CANADIAN OCEAN LITERACY COALITION

NATIONAL STRATEGY IMPACT REPORT 2024

Published

May 2025

Visit us: colcoalition.ca





CONTENTS O **TABLE**

The Canadian Ocean Literacy Strategy	04
Our Impact	05
Guiding People from Knowledge to Action	06
Priority Areas	08
Education & Engagement	08
Research	09
Leadership & Advocacy	09
2024 Impact Summary	10
How We Measure Impact	11
Impact Through	12
Key Initiative 1: Ocean Week Canada	12
Key Initiative 2: Ocean Literacy Community Grants	12
Key Initiative 3: Blue Schools Canada	13
Key Initiative 4: Giant Ocean Floor Map Program	13
Key Initiative 5: Public Ocean Perceptions Research	14
Key Initiative 6: National Strategy & Impact Measurement	14
Key Initiative 7: Global Leadership & Community Building	15
The Importance of Partnerships	16
2024 Publications	18
2024 Budget Breakdown	19
Acknowledgements	20
Appendix	21





We protect what we love but to truly love, we must first understand. When it comes to the ocean, a deeper understanding begins with ocean literacy.

Peter Thomson, United Nations Secretary-General's Special Envoy for the Ocean





THE CANADIAN OCEAN LITERACY STRATEGY



A community that is ocean literate has a strong societal-ocean connection, a bond that helps people live and act in ways that ensure a healthy ocean. Our work is an effort to build and strengthen these connections and actions across geographies and generations.

Diz Glithero, Executive Director, Canadian Ocean Literacy Coalition

In late 2018, leaders in ocean education, conservation, and policy came together for a nation-wide research initiative. They wanted to better understand people's varying relationships with the ocean in Canada and to learn how ocean literacy is understood and practiced across the country. Over 400 organizations and more than 3,000 people took part in the study, the first of its kind in the world.

The group of researchers found that people in Canada value a healthy ocean and that most people would like Canada to be an international leader in ocean protection. Their work also revealed that many people don't understand how their actions affect the ocean or how the ocean influences daily life. From this process, the Canadian Ocean Literacy Coalition (COLC) was born.

Motivated by these findings, COLC facilitated the creation of a national strategy to strengthen ocean literacy in Canada. When implemented, the strategy would help close the gap between what people in Canada value and what their actions achieve.

Four years later, the strategy to advance ocean literacy is coming to life through the efforts of hundreds of partners working in all parts of Canada. The Canadian Ocean Literacy Strategy is an endorsed project of the United Nations Decade of Ocean Science for Sustainable Development, supporting collaborative action through to 2030 and beyond. The work is informed by research and data-driven insights and watched closely by other nations wanting to develop and implement their own ocean literacy strategies.

STRATEGY IMPLEMENTATION PHASE I (2021-2025)

From 2021 to 2025, more than 1000 partners worked collaboratively on 14 key initiatives guided by the original strategy's 10 Action Streams. This work engaged 6.2-million people in Canada in activities and experiences that help to build their knowledge, appreciation, and ability to act for the ocean. Phase II of the strategy begins in 2026.





OUR IMPACT



People understand how the ocean influences them and how their behaviours, decisions, and actions impact the ocean. People appreciate their connection with the ocean and feel a responsibility toward it.

People take action in their lives and influence others to engage and to protect the ocean.

A HEALTHY OCEAN

The ocean sustains life below water and on land. It shapes society, culture, and the economy in beneficial ways.



GUIDING PEOPLE FROM KNOWLEDGE TO ACTION

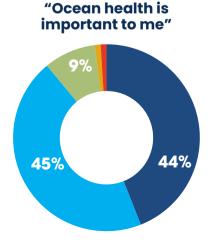
Public perceptions of the ocean influence the ways people connect with it and the choices they make in their daily lives. COLC conducts periodic public opinion surveys to understand public perceptions of the ocean and to ensure our work continues to resonate with people in Canada. Insights from these surveys help us to understand what motivates people's behaviour, what helps them take action, and what barriers might be in their way.

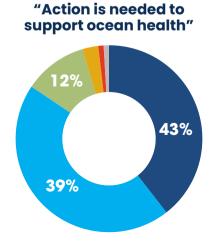
Building on Canada's first ocean literacy survey conducted by COLC and Nanos in 2019–2020, the same questions were polled by Nanos in January 2024 (for full report link, see p. 18). The results re-affirm the findings that sparked COLC's creation: to protect the ocean, celebrate culture, and grow a sustainable ocean economy, organizations need to invest in projects that bridge the gap between what people care about and what they are able to do.

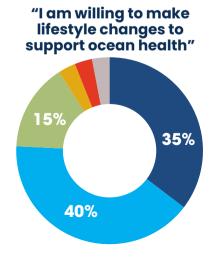
A. PEOPLE CARE ABOUT THE OCEAN

People in Canada care about the ocean: 89% say that ocean health is important to them; 82% say action is needed to support ocean health; and, 75% are willing to make lifestyle changes to support ocean health (an increase since 2019).











B. PEOPLE WANT GUIDANCE

While people care about the ocean, they say they often lack the information they need to act on their values. People in Canada say the best way to help them change their behaviour is to show them how their lifestyle affects the ocean.

They also want to feel more connected to the ocean, to believe that their personal actions can make a difference, and to see leaders taking action.

C. PEOPLE NEED EXPERIENCES TO HELP THEM BUILD OCEAN CONNECTIONS

Top ways that people in Canada learn about the ocean

People are more likely to foster ocean connections and understanding when they have guidance, opportunity, and/or support. When asked how they learn about the ocean, people in Canada say they rely on media (including entertainment), time spent by the ocean, institutions like museums, and other social and cultural experiences. For the first time in 2024, public events (such as Ocean Week Canada) appeared on the list.

These responses show that intentional engagement activities are powerful, especially when they involve a range of actors, such as museums, cultural centres, businesses, and community associations. Further research also shows that engaging the public through educational initiatives, citizen science, public forums, and co-designed research focused on community solutions also helps to build ocean literacy.

S SOCIAL WIEWS, SOCIAL WIEWS,

People care and want to act, but they don't know what to do, don't know if they will have the support they need, or aren't sure their actions can make a difference. That's where we come in.

Public opinion shows us that ocean literacy efforts in Canada should prioritize:

- Activities that influence people's understanding, feelings of connection, beliefs, and sense of hope; and
- Activities that help people to make decisions and behave in ways that ensure their actions contribute positively to ocean health.



PRIORITY AREAS

How we create experiences, build ocean connections, and strengthen community action

EDUCATION & ENGAGEMENT



These initiatives engage members of the public to enhance their knowledge of the ocean, build societal connections, and provide the motivation for action and behaviour change necessary for ocean conservation.

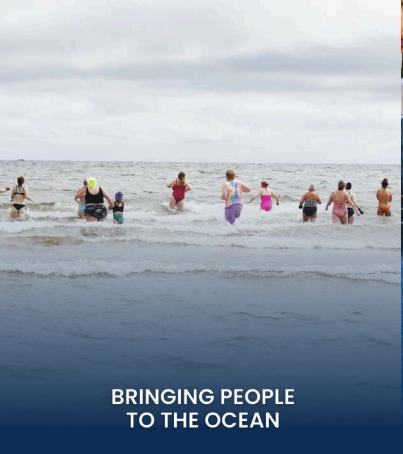
Key Initiative #1: Ocean Week Canada

Key Initiative #2: Ocean Literacy Community Grants

Key Initiative #3: Blue Schools Canada

Key Initiative #4: Giant Ocean Floor Map Program

Target Audiences: Families, youth, educators, and community groups







RESEARCH



Ocean Literacy Research is a transdisciplinary, cross-sector field of research which explores the diverse dimensions, drivers, influences, and impacts of ocean literacy initiatives.

Key Initiative #5: Public Ocean Perceptions Research

Key Initiative #6: National Strategy and Impact Measurement

Target Audiences: Ocean sector professionals, researchers, policy-makers, and nonprofit organizations



LEADERSHIP & ADVOCACY



COLC participates in numerous national and international ambition-setting, future-thinking, and change-making initiatives. These efforts contribute to Canada's effectiveness, credibility, and leadership in the global ocean literacy movement, and broader ocean conservation, research, and Ocean Decade work.

Key Initiative #7: Global Leadership and Community Building

Target Audiences: Ocean sector leaders, governments and policy-makers, international ocean and research associations

2024 IMPACT SUMMARY



national project office



action streams (as outlined in the National Strategy)



Key Initiatives



\$1,429,908 invested in Ocean Literacy initiatives



175 community grants awarded totalling \$136,541



events



670 partners



2,248,753 people actively engaged



6,874,837 people reached (in-person, online, social media, ads)



2 research projects underway



>97% partner satisfaction



>73% public user satisfaction



>75% reporting positive impacts on ocean knowledge, values, actions





HOW WE MEASURE IMPACT

COLC's key initiatives are designed to create positive shifts in ocean knowledge, ocean values, and ocean actions. The National Strategy identified these goals as critical dimensions to building an ocean-literate society.

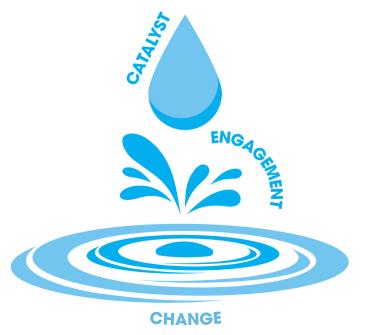
Shifts may occur across all scales, from one individual to an organization, community, or sector. A shift begins with a change within one individual or organization, and long-term impact occurs once a critical mass of people in a community or organizations in a sector are acting upon their shared knowledge and values.

THE IMPACT MODEL

To initiate impact, people fostering ocean connections first create or circulate a **catalyst**. Catalysts include events, tools, training experiences, or funding opportunities.

People interact with a catalyst, which helps to increase their understanding, appreciation, capacity, or willingness to act in support of a healthy ocean. The frequency and depth of these interactions is measured by engagement metrics, such as participation and usage.

Engagement with a catalyst facilitates a **change** in knowledge, values, and actions. Change is usually measured through user surveys, feedback from participants and partners, and broad public perceptions surveys.



COLC also looks at representation amongst both catalysts and the participants/users in order to better understand the depth and potential longevity of the impact.

For COLC, representation includes:

- age
- geography
- languages
- Indigenous leadership
- freshwater connectivity
- sector participation

These were identified as essential to ocean literacy efforts in Canada.



IMPACT THROUGH & EDUCATION & ENGAGEMENT

KEY INITIATIVE #1 - OCEAN WEEK CANADA

Ocean Week Canada is an annual celebration of ocean culture in Canada. The nationwide festival of events promoting ocean connection and conservation coincides with World Ocean Day (June 8th).

In 2024, **ten regional hubs** and **411 partners** engaged **2,198,624 people** in Canada through **393 events** and online campaigns.

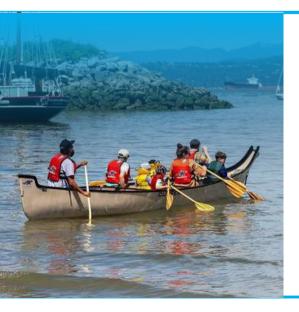
When surveyed, **98% of hosts** said they would continue to celebrate Ocean Week Canada in the future.

Visit the Ocean Week Canada website to see the community event portal and Blue Learning Lab: oceanweek.ca

Read the Ocean Week Canada 2024 Impact Report at colcoalition.ca/our-work/colc-publications



KEY INITIATIVE #2 - OCEAN LITERACY COMMUNITY GRANTS



The Grants program distributed **175 grants** totalling **\$136,541 in funding** for organizations, schools, and artists.

Through the Ocean Week Canada Community Event Grants, Blue Creators Grants, and Blue Schools Experiential Grants, the grants created **79 experiences** that connected communities across Canada with the ocean.

Learn more about upcoming Ocean Literacy Community Grant opportunities at **colcoalition.ca/grants**



KEY INITIATIVE #3 - BLUE SCHOOLS CANADA

Blue Schools Canada is the national hub of the Blue Schools Global Network, an initiative aligned with the United Nations Decade of Ocean Science for Sustainable Development (2021–2030). The program's goal is to promote ocean literacy and climate action through education. The Blue Schools Global Network grew out of the successful All-Atlantic Blue Schools Network, of which COLC was a founding member, that launched in 2021.

In 2024, Blue Schools Canada reached **101 members** and engaged **898 young learners and educators** in ocean literacy experiences, training, and live-learning events. In a survey, **100% of members** said they were very satisfied with the program and its impact on ocean literacy.

Join Blue Schools Canada at colcoalition.ca/projects/blue-schools-canada



KEY INITIATIVE #4 - GIANT OCEAN FLOOR MAP PROGRAM



The Ocean, Freshwater, and Us floor map showcases freshwater systems, watersheds, oceanic waters, sea ice, and marine conservation areas in Canada. The giant map comes in three sizes. It is used alone and with an Augmented Reality app as a learning and engagement tool for schools, organizations, conferences, and public events.

In 2024, 17,481 people used 24 maps circulated by 5 partners at 162 events. An additional 2,391 people used the digital interactive map during its pilot year.

Book the map and download the Augmented Reality app at oceanweekcan.ca/blue-learning-lab/inquiry-zone/giant-floor-map

Use the digital interactive map at canadaoceanmap.ca



IMPACT THROUGH

RESEARCH

KEY INITIATIVE #5 - PUBLIC OCEAN PERCEPTIONS RESEARCH

Perceptions research helps us understand the ways people feel about the ocean, how they connect with it (if at all), and what drives peoples' attitudes, values, and behaviours related to the ocean.

Polling conducted by Nanos and COLC in 2024 shows that people in Canada overwhelmingly agree that ocean health is important.

Also in 2024, COLC and international partners co-developed a standardized survey — The Ocean & Society Survey — to record and compare public ocean perceptions in different countries and across years. These insights can help guide ocean communication strategies, effective knowledge mobilization and engagement practices, as well as broader ocean decision-making and investments in ways that consider peoples' lived experiences and realities.

Read the Nanos polling results at colcoalition.ca/our-work/colc-publications

Learn more about the Ocean & Society Survey at oceanliteracyresearch.com/ocean-and-society-survey

KEY INITIATIVE #6 - NATIONAL STRATEGY & IMPACT MEASUREMENT

In 2024, the impact measurement program tracked **103 impact metrics** across **7 Key** Initiatives, totalling 721 quantitative and qualitative measurements. This information was used to monitor progress on the implementation of the National Strategy and the impact of the work on ocean literacy in Canada. In 2024, COLC published two impact reports: the National Strategy 2023 Impact Report and the Ocean Week Canada 2024 Impact Report.

This year — 2025 — marks the half-way point of the UN Ocean Decade and the end of Phase 1 of COLC's work under the initial National Strategy. In preparation for the next five years, COLC has embarked on a consultation process to review and update the National Strategy, producing a blueprint for collaborative action in 2026-2030. The updated Strategy and related impact framework will be released in 2025.

Learn more about the consultation process and progress at colcoalition.ca/projects/the-canadian-ocean-literacy-strategy-2-0



IMPACT THROUGH LEADERSHIP & ADVOCACY

KEY INITIATIVE #7 - GLOBAL LEADERSHIP & COMMUNITY BUILDING

COLC is recognized nationally and internationally as a centre for ocean literacy collaboration, leadership, research, and innovation. Through the effective integration of ocean literacy into ocean plans, programs, and research, COLC's work directly influences global ocean conversations and conservation efforts.

Highlights of COLC's leadership & presentations in 2024:

- Ocean Decade Vision 2030 COLC's Executive Director, Diz Glithero, served as the
 co-chair and co-author of the Challenge 10 White Paper: Restoring Humanity's
 Relationship with the Ocean. The paper serves as a guide to help countries
 identify priorities and mobilize resources that strengthen meaningful societyocean connections.
- Ocean Literacy Research Community (OLRC) —COLC is the lead coordinator of the global OLRC, a transdisciplinary network of over 150 researchers from more than 20 countries. The community is focused on exploring the diverse dimensions, drivers, influences, and impacts of ocean literacy initiatives. The Ocean & Society Survey was the primary focus in 2024.

• International presentations:

- Ocean Sciences Meeting, New Orleans (February). Invited panelist. Vision 2030:
 Ocean Science and Knowledge Priorities for the Ocean Decade
- o UN Ocean Decade Conference, Barcelona (April). Invited Speaker. Challenge 10
- ESRI Ocean & Water Forum, Virtual (May). Invited keynote. Presentation on Mapping & Advancing Ocean Literacy in Canada
- Ocean Dialogue Oceans 20 Brazil, Virtual (August). Invited panelist. Ocean Literacy Beyond Borders: Engaging the Public & Private Sectors
- International Marine Conservation Congress 7, South Africa (October). Presentation on the Ocean & Society Survey
- All-Atlantic Ocean Research & Innovation Alliance Forum, Ottawa (October).
 Invited panelist. DEI, ocean literacy, and co-design best practices
- o COP29 Ocean Pavilion, Virtual (November). Presenter. Ocean & Society Survey

• Steering Committees:

- o Ocean Decade Coordination Office, Connecting People and Ocean
- IOC-UNESCO-led Ocean Literacy With All global program
- Canadian Commission for UNESCO's Ocean Decade Expert Working Group





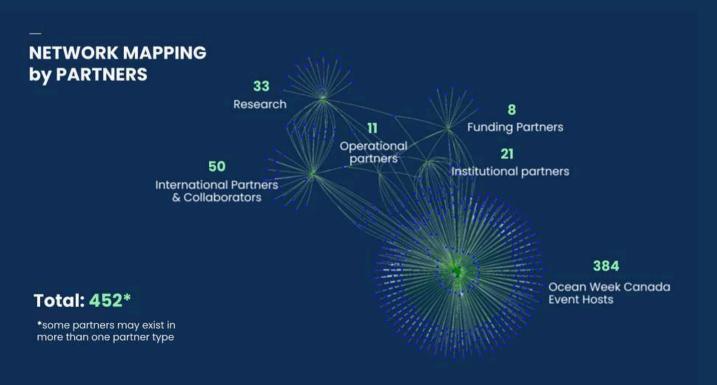
THE IMPORTANCE OF PARTNERSHIPS

Collaboration drives impact. Through cross-sector partnerships, we create the catalysts that build ocean connections and facilitate action.

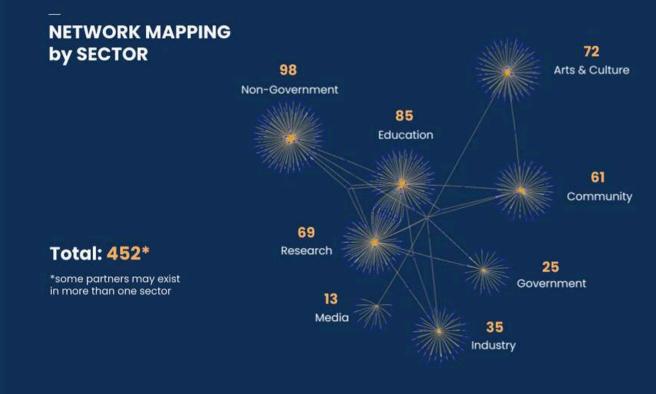
Together, partners are responding to public expectations and desires for leadership. Environmental and conservation groups are trusted to protect the ocean. They are counted upon to work with governments, Indigenous communities, educational institutions, business, community groups, and media. Local and regional partners ensure that work reaches — and benefits — people from all walks of life across Canada. The impact of each partner's efforts and unique expertise is reflected in their contributions to the key initiatives described in this report.

To better understand COLC's partner ecosystem, we undertook a social network analysis in 2024. Using partner data from 2021-2023, COLC and Limnology Research found:

- 21 institutional partners helped to launch the initial National Strategy implementation phase (2021-2024), with 11 operational partners becoming central in the delivery and management of key initiatives and operations.
- Ocean Week Canada attracts the largest share of partners (85%).
- Partners represent a range of sectors, including: Non-Government, Education, Arts & Culture, Research, Community, Industry, Government, and Media.







By the end of 2024, the contribution of partners to the National Strategy's success was even more significant. Participation increased in all key areas. The total number of partners in 2024 was **670 unique organizations** (building on the 452 partners from 2021–2023 data as shown in above graphics), representing **715 total partnerships** (with some partners participating in more than one key initiative) over the course of the year. This brings the total number of partner organizations to **over 1,000**, and the number of individuals to **over 18,000**, since the launch of the National Strategy in March 2021.





2024 PUBLICATIONS



The majority of Canadians strongly agree or agree that ocean health is important to them, that action is needed to support it, and are willing to make lifestyle changes to help protect it.

National Survey conducted by Nanos for the Canadian Ocean Literacy Coalition in January 2024

Read More



Ocean Decade Vision 2030 White Papers: Challenge 10: Restoring Society's Relationship with the Ocean.

Prepared as part of the Vision 2030 process being undertaken in the framework of the UN Decade of Ocean Science for Sustainable Development, this paper offers three recommendations for responding successfully to Challenge 10.







This paper moves global ocean literacy research forward by defining four priorities for ocean literacy research.

Read More





This paper examines how researchers and policy-makers might understand marine identity in response to Challenge 10 of the UN Ocean Decade of Ocean Science for Sustainable Development: Restore society's relationship with the ocean.

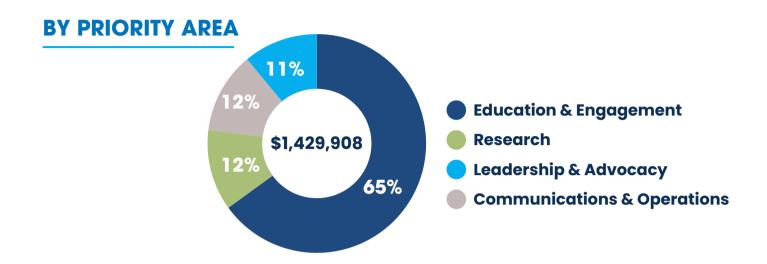
Read More

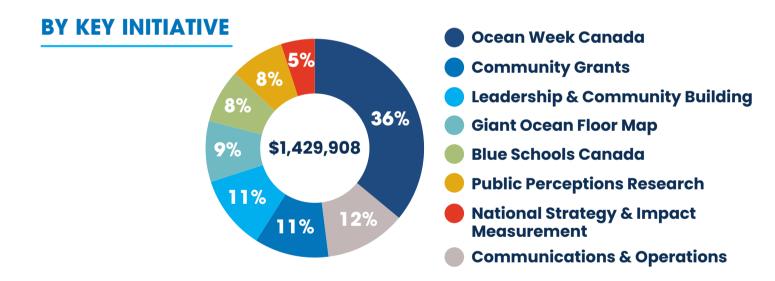


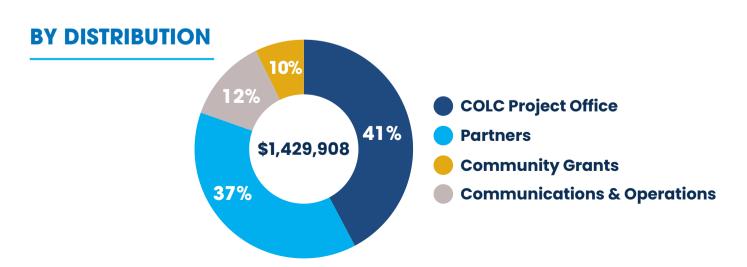
All publications are available online at colcoalition.ca/our-work/colc-publications



2024 BUDGET BREAKDOWN









ACKNOWLEDGEMENTS

This report is published by the Canadian Ocean Literacy Coalition (COLC). COLC is a nationally and internationally recognized centre for ocean literacy collaboration, research, and innovation. We convene and lead collaborative action across regions, sectors, and scales to advance the priorities outlined in the National Strategy.

Administrative support for COLC's operations prior to April 2024 came from Ocean Networks Canada at the University of Victoria. Today, COLC is administratively housed at Ocean Frontier Institute at Dalhousie University.

Entremission, a Montréal-based social enterprise working in close partnership with COLC, developed the impact measurement framework in 2021 and has been collecting and analyzing impact data ever since.

Funding for the advancement of the National Strategy and the impact measurement program is made possible by a contribution from Fisheries and Oceans Canada through the Oceans Management Contribution Program. With these ongoing evaluation, impact measurement, and reflection efforts, we hope to fuel an ongoing dialogue about how to best connect people with the ocean and build an ocean-literate society.



THANK YOU!

More information about COLC's work, initiatives under the National Strategy, the impact measurement program, and ways to get involved is available at **colcoalition.ca**



APPENDIX A

Metric ID	Icon	Parent Metric	Child Metric			
	Catalysts (Resources)					
1.00		Number of resource reports / publication	ces /toolkits / learning objects / GFM with AR in circulation / ons			
1.10			Languages used in the delivery of the project (incl French, Indigenous, English specifically			
1.20			Use of storytelling			
2.00	①-0-0 ・・☆・ ・・・・・・	# of live events ho	sted, co-hosted, co-created (including GFM events)			
2.10			Languages used in the events (incl French, Indigenous, English specifically			
2.20			Types of events: In-Person, Online, Hybrid			
2.30			Approaches to ocean literacy			
2.40			Sectors represented			
2.50			Ages targeted			
2.60			Cost to participate			
2.70			Accessibility (wheelchair, closed-captioning, other)			
2.80			Number of provinces, territories where events took place			
2.90			# of events by regional hub (OWC)			
2.10			# of events that were Indigenous-led (or all Indigenous relationships)			



Metric ID	lcon	Parent Metric	Child Metric
3.00	0 0 0 0 0 0	Amount (\$) of fund	ling invested (sum of awarded + announced + allocated)
3.10			Amount (\$) of funding awarded
3.20			Amount (\$) of funding announced (but not yet awarded; additional amount)
3.30			Amount (\$) of program funding allocated
3.40			Number of grants awarded
3.50			Number of provinces receiving funding
3.60			% of funded projects that were Indigenous-led (or all Indigenous relationships)
3.70			Approaches to ocean literacy
3.80			Freshwater inclusion / representation within grantees and project
3.90			% of funded projects that were ECOP-led
4.00		# of research proje	ects
4.10			Types of projects: survey, method, peer-reviewed paper, article, guide, etc.
4.30			Indigenous participation
4.40			# of impact metrics recorded



Metric ID	Icon	Parent Metric	Child Metric
5.00		# of additional out	reach opportunities created (animations, conversations)
5.10			# of presentations delivered by COLC or Key Initiative leads
5.11			# of ECOP presenters
5.20			# of unique media stories
5.21			total # of media stories (including syndicated, duplicate, reprints)
5.30			# of third party stories (e.g,. blogs, newsletters)
6.00		New policies, calls	-to-action to promote ocean literacy

Engagement

10.00	# of partners parti	cipating in the initiative (Tier 1+Tier2+Tier3)
10.10		Number of core partners involved in creating/ managing the initiative (Tier 1)
10.20		The number of event hosts, schools, or similar activation partners (Tier 2)
10.30		The number of other participating partner organizations (Tier 3)
10.40		Number of countries represented amongst the partners
10.50		Other partner representation data (e.g., sectors)
10.60		Representation of ECOPs in project or amongst key partners



Metric ID	Icon	Parent Metric	Child Metric
12.00		Digital resource us	sage:
12.10			Number of uses (views) of resources /toolkits / learning objects / reports / publications, etc
12.20			Number of app downloads
12.30			User engagement (specifics will flow from analytics)
12.40			Number of video views
12.50			# of event portal views
12.60			Languages used in the delivery of the resource (incl French, Indigenous, English specifically
12.70			Geographic representation: provinces and territories
13.00		# of event attende	ees
13.10			Breakdown of people participating in school events, webinars, live-learning sessions (students, educators, public)
14.00		Number of grants	requested
14.10			Amount of funding requested
14.20			Languages used (incl French, Indigenous, English specifically)
14.30			# of applications by province and territory
14.40			# of applications from ECOP leaders



Metric ID	Icon	Parent Metric	Child Metric
15.00		# of outreach and	network-building opportunities
15.10			# of conferences, key meetings attended
15.30			# of third party stories (e.g,. blogs, newsletters)
15.40			# of media stories (including syndicated, duplicate, reprints)
15.41			types of media stories
15.42			# of media outlets with stories
15.50			# of press releases created
15.51			# of partners sending press releases
15.60			# of times ads were displayed (impressions)
16.00	808	# of people in the o	digital community
16.00			# of people who view the Initiative information page(s) on COLC / OWC website
16.10			# of people who viewed the Project website
16.20			Geographic breakdown of people viewing the main project website
16.21			# of people who view the videos
16.30			Number of social media followers



Metric ID	Icon	Parent Metric	Child Metric	
16.50			Organic social media reach	
16.60			# of people on ocean literacy mailing lists	
17.00		# of people reache	ed through additional promotion and outreach	
17.10			# of people who saw online ads	
17.20			# of people reached through paid media placement	
17.30			# of people attending presentations and meetings	
17.50			# of people responding to user / PPR surveys	
	Compound - Engagement			
20.00	(S)(D)	# of people active	ly engaged nationwide	
21.00	(75Kg)	# of people reache	ed by ocean literacy programming nationwide	
		Ch	ange (Perceptions)	
30.00		Partner feedback		
30.10			# survey responses from partners (e.g. event hosts)	
30.20			partner survey response rate (%)	
30.30			% of partners who would/ will participate again	



Metric ID	Icon	Parent Metric	Child Metric
30.40			% of respondents who were satisifed with the project or experience
30.50			% of partners (e.g., grantees) who said the resources (e.g., funds) made a difference for their events
30.60			% of partners who said the experience / resource contributed positively to ocean literacy
30.70			benefits of participating in the project
30.80			how did you spread the word (promote your event)?
30.90			# of partners who say participation generated new support for their work (funding or partnerships)
31.00		Attendee / user fee	edback
31.10			# survey responses from attendees and users
31.20			% of attendees /users who would/ will participate again
31.30			% of attendees /users who were satisifed with the project or experience
31.40			% of attendees /users who said the experience / resource contributed positively to ocean literacy
31.50			Composition of survey respondents
32.00		Public perceptions	
32.10			# survey responses



Metric ID	Icon	Parent Metric	Child Metric
32.20			public ocean perceptions (quantitative)
32.30			change in public ocean perceptions compared to previous survey(s)
32.40			Composition of survey respondents