Amounts received by the Entity are used towards funded eligible costs as defined in the agreement specifically for the program. The contribution agreement which governs this funding arrangement was amended and restated effective March 31, 2023, to extend the funding for another five years ending March 31, 2028.

The Entity receives contributions from members based on the Unanimous Member's Agreement effective January 29, 2019. Amounts received by the Entity are used towards funded and unfunded eligible costs as defined in the agreement.

	2023	2022
Beginning balance - GIC	\$ 10,547,290	\$ 6,663,533
Funding received/receivable during the year - GIC	35,000,000	33,925,000
Recognized as revenue during the year - GIC	(45,745,129)	(28,081,998)
Ending balance - GIC	(197,839)	12,506,535
Beginning balance - Members	4,687,599	1,880,086
Net funding received/receivable during the year - members	4,382,382	1,912,354
Recognized as revenue during the year - members	(1,248,391)	(1,064,086)
Ending balance - Members	7,821,590	2,728,354
Ending balance	\$ 7,623,751	\$ 15,234,889

A change in estimate was made April 1, 2022 to reallocate recognized revenue between GIC and Members. This change was made to reflect the GIC funding of 75% of funded eligible administrative and operating costs and 100% of Innovation Ecosystem project expenses to date. Previously, OSC had estimated that the GIC program would fund 50% of funded eligible administrative and operating costs and 50% of Innovation Ecosystem project expenses, with Industry funding the remaining operating expenses. The change in estimate is reflected in the 2023 Beginning balance in the above table.

CANADA'S OCEAN SUPERCLUSTER

Notes to Financial Statements (continued)

Year ended March 31, 2023

6. Financial risks and concentration of risk:

The Entity, through its financial assets and liabilities, has exposures to the following risks from its use of financial instruments:

Concentration of risk:

(a) Credit risk:

Credit risk refers to the risk that a counterparties may default on its contractual obligations resulting in a financial loss. The Entity is exposed to credit risk with respect to cash and accounts receivable, including member contributions receivable. The carrying amounts of financial assets on the balance sheet represent the Entity's maximum credit exposure as at March 31, 2023.

The Entity manages its exposure to credit risk by entering into formal agreements with members and monitoring payments to ensure they are in accordance with the Member's Agreement. The Entity also manages its exposure by only entering into agreements with reputable companies who are active in the ocean economy.

The credit risk on cash is limited because the counterparties are chartered banks with high credit ratings assigned by national credit-rating agencies.

7. Economic dependence:

Pursuant to a funding agreement, the Entity receives significant funding revenue from GIC. As a result, the Entity is dependent upon the continuance of this funding to maintain operations at their current level.

8. Comparative information:

The financial statements have been reclassified, where applicable, to conform to the presentation used in the current year. The changes do not affect prior year earnings.



**CANADA'S OCEAN
SUPERCLUSTER**

Building a Digital, Sustainable, and Inclusive
Ocean Economy for Canada

