



2023

Performance Report

Green Marine by the numbers

7 EMPLOYEES

14 PERFORMANCE
INDICATORS

187 PARTICIPANTS

491 MEMBERS AND
COUNTING!

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All the performance statistics and analyses within this report are based on the 2023 results calculated as of May 15, 2024.

Chair's address

AN HISTORIC JUNCTURE

Leaving at a pivotal moment in our organization's history, I am privileged to reflect on my tenure spanning six years on the board of directors, including the past three as its chair.

During this time, the organization has undergone substantial growth, propelled by a dedicated and dynamic staff committed to promoting the environmental merits of Green Marine's mission.

Furthermore, our program participants have consistently demonstrated a wealth of expertise, practical insight, and pioneering advancements, contributing to our collective success.

As a result, Green Marine is now approaching 500 members in North America at the same time as it is officially establishing an international presence. Participants are continually advancing environmental excellence as they also prepare for the next big steps toward the industry's global decarbonization.

It's incredible how far Green Marine has come over the past 17 years, when my organization, Montreal Gateway Terminals, was among those that initially founded the environmental certification program. Canadian and U.S.

CEOs gathered back then to establish better metrics and transparency to accelerate sustainability efforts in the Great Lakes and St. Lawrence region. We are now taking the program's model globally after successfully launching Green Marine Europe and enrolling participants from as far away as Australia.

I enthusiastically anticipate the future trajectory of Green Marine International and the opportunities it holds for the industry.

I'm fortunate to have had the opportunity to navigate this journey alongside the remarkable individuals comprising the board of directors, the dedicated Green Marine staff, and the invaluable members of the advisory committees. Their collective commitment, generously volunteering their expertise, resources, and time, has been instrumental in our shared endeavours and successes.

Our membership embodies a genuine dedication to catalyzing unparalleled transformation within what was already the most environmentally friendly mode of transportation. Through their contributions, Green Marine participants are reshaping the boundaries for a greener global transportation, while setting higher standards for sustainability and innovation.

As I approach the conclusion of my tenure on the board, I reflect with profound pride on the industry's collective response, facilitated in no small part by Green Marine, to the monumental challenges of climate change and biodiversity. Acknowledging the formidable nature of these endeavours, it is heartening to witness the resolute commitment of our industry stakeholders to effect meaningful change. While recognizing the complexity of the journey ahead, I depart with unwavering confidence in the capable stewardship that will continue to guide our course toward a more sustainable future.



Michael Fratianni





Our mission

Advancing environmental excellence

A voluntary certification program encouraging maritime organizations to adopt concrete, measurable actions that go beyond regulatory obligations.



Membership growth

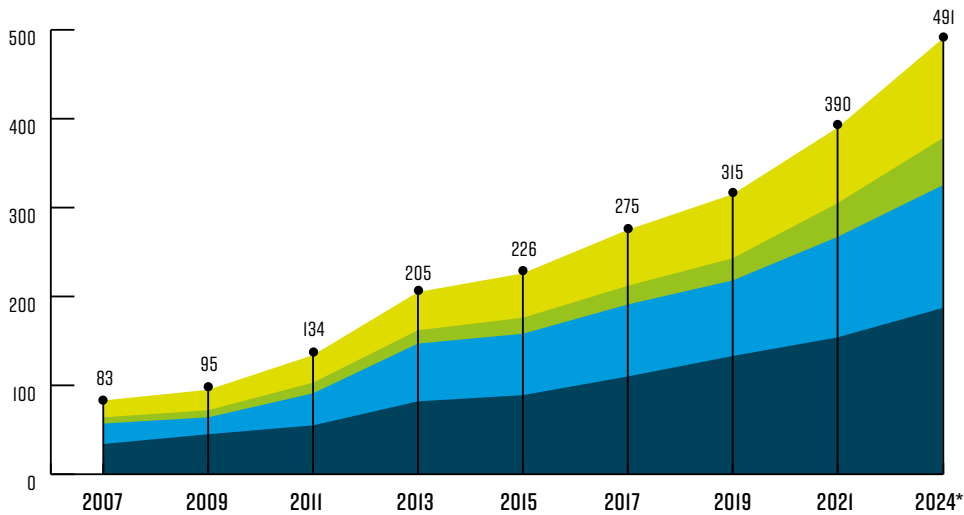
A LARGER, MORE DIVERSIFIED NORTH AMERICAN MEMBERSHIP

Green Marine's overall membership has increased five-fold since the program's inception in 2007 to where it is now approaching the 500 milestone! A significant number of the new participants have been shipyards that were given standalone criteria to report on their 2023 environmental performance. Their participation increased by 44%. The number of terminal operators has also risen significantly with more of them joining Green Marine or arranging for additional locations to individually submit evaluations. As a result, Green Marine has continued to expand throughout coastal North America, especially along the U.S. Eastern Seaboard into Atlantic Canada.

The program benefits from the knowledge and experience of more than 110 supporter members. Their expertise

within the scientific field, environmental and community organizations, as well as various levels of government, are often called upon to inform the program's evolution.

Partner members have become an increasingly pivotal aspect of Green Marine as participants seek new technologies and other innovative solutions to improve their sustainability by maximizing efficiencies, minimizing environmental impacts, and transitioning to cleaner energy sources. They outline their services to improve environmental performance in the directory that Green Marine has made searchable by keywords. Green Marine highlights many of the collaborations between partners and participants in testing new technologies and innovations.



* As of May 17, 2024.

187 PARTICIPANTS
Ship owners, ports, terminals, shipyards, and the Seaway corporations.

53 ASSOCIATIONS
Maritime industry advocacy organizations.

138 PARTNERS
Suppliers of maritime-related products, services, equipment, and new technologies.

113 SUPPORTERS
Scientific research institutes, environmental organizations, and governmental agencies.



Membership growth

COLLABORATIVE EXPANSION

Green Marine is proud to now have more than 50 association members. They each reflect the program's highly collaborative approach and play an important ambassadorial role in relating the certification's merits to their respective memberships. They additionally serve as a valued source of insights when it comes to assessing the feasibility of integrating new sustainability initiatives to a maritime enterprise's day-to-day operations.

In the same spirit of collaboration, Green Marine has signed a Memorandum of Understanding with **Smart Freight Centre**, formalizing a framework to guide maritime industries and global logistics in tracking and reducing greenhouse gas emissions to achieve net zero by 2050 or earlier. As part of

the agreement, Green Marine and Smart Freight Centre will promote each other's efforts and achievements to build awareness regarding their respective programs.

Green Marine has also joined **RightShip's new Zero Harm Innovation Partners Program**. The global initiative by the world's leading ESG-focused digital maritime platform aims to promote the development and widespread adoption of innovative solutions that promise a better, safer and more sustainable future for the maritime industry. As part of this new program, RightShip will display the Green Marine or Green Marine Europe certified logo of participants on the RightShip platform as a clear indication of their commitment to environmental stewardship.



Green Marine International

GLOBAL EXPANSE

Say hello to **Green Marine International!** The new entity has been incorporated to reflect the environmental certification program's increasing global reach while consolidating its governance. It unites Green Marine and Green Marine Europe under a single organization under a consistent, strong, and widely recognized brand.

Green Marine International's establishment was viewed as the next logical step as Green Marine's license agreement with Surfrider Foundation Europe for coordinating Green Marine Europe comes to an end in 2024. The obvious value of the synergies arising from this successful collaboration prompted the creation of a new governance structure that would combine the forces of both programs.

The board of directors for Green Marine International will include the nine directors that were appointed at the first Annual General Meeting of Green Marine International on May 23, 2024, as well as three European directors set to be chosen later this year after Green Marine Europe is incorporated in France to establish its legal existence within the European Union.

Green Marine members and Green Marine Europe members will now all be Green Marine International members! Nothing changes in terms of existing membership requirements. The Green Marine management team currently in place also remains the same.

The new Green Marine International entity continues Green Marine's successful model of integrating regional, national, and international obligations as part of the program's

regulatory baseline, along with its consultative process for determining whether specific environmental concerns for a particular region or industry sector should be integrated into the program. The integration of resources will facilitate program development and synergies between the North American and European participants through a shared brand that is increasingly being recognized worldwide for its consistent rigour and transparency.

In recent years, Green Marine's solid reputation for achieving substantial environmental progress has expanded globally, thanks in good part to Green Marine Europe's successful launch. This has led to an increasing number of requests from ports and other maritime enterprises from around the world to be Green Marine certified. Now that Green Marine International is incorporated, the efforts to expand its global presence are gearing up with pilot projects in the works in Australia, Latin America, as well as the program's trial expansion to include European ports.

Using the improved Smart Guide's more interactive capabilities, the candidates involved in these pilot projects will complete an evaluation and identify any program elements inapplicable to their geographic location(s) or where regulatory compliance already exceeds the program's requirements.

Green Marine International will continue to foster the collaborative approach established by its founding organizations to successfully advance environmental excellence.

Timeline



2007

- **OCTOBER**
Green Marine is officially launched in Quebec City!

2008

- **JANUARY**
The Green Marine Management Corporation is established.
- **FEBRUARY**
GreenTech 2008 - Green Marine's first annual conference - is held in Montreal.
- **OCTOBER**
The first self-evaluation guides are released covering six initial performance indicators.

2009

- **MAY**
Annual results are published for the first time for Green Marine's founding participants.
- **NOVEMBER**
The inaugural edition of Green Marine Magazine is published.

2014

- **NOVEMBER**
Green Marine hires a West Coast Program Manager, and opens a new office in Seattle, WA.

2015

- **JANUARY**
New indicator: Waste Management (ports and terminals).

2016

- **FEBRUARY**
The program's 100th participant is welcomed!
- **NOVEMBER**
Green Marine hires an East Coast Program Manager, and opens a new office in Atlantic Canada.

2021

- **JANUARY**
New indicator: Community Relations.
- **SEPTEMBER**
A second U.S.-based Program Manager is hired.

2022

- **MAY**
A new website is launched along with the first 100% digital issue of Green Marine Magazine.
- **OCTOBER**
The 15th anniversary of the environmental certification program!

2023

- **JANUARY**
New indicator: Aquatic Ecosystems (ports). Launch of criteria specifically for shipyards.
- **MAY**
The program's 100th supporter is welcomed!
- **JUNE**
15th year of consecutive annual performance results.

2010

- **JANUARY**
Green Marine appoints an Executive Director.
New indicator: Environmental Leadership (ports).
- **OCTOBER**
Green Marine opens its membership to all maritime companies operating in Canada and the United States.

2011

- **JANUARY**
Two new indicators: Prevention of Spills and Leakages, Dry Bulk Handling and Storage.

2012

- **JANUARY**
New indicator: Garbage Management (ship owners).
- **APRIL**
Green Marine signs a Memorandum of Cooperation with Transport Canada.

2017

- **JANUARY**
New indicator: Underwater Noise (ports and ship owners).

2019

- **NOVEMBER**
A second staff position in Communications is created.

2020

- **JANUARY**
The Smart Guide is launched as a pilot project.
- **MARCH**
New indicator: Ship Recycling (ship owners).
- **APRIL**
Green Marine Europe is officially launched!

2024

- **JANUARY**
Expanded pool of accredited verifiers.
Improved and revised Smart Guide launched.
- **MAY**
Green Marine International is incorporated and its first AGM is held.



Program development highlights from 2022 to 2023

Ship owners had the following changes to their performance indicators:

- The **aquatic invasive species** performance indicator was revised to keep pace with regulations and remain beyond compliance at Level 2 and higher, as well as to reflect best practices in managing ballast water and biofouling. Participants held steady with the new criteria, making an overall net improvement of two levels.
- In the **greenhouse gas emissions (GHG)** performance indicator, the methodology for the required inventory at Level 3 was revised to address biofuels, carbon offsets, and scoping for chartered vessels. The GHG intensity reduction target at Level 4 was raised to incrementally achieve a cumulative 40% reduction by 2030. Ship owners improved by a net seven levels.

Landside participants:

- All the performance indicators were thoroughly reviewed for the new standalone criteria for **shipyards** in 2023. As part of the program's overall decarbonization goals, the greenhouse gas and air pollution performance indicator for shipyard operations was revised to set a "carbon-neutral by 2050" target for the Level 4.1 criterion.
- In **spill prevention and stormwater management**, the performance indicator's Level 3.4 criterion now requires all near-shore hydraulic equipment to be assessed for switching from conventional to inherently and readily biodegradable, minimally toxic and non-bio-accumulative lubricants.



“What an incredible journey this is right now for all of Green Marine. It’s truly inspiring to see the industry’s commitment and dedication to sustainability, as reflected in the growth of Green Marine’s membership and the continual improvement of our participants in their environmental performance.”

- *David Bolduc*
President of Green Marine



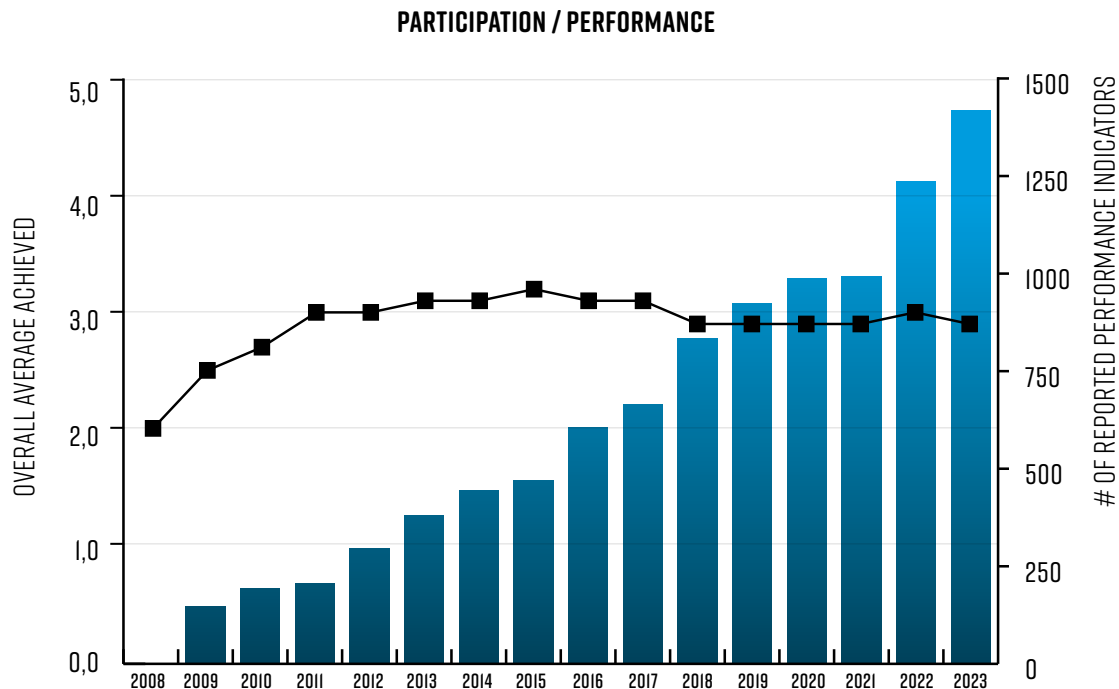
BIGGEST EVER INCOMING CLASS

For their 2023 year of operations, Green Marine participants submitted a total of 220 self-evaluations on their environmental performance, which is a >20% increase over the number of reports for the previous year. This increase comes from welcoming the largest-ever incoming class of new participants reporting on their performance for the first time. Terminals account for most (more than half) of the increase as either new participants or as existing participants submitting additional terminal locations for certification. From the 220 self-evaluations, the results of more than 1,400 individual performance indicators were reported, tallied, and synthesized for this overview.

The great news is that the performance by Green Marine

participants held steady with a global average of 2.9 on the program's 1-to-5 scale. This mid-point reflects the program's rigour with demanding but still feasible objectives, as well as the typically lower entry point of some new participants as they initially benchmark and then take some time to familiarize themselves with all the criteria before embarking on specific improvements.

As in past years, Green Marine is seeing a steady improvement, averaging 10% annually, by those participants in the program over a longer term. This continual improvement is at the core of the program. The program's 14 performance indicators serve as a framework to guide participants in a clear step-by-step way to the higher performance levels.

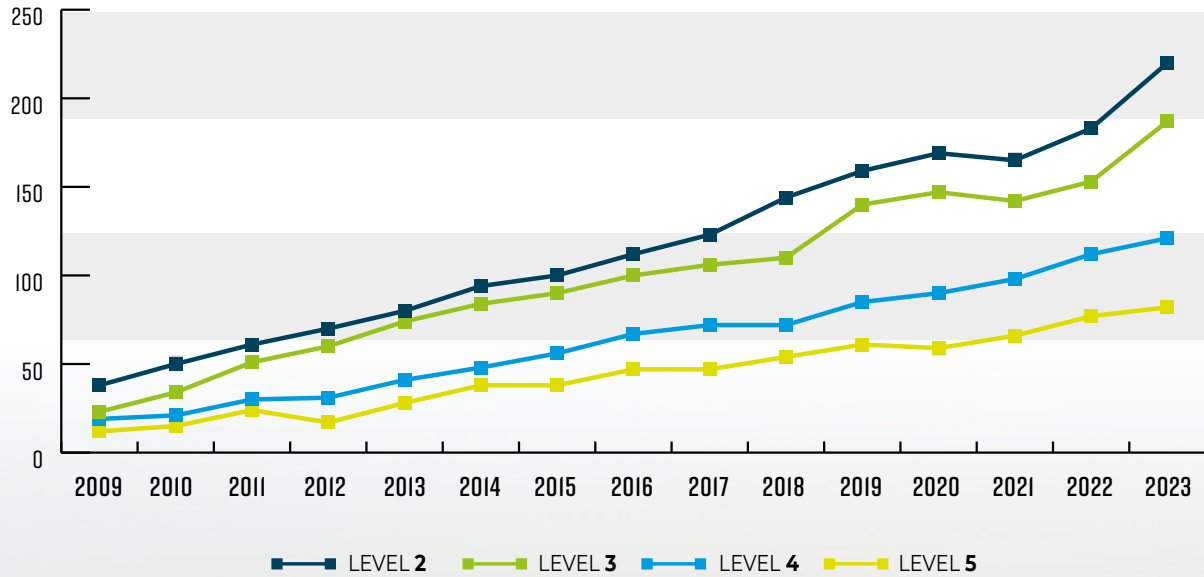


Continual growth and improvement: The 15% increase in the number of performance indicators reported corresponds to the increase in reporting participants, while the steady overall average represents continual improvement even with program requirements often being augmented or expanded from one year to the next.



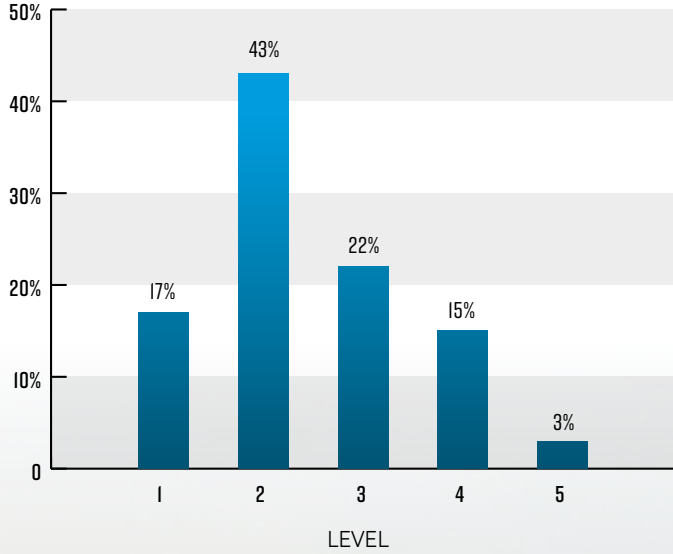
2023 RESULTS ANALYSIS

CONTINUAL IMPROVEMENT



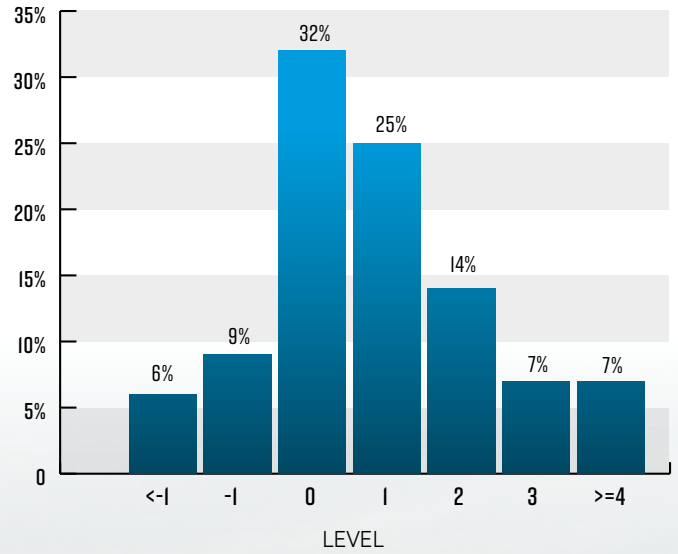
The upward trends are tangible signs that an increasingly significant portion of the maritime industry improves its environmental performance year over year beyond the minimum requirement to maintain the certification with an increasing number of participants reaching Levels 4 and 5. The 2023 results show that on average – for each additional year reporting in the program, participants' average level achieved increased by 10% per year. (See p. 25 for a description of the program's 1-to-5 scale and all the individual results).

PARTICIPANTS WITH AN AVERAGE AT OR ABOVE LEVELS 1, 2, 3, 4 AND 5



The Green Marine program is demanding. Reaching higher levels requires a lot of effort and hard work. Only 3% of participants reach the highest level in all performance indicators. 18% of them achieve an average equal to or higher than level 4.

NET LEVELS IMPROVEMENT



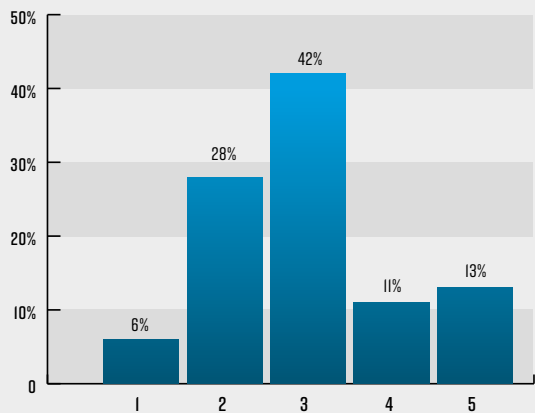
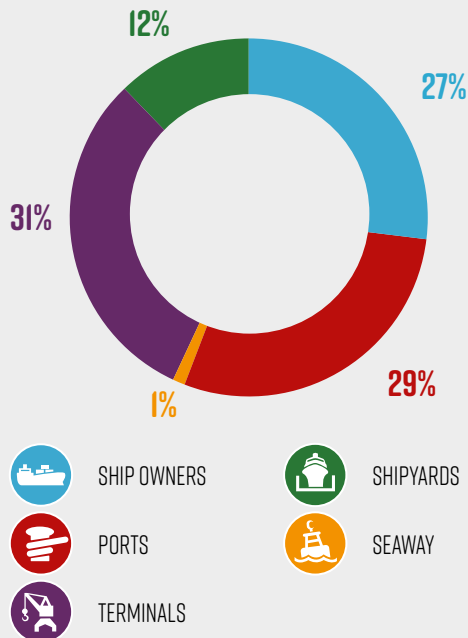
More than half (54%) of Green Marine's participants improved by one or more levels when compared to their 2022 evaluations. The overall average level improvement was 0.8.



Membership distribution

The Green Marine program structure has been designed and carefully evolved to integrate participants from a diverse range of maritime sectors, each reporting to requirements specific to their type of operations and/or activities.

DISTRIBUTION OF ALL PARTICIPANT TYPES



Decarbonization has become imperative, and Green Marine participants from all sectors are answering the call to undertake this global challenge. Two-thirds of them achieved Level 3 or higher for the GHG performance indicator, which requires conducting an annual inventory. Measuring their carbon emissions is the first essential step to establishing a benchmark for gauging further improvements.

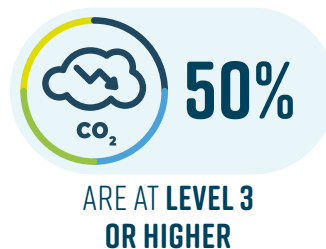
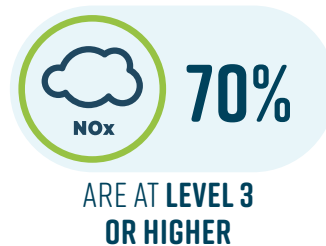


SHIP OWNERS

Ship owners made the biggest improvement in terms of **underwater noise** by gaining 13 levels overall within this performance indicator.

Two-thirds of Green Marine's ship owners are now at Level 2 or higher in **ship recycling**.

Green Marine's ship owners are successfully reducing their **air emissions**. In fact, this is the most improved sector with, on average, each participant achieving an entire level higher than in 2022. For all air emissions indicators, at least half of the participants are reaching Level 3 or higher, which means they have produced annual inventories.



Landside participants

With both urbanization and waterfront leisure increasing, it has become more important for ports, terminals, shipyards, and the Seaway corporations to harmoniously co-exist with their neighbours. Green Marine participants are taking this seriously: the community impacts and community relations indicators collectively account for 65 net levels of improvement by these participants, which represents 70% of the 91 net level upgrades by landside participants in 2023.

This significant improvement was achieved even with the scope of the **community impacts** performance indicator broadened from consisting of impacts from participant activities and operations on area residents to encompassing impacts on local communities, which may include Indigenous Peoples, local businesses, or individual and/or organizational users of recreational areas.

Close to half of the improvements within this indicator saw these participants move from Level 2 or 3 to Level 4 by various means, some of which are noise or dust monitoring, dust and aerosol suppression/containment, truck movement optimization, improved lighting, or noise reduction through new barriers or quieter equipment.

No major revisions were made to the **community relations** performance indicator for 2023. Nearly 60% improved to reach either Level 3 or 4. These higher levels each require, among other measures: a communication strategy or plan with a focus on responsiveness, transparency, and engagement; community involvement through social or environmental activities or events; and community engagement by giving stakeholders a voice in the decision-making process.





The biggest improvement for **ports** is found in the community relations performance.



18 LEVELS UP



13 LEVELS UP

Green Marine ports are also taking new steps to better address biodiversity protection through the new **aquatic ecosystems** performance indicator. As is always the case with a new performance indicator, reporting on the criteria was optional for 2023. Nevertheless, 45% of ports benchmarked their performance for this indicator during this optional year and will be more familiar with it when reporting on it becomes obligatory for 2024 certification.



The standalone criteria for **shipyards** established for the first time for 2023 reporting likely contributed to more shipyards becoming aware of and joining the program. The number of shipyards rose by 44%, making this sector of participants the largest in terms of growth percentage over the previous year.



INCREASED PARTICIPATION

Shipyards that reported their annual results for more than one year averaged a 1.2 level improvement in 2023 over 2022.



2022 TO 2023



Terminal operators constitute the biggest sector of participants, with 92 reports submitted for 159 terminal locations for the 2023 evaluations.



The Canadian and U.S. **Seaway** corporations continue to report jointly and had a combined average of 4.6 for their 2023 evaluation, putting them among the top 10% of all participants.

Certification process



ANNUAL SELF-EVALUATION

Completion of online **Smart Guide** by participants

Due March 15



EXTERNAL VERIFICATION

Verification every 2 years by an **accredited external verifier**

Due early May



PUBLICATION OF RESULTS

Annual Performance Report released at **GreenTech**

In June

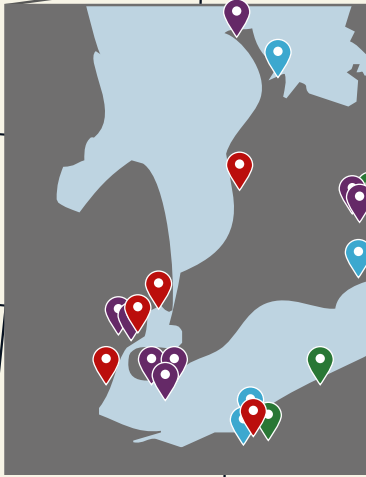


CONTINUAL IMPROVEMENT

To **become** certified: achieve at least one Level 2 in the 1st year;

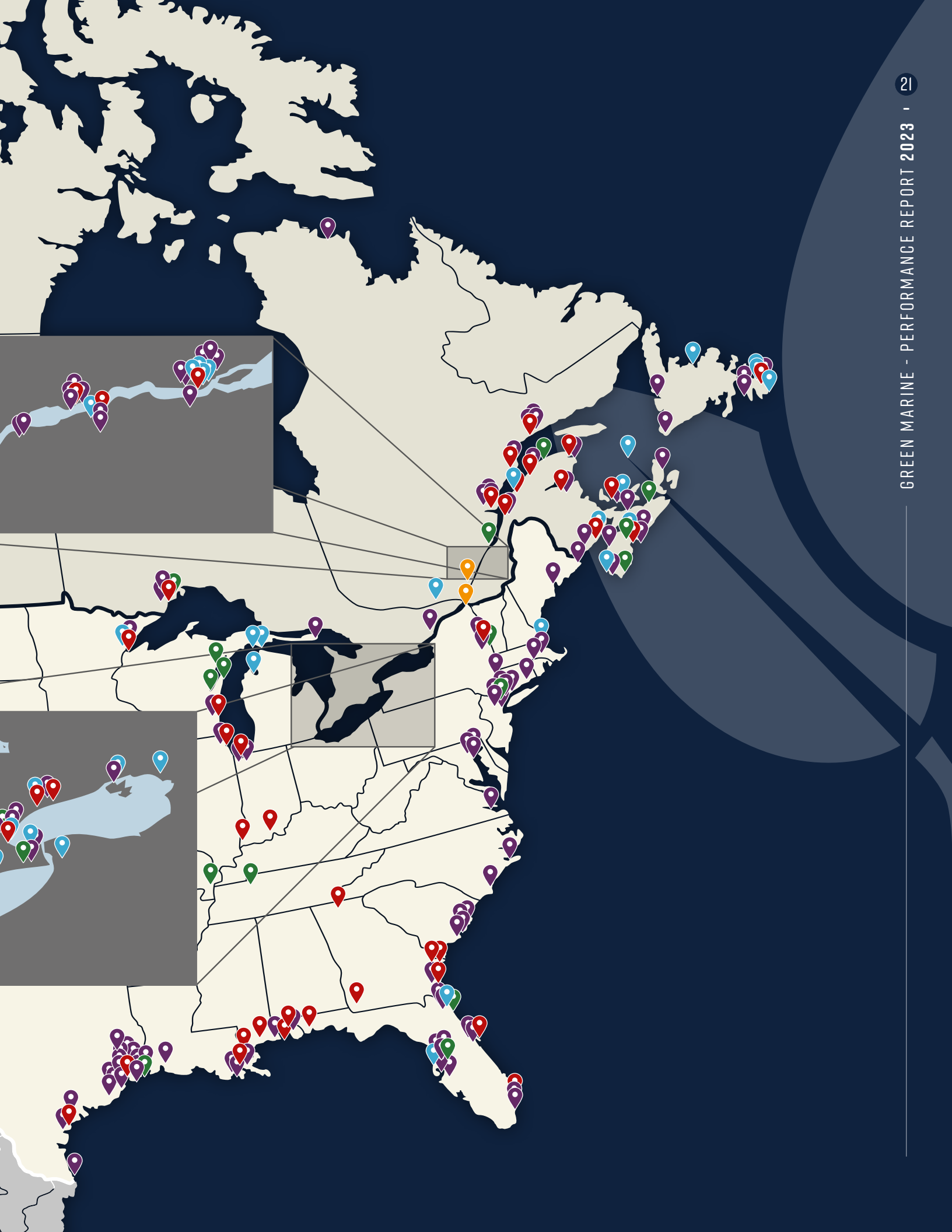
To **maintain** certification: continual improvement of one level each year until all applicable indicators \geq Level 2





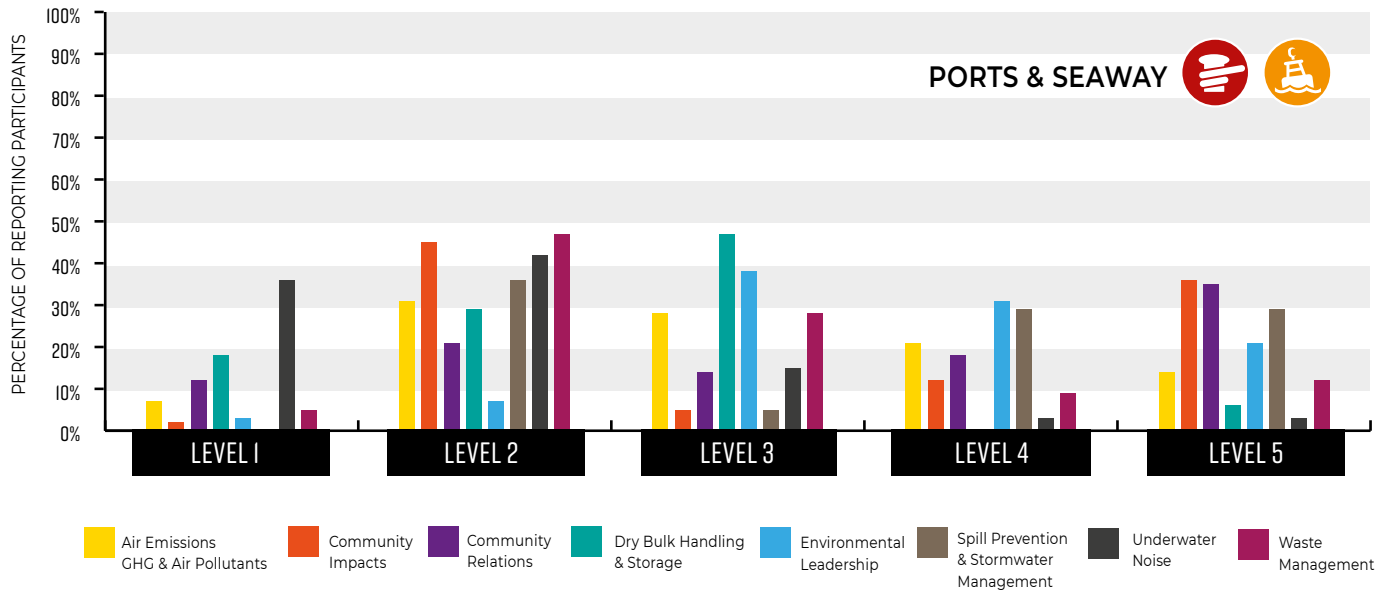
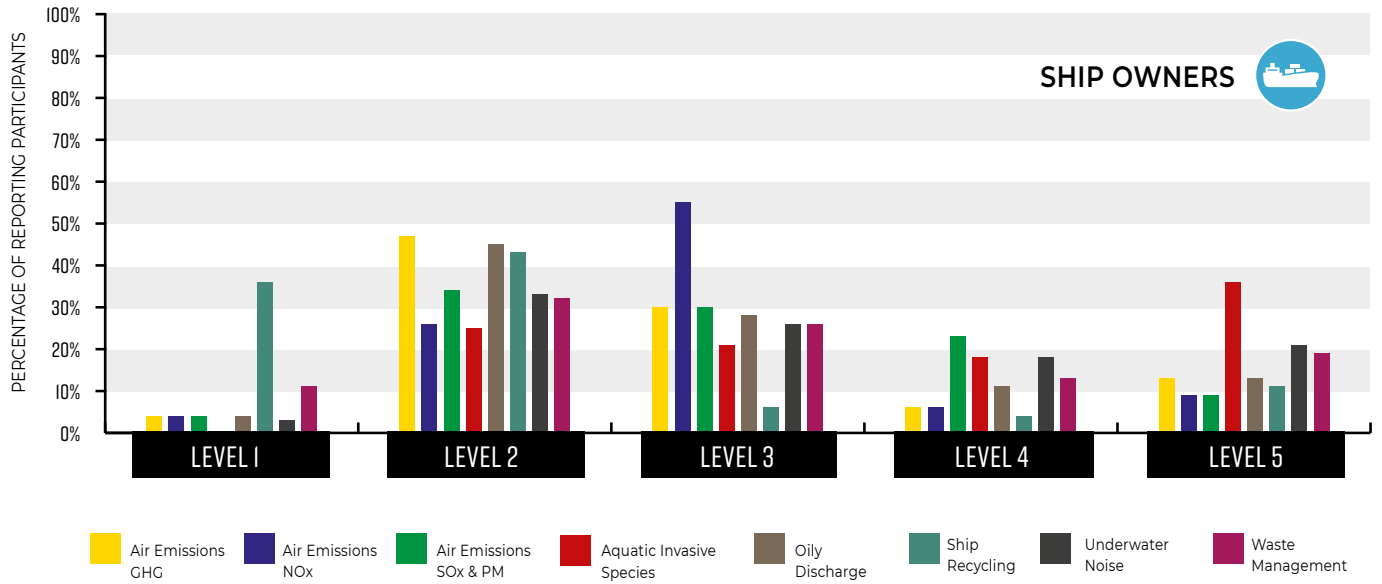
THE PARTICIPANTS

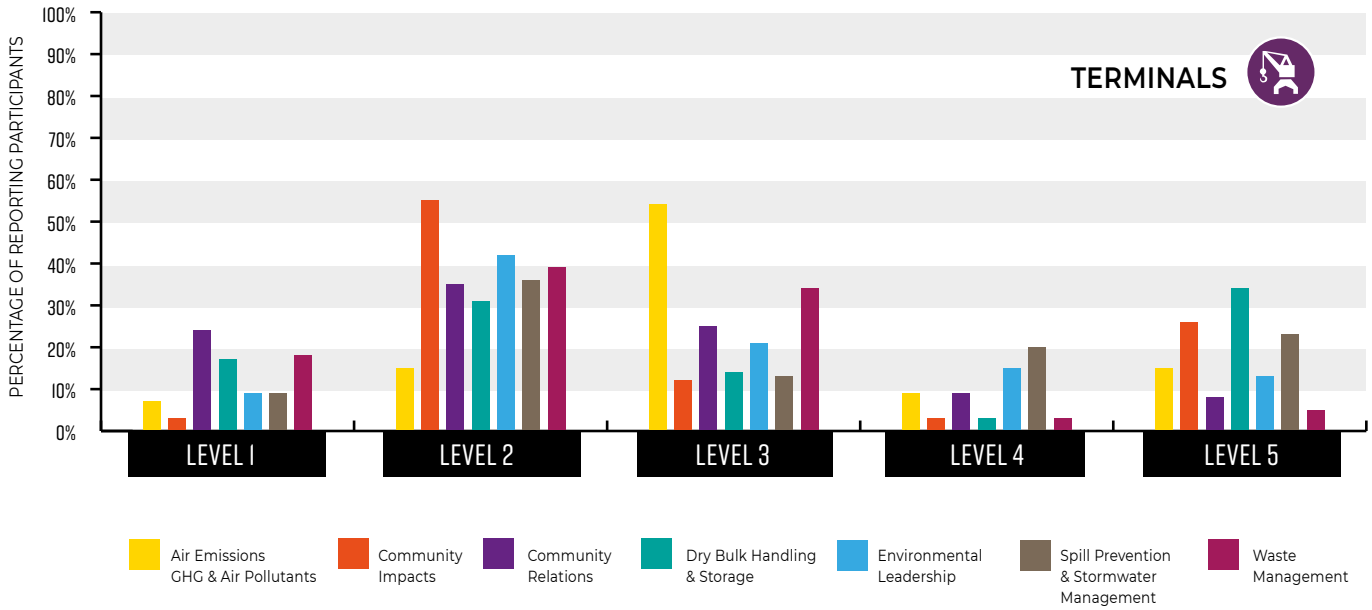
-  Ship owners
-  Ports
-  Terminals
-  Shipyards
-  Seaway



22 Results by participant sector for each applicable performance indicator

A voluntary initiative, the Green Marine environmental certification program sets out a clear course of verifiable concrete actions for its participants to achieve sustainability beyond regulatory obligations. The environmental priorities are shared by the overall participating membership, but the criteria are specific to each type of maritime operations.





All the graphs shown in this report are based on the results as of May 15, 2024.



Verification process

MORE VERIFIERS AND VERIFICATION TOOLS

The steadily increasing number of participants seeking Green Marine certification, along with the program's expanding criteria, have necessitated recruiting and training more verifiers. Additionally, verifiers are now required under Green Marine's new multi-site policy to visit more sites proportionally to the number of locations amalgamated under a participant's singular evaluation.

New verifiers have been selected from among the candidates who submitted applications based on both their qualifications and the current requirements in specific geographic regions. As always, verifiers undergo Green Marine training and have their work periodically reviewed to ensure the verification process is sufficiently thorough and consistent across the membership.

Life became easier for both participants and verifiers this year with the Smart Guide's enhancements. The online tool allowed for more intuitive, easier reporting, with a sub-evaluation setting dedicated to multi-site participants reporting at the corporate level. The new portal specifically for verifiers also made the 2023 verifications simpler by facilitating a criterion-by-criterion review with a corresponding aggregation of the verified results. Improvements continue to be made with an auto-fill capacity being introduced for the next round of evaluations.



Amanda Millay - Alaska Marine Highway System (AMHS), Eleanor Kirtley - Green Marine, Capt. Katharine Sweeney - Verifier, during AMHS verification in Bellingham, Washington, in March 2024.

Performance indicators



2023 results

INTERPRETATION NOTES

The term n/a (not applicable) appears several times in the report's tables because the issues addressed by the program do not necessarily apply to all participants. The published results indicate each participant's self-evaluated and subsequently verified performance. While

the program's self-evaluation is comprehensive, it is not an exhaustive assessment of all environmental matters related to a participant's maritime operations. Green Marine has not itself evaluated the environmental performance of the participating organizations.



The results share each participant's environmental performance in 2023 within each applicable performance indicator on the program's 1-to-5 scale.



	AIR EMISSIONS GHG & AIR POLLUTANTS	COMMUNITY IMPACTS	COMMUNITY RELATIONS	DRY BULK HANDLING AND STORAGE	ENVIRONMENTAL LEADERSHIP	SPILL PREVENTION AND STORMWATER MANAGEMENT	UNDERWATER NOISE	WASTE MANAGEMENT
Alabama Port Authority	4	2	3	2	3	2	n/a	3
Bécancour Waterfront Industrial Park	3	2	1	n/a	3	2	n/a	2
Belledune Port Authority	3	2	1	n/a	3	3	2	2
Canaveral Port Authority	3	2	2	n/a	3	5	2	2
Corporation de Gestion du Port de Baie-Comeau	2	2	1	n/a	2	2	2	1
Duluth Seaway Port Authority	3	5	4	3	4	2	n/a	3
Georgia Ports Authority	3	2	4	3	3	4	1	2
Greater Victoria Harbour Authority	4	5	5	n/a	5	5	2	3
Halifax Port Authority	4	4	5	n/a	5	5	2	5
Hamilton-Oshawa Port Authority	4	5	5	n/a	4	4	n/a	4
Illinois International Port District	1	2	5	3	4	4	n/a	2
Montréal Port Authority	4	5	5	n/a	5	5	n/a	5
Northwest Seaport Alliance	5	3	4	n/a	4	5	3	3
Port Alberni Port Authority	2	2	2	1	3	2	2	3
Port Everglades	2	2	3	n/a	4	2	2	2
Port Milwaukee	3	2	3	n/a	3	2	n/a	2
Port of Albany	3	5	5	n/a	4	4	n/a	2
Port of Anacortes	3	2	1	3	3	4	1	2
Port of Bellingham	1	2	1	n/a	3	2	1	2
Port of Cleveland	4	2	2	n/a	4	5	n/a	2
Port of Corpus Christi	5	5	5	5	5	5	n/a	5
Port of Everett	2	2	4	n/a	3	5	2	2
Port of Galveston	3	4	5	n/a	4	4	2	3
Port of Goderich	3	2	2	n/a	3	4	n/a	1
Port of Gulfport	2	2	2	2	3	4	1	2
Port of Hueneme	5	5	5	n/a	5	5	3	5
Port of Longview*	3	2	1	3	3	4	n/a	2
Port of Monroe	2	2	1	1	1	2	n/a	2
Port of Nanaimo	3	5	3	n/a	4	2	2	2
Port of New Orleans	3	5	5	n/a	4	5	n/a	3
Port of Oakland	4	2	4	n/a	4	4	1	3
Port of Olympia	2	2	2	3	2	4	1	2
Port of Pascagoula	2	2	2	n/a	3	4	1	2
Port of Pensacola	2	2	2	1	2	4	1	1
Port of Redwood City	1	1	1	2	1	2	1	2
Port of San Diego	5	5	5	n/a	5	5	2	5
Port of Seattle	5	5	5	n/a	5	5	3	5
Port of Stephenville	1	2	2	2	3	2	1	2
Port of Stockton	4	5	5	3	5	5	n/a	2
Port of Valleyfield	2	2	2	n/a	3	2	n/a	2
Port Saint John	3	4	5	n/a	4	2	2	3
Ports of Indiana - Burns Harbor	2	4	4	n/a	3	4	n/a	3
Ports of Indiana - Jeffersonville	2	4	4	n/a	3	3	n/a	3
Ports of Indiana - Mount Vernon	2	3	3	n/a	3	2	n/a	3
PortsToronto	2	2	4	2	4	2	n/a	2
Prince Rupert Port Authority	5	5	5	n/a	5	4	3	4
Québec Port Authority	5	5	5	n/a	5	5	n/a	5

PORTS

	AIR EMISSIONS GHG & AIR POLLUTANTS	COMMUNITY IMPACTS	COMMUNITY RELATIONS	DRY BULK HANDLING AND STORAGE	ENVIRONMENTAL LEADERSHIP	SPILL PREVENTION AND STORMWATER MANAGEMENT	UNDERWATER NOISE	WASTE MANAGEMENT
Saguenay Port Authority	4	5	2	n/a	4	4	3	3
Sept-Îles Port Authority	3	4	3	3	4	3	4	4
Société portuaire du Bas-Saint-Laurent et de la Gaspésie	2	2	2	n/a	2	2	1	2
St. John's Port Authority, NL	2	5	3	n/a	3	2	2	3
Summerside Port Corporation	2	3	2	n/a	3	2	2	3
Thunder Bay Port Authority	3	4	4	n/a	3	2	n/a	2
Trois-Rivières Port Authority	4	5	5	n/a	4	5	n/a	2
Vancouver Fraser Port Authority	4	5	5	n/a	5	5	5	3
Windsor Port Authority	2	5	5	n/a	4	2	1	2

SEAWAY

	AIR EMISSIONS GHG & AIR POLLUTANTS	COMMUNITY IMPACTS	COMMUNITY RELATIONS	ENVIRONMENTAL LEADERSHIP	SPILL PREVENTION AND STORMWATER MANAGEMENT	WASTE MANAGEMENT
Great Lakes St. Lawrence Seaway Development Corporation / Saint Lawrence Seaway Management Corporation †	4.1	5.0	4.9	4.9	4.9	4.0

† Each Seaway corporation filed an individual evaluation to Green Marine and had its results separately verified, but they both opted to publish their results jointly to reflect their allied efforts in achieving environmental excellence. The published results are the weighted average of the individual results based on the number of locks managed by each Seaway corporation.

SHIPYARDS

	AIR EMISSIONS GHG & AIR POLLUTANTS	COMMUNITY IMPACTS	COMMUNITY RELATIONS	ENVIRONMENTAL LEADERSHIP	SPILL PREVENTION AND STORMWATER MANAGEMENT	WASTE MANAGEMENT
Arcosa - Ashland City	1	1	1	1	2	2
Arcosa - Caruthersville	1	1	1	1	2	2
Arrow Marine Services	3	2	3	2	2	2
Bayonne Dry Dock & Repair	3	4	2	2	5	2
British Columbia Ferry Services Inc.	3	3	3	4	3	3
Conneaut Creek Ship Repair, Inc.	2	1	1	1	1	1
Fincantieri ACE Marine	3	2	2	2	2	2
Fincantieri Bay Shipbuilding*	3	2	1	1	2	2
Fincantieri Marinette Marine	2	2	2	3	2	2
Great Lakes Shipyard	2	2	2	1	3	2
Gulf Copper	2	2	1	2	2	1
Hendry Marine Industries (Gulf Marine Repair)	2	2	1	1	2	1
Marine Recycling Corporation	3	2	1	2	2	3
Mersey Marine Limited*	2	1	1	1	2	2
Motive Power Marine	2	2	2	2	3	3
Ocean Group - Ocean Industries Inc.	3	2	2	3	2	2
Ocean Group - Verreault Shipyard*	3	2	1	1	1	2
Ontario Shipyards	3	2	2	2	2	2
Point Hope Maritime Ltd.	2	4	3	3	4	3
RJ MacIsaac Construction	3	4	4	3	3	3
Seaspan Shipyards	4	4	3	4	4	5
Shelburne Ship Repair	3	2	1	1	2	3
Washington State Ferries	3	2	4	3	2	3

n/a: non applicable

* New participant whose results have not yet been verified.



TERMINALS



	AIR EMISSIONS GHG & AIR POLLUTANTS	COMMUNITY IMPACTS	COMMUNITY RELATIONS	DRY BULK HANDLING AND STORAGE	ENVIRONMENTAL LEADERSHIP	SPILL PREVENTION AND STORMWATER MANAGEMENT	WASTE MANAGEMENT
ABC Recycling Ltd. (Nanaimo)	2	2	2	n/a	2	2	2
AET Offshore Services	1	2	1	n/a	1	2	2
AltaGas	5	5	5	n/a	5	5	3
Bay Ferries Limited	2	2	2	n/a	3	2	2
British Columbia Ferry Services Inc.	3	2	3	n/a	3	2	3
Desgagnés Logistik Valport	3	2	2	2	2	2	2
DP World Prince Rupert Inc.	5	5	2	n/a	2	4	3
Epic Consolidated Operations, LLC	2	1	1	n/a	1	1	1
G3 Canada Limited (Hamilton)	5	5	3	5	5	5	2
G3 Canada Limited (Quebec)	3	2	3	2	3	3	2
G3 Canada Limited (Thunder Bay)	4	5	3	5	5	4	5
G3 Canada Limited (Trois-Rivières)	3	4	3	5	4	3	3
G3 Terminal Vancouver	5	5	4	5	5	5	5
GCT Global Container Terminals Inc. (GCT Deltaport, GCT Vanterm)	5	5	5	n/a	5	5	4
Glencore (Quebec)	4	5	4	5	5	5	4
Groupe Somavrac - Fonbrai (Trois-Rivières)*	2	2	2	2	2	2	2
Groupe Somavrac - Fonbrai (Saguenay)	3	2	2	n/a	2	2	2
Groupe Somavrac - Porlier Express (Sept-Îles)	3	3	2	n/a	3	3	3
Groupe Somavrac - Servitank (Trois-Rivières)	2	2	2	n/a	3	2	2
Groupe Somavrac - Servitank Inc (Bécancour)	3	2	2	n/a	2	4	2
Gulf Stream Marine, Inc. (Corpus Christi, Manchester, Care, Freeport, Brownsville)	3	3	3	n/a	3	3	3
Houston Terminal LLC*	5	4	1	n/a	3	5	3
Kildair Service ULC	3	2	2	n/a	4	5	3
Logistec Corporation (Albany, Burns Harbor, Calvert, Eastport, Hamilton, Lake Charles, Milwaukee, Port Manatee, Rideau Bulk)	3	2	3	2	2	2	2
Logistec Corporation Canada (Contrecoeur, Corner Brook, Deception Bay, Halifax, Montreal, Port Colborne, Sept-Îles, Thunder Bay, Trois-Rivières)	3	3	3	3	3	3	3
Logistec USA Inc. (Balterm, Brunswick, Crossglobe, Port Manatee)	3	3	3	3	3	3	2
Marine Atlantic Inc.	4	3	3	n/a	4	4	3
Metro Ports - Anacortes	2	2	1	2	2	2	1
Metro Ports - Burns Harbor	3	2	1	1	1	2	2
Metro Ports - Galveston	2	2	2	1	2	2	2
Metro Ports - Long Beach	1	1	1	2	1	1	1
Metro Ports - Stockton	1	2	1	1	1	2	1
Montreal Gateway Terminals Partnership	5	5	4	n/a	5	4	3
Neptune Bulk Terminals (Canada) Ltd.	5	5	5	5	5	5	5
New Orleans Terminal LLC	3	5	3	n/a	2	5	3
Norcan Petroleum Group Inc.	3	3	2	n/a	3	3	3
Northumberland Ferries Limited	2	2	2	n/a	3	2	2
Oceanex (St. John's)	3	2	1	n/a	2	3	3
Owen Sound Transportation Company	2	2	2	n/a	2	2	2
Pacific Coast Terminals Co. Ltd.	3	5	3	5	4	5	3
Pembina Infrastructure and Logistics LP	3	5	4	n/a	2	4	2
Picton Terminals	3	2	2	2	2	2	3
PNCT	3	2	4	n/a	2	4	2
Ports America (Bayport)	3	2	2	n/a	3	4	1
Ports America (Charleston)	3	1	1	n/a	1	1	1
Ports America (Freeport)	3	2	2	n/a	2	1	1
Ports America (Galveston)	3	2	2	n/a	2	1	1

	AIR EMISSIONS GHG & AIR POLLUTANTS	COMMUNITY IMPACTS	COMMUNITY RELATIONS	DRY BULK HANDLING AND STORAGE	ENVIRONMENTAL LEADERSHIP	SPILL PREVENTION AND STORMWATER MANAGEMENT	WASTE MANAGEMENT
Ports America (Gulfport)	3	2	2	n/a	2	1	2
Ports America (Hueneme)	3	2	2	n/a	3	3	2
Ports America (LA Cruise)	3	2	2	n/a	2	2	2
Ports America (MCT)	3	2	2	n/a	2	2	2
Ports America (New Orleans)	4	3	2	n/a	3	5	3
Ports America (PNAT)	3	2	2	n/a	2	2	2
Ports America (Seattle Cruise)	3	2	2	n/a	2	3	2
Ports America (Tacoma)	3	2	2	n/a	3	2	2
Ports America (Tampa)	3	2	1	n/a	2	1	1
Ports America (Terminal Link)	3	2	4	n/a	2	4	2
Ports America (West Basin Container Terminal)	3	2	2	n/a	3	3	3
PSA Halifax	5	5	3	n/a	5	4	3
QSL - Integrated Logistics (Argentina)	3	2	3	n/a	2	3	2
QSL America (NASCO, Empire Stevedoring New Orleans, Houston)	3	5	4	n/a	4	4	3
QSL Canada Inc. (Anse Au Foulon, Baie- Comeau, Beauport, Bécancour, Belledune, Côte Ste-Catherine, Gaspé, Grande-Anse, Gros-Cacouna, Halifax, Hamilton, Matane, Montréal - Terminal Bickerdike, Oshawa, Sheet Harbour, Sept-Îles, Sorel- Tracy, Trois-Rivières)	3	5	3	4	2	4	2
Rio Tinto (Port-Alfred)	5	5	5	5	5	5	3
Southern Fleet & Logistics Group	1	2	1	n/a	1	1	1
SSA Marine (B63 Matson)	3	2	1	n/a	2	2	1
SSA Marine (Baltimore MD, Bayonne NJ, Brunswick GA, Charleston SC, Duluth MN, Galveston TX, Houston TX, Jacksonville FL, Miami FL, New Orleans LA, Port Canaveral FL, Port Hueneme CA, Stockton CA, Tampa FL, and Vancouver BC)	4	3	2	5	4	5	3
SSA Marine (Long Beach Matson)	2	2	1	n/a	2	2	1
SSA Marine (San Diego)	3	2	1	3	2	2	1
SSA Marine (Stockton)	3	2	1	1	3	2	1
SSA Marine (West Sacramento)	1	2	1	2	2	2	1
SSA Marine (West Sittum Matson)	1	2	1	n/a	2	2	1
Sterling Fuels Limited (Windsor Terminal)	3	3	2	n/a	4	5	3
Terment Montréal Inc. (Viau, Maisonneuve)	4	2	2	n/a	3	2	2
Tidal Coast Terminals Ltd.	3	2	1	n/a	2	2	3
TOTE (Jacksonville, San Juan)	2	2	3	n/a	3	2	2
Trans Mountain (Westridge terminal)	3	3	4	n/a	4	4	3
TraPac (Los Angeles)	5	5	3	n/a	3	5	3
Trigon	5	5	5	5	5	5	5
Tymac Launch Service Ltd.	3	3	1	n/a	2	2	3
Valero Energy (Gaspé)	3	2	3	n/a	2	4	2
Valero Energy (Jean-Gaulin Refinery)	4	4	5	n/a	5	4	3
Valero Energy (Montreal-East Terminal)	3	5	3	n/a	4	5	3
Valleytank	3	2	2	n/a	2	5	2
Washington State Ferries	3	2	5	n/a	4	2	3
Washington United Terminals*	2	2	1	n/a	2	4	1
Waterfront Petroleum Terminal Company	2	2	1	1	1	2	2
Waterson Terminal Services LLC	3	2	1	3	2	4	2
West Coast Reduction Ltd.	4	5	3	n/a	4	5	3
Western Stevedoring - Lynnterm	4	5	3	n/a	4	5	4
Western Stevedoring - Squamish Terminals	5	5	3	n/a	4	4	5
Westshore Terminals	3	5	3	2	2	2	2
Yellowline Asphalt Products Ltd.	2	5	2	n/a	2	5	2

n/a: non applicable

* New participant whose results have not yet been verified.



SHIP OWNERS

	AIR EMISSIONS GHG	AIR EMISSIONS NOx	AIR EMISSIONS SOx AND PM	AQUATIC INVASIVE SPECIES	OILY DISCHARGE	SHIP RECYCLING	UNDERWATER NOISE	WASTE MANAGEMENT
Alaska Marine Highway System	2	2	2	3	2	2	3	3
Algoma Central Corporation	5	3	4	5	5	4	5	4
American Steamship Company	1	1	1	2	1	1	n/a	1
Atlantic Towing Limited	3	3	4	3	3	2	3	4
Bay Ferries Limited	2	2	2	n/a	2	2	2	2
British Columbia Ferry Services Inc.	2	3	3	n/a	2	1	4	2
Canada Steamship Lines	5	4	4	5	5	4	5	5
Canfornav Limited	3	3	3	5	4	2	2	5
Catherwood Towing*	2	2	2	n/a	2	1	2	1
Coastal Shipping Ltd.	4	3	3	5	3	3	3	2
Croisières AML	3	3	3	n/a	4	1	3	3
CSL International	3	3	4	5	4	5	4	5
CTMA Group	2	3	3	3	2	1	3	3
Federal Fleet Services	3	3	2	5	2	5	4	5
Fednav Limited	5	5	4	5	4	5	5	5
FRS Clipper	2	2	2	2	2	1	2	1
Grand River Navigation	1	1	1	2	1	1	n/a	1
Great Lakes Towing Company	2	2	2	n/a	3	2	n/a	2
Groupe Desgagnés - Transport Desgagnés Inc.	5	5	5	5	5	5	5	5
Horizon Maritime Services Ltd	5	3	3	4	5	3	4	3
Interlake Steamship Company	3	3	2	4	2	2	n/a	2
Laurentian Pilotage Authority	2	2	2	n/a	3	2	4	5
Lower Lakes Towing Ltd	2	3	4	4	2	2	2	2
Marine Atlantic Inc.	4	3	3	n/a	3	3	3	4
Marine Towing of Tampa	3	3	3	3	4	1	3	4
McAsphalt Marine Transportation Ltd.	3	3	4	5	3	2	2	3
McKeil Marine Limited	3	3	3	3	2	1	2	3
NEAS	3	3	3	4	3	2	5	3
North Arm Transportation Ltd.	3	3	3	n/a	3	1	3	4
Northumberland Ferries Limited	2	2	2	n/a	2	2	2	2
Ocean Choice International	2	2	2	2	2	2	2	2
Ocean Group – Marine Works and Dredging	2	3	2	n/a	2	1	1	1
Ocean Group – Ocean Towing and Marine Transportation	2	4	4	n/a	3	1	2	3
Oceanex	3	4	4	4	5	2	4	5
Ontario Ministry of Transportation	2	2	2	n/a	2	2	n/a	2
Owen Sound Transportation Company	2	2	2	n/a	2	2	n/a	2
Picton Terminals (tugboats)	2	2	2	2	2	2	n/a	3
Puget Sound Pilots	2	2	3	n/a	2	1	3	2
Reformar	3	3	3	3	3	2	2	3
Saam Towage Canada Inc.	2	3	4	n/a	3	2	4	2
Seaspan Marine Transportation	4	5	5	n/a	3	1	5	4
Shaver Transportation Company	2	3	2	2	2	1	2	2
Shepler's Mackinac Island Ferry	2	3	2	n/a	2	1	n/a	2
Société des traversiers du Québec	2	3	3	n/a	3	2	2	2
TOTE	2	3	5	2	2	1	3	3
Viking Expeditions	5	5	5	5	5	5	5	5
Washington State Ferries	3	3	4	n/a	2	2	5	3

n/a: non applicable

* New participant whose results have not yet been verified.

Future program development

As part of its 2024-2026 development plan, Green Marine is already looking at the changes that might be necessary to keep the program's criteria fully relevant and sufficiently demanding at each level beyond regulations for reporting environmental efforts in the coming years.

This includes a continued examination of the **community impacts** performance indicator applicable to ports to encompass additional impacts, such as the negative effects of persistent operations-related vibrations on a community, or displeasing aesthetic. The **underwater noise** performance indicator applicable to ports is under further review to develop progressive steps to the program's higher levels, such as by possibly encouraging collaboration with voluntary programs or on research and development.

For shipyards, Green Marine will continue to collaborate with Green Marine Europe in developing further

performance indicators that relate specifically to improving the environmental sustainability of shipyard operations.

In preparation for greater decarbonization by ship owners, Green Marine is assessing low-carbon definitions, life cycle analyses, and the performance thresholds required to meet Level 5 targets in the **greenhouse gas** emissions performance indicator. In terms of SO_x, NO_x, and particulate matter, recent regulatory limits will be reviewed and incorporated, and emissions inventory methodologies for alternative fuels will be studied and adopted.

The **ship recycling** performance indicator applicable to ship owners is under review in collaboration with Green Marine Europe to adjust criteria that will no longer exceed the compliance required by the Hong Kong Convention when it comes into force.

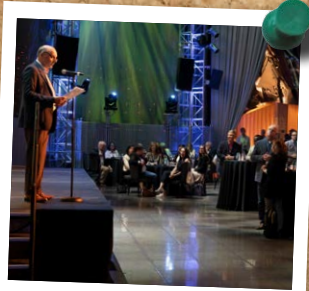




Green Marine out and about

Throughout the year, the Green Marine team is privileged to travel and meet with members and industry stakeholders, amplifying the program's collaborative approach and further strengthening the membership's growing network.

JUNE
2023



Record-breaking attendance at the GreenTech 2023 conference, Seattle, WA



West Coast Advisory Committee meeting, Seattle, WA

JULY
2023



Glencore Terminal visit, Quebec City, QC

SEPTEMBER
2023



Canadian Ferry Association Annual Conference, Vancouver, BC



COSBC Shipping 360 Conference, Vancouver, BC

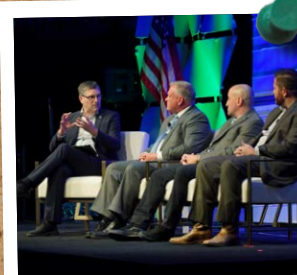


Ports Canada 2023, Trois-Rivières, QC

OCTOBER
2023



Green Marine Europe Reveal event and Pilotage Committee meeting, Bilbao, Spain



AAPA Annual Convention, Denver, CO

NOVEMBER
2023



Interferry Conference, Hobart, Australia



International Workboat Show,
New Orleans, LA



Pacific Marine Expo, Seattle, WA

DECEMBER
2023



AAPA Latin America, Barranquilla,
Colombia



St. Lawrence Advisory Committee,
Quebec City, QC

JANUARY
2024

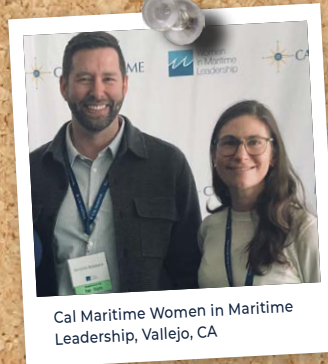


Green Marine Team Strategic
Planning meeting, Quebec City, QC

MARCH
2024



Technopole maritime du Québec
Underwater Noise workshop, Lévis, QC



Cal Maritime Women in Maritime
Leadership, Vallejo, CA

MAY
2024



AIVP Conference on the
Sustainable Development of Port
Cities, Quebec City, QC



SODES' Quebec maritime
conference, Quebec City, QC



Mari-Tech Conference, St. John's, NL



A collaborative approach

PROGRAM DEVELOPMENT & REVISION

The criteria are developed based on the collaborative approach at the heart of Green Marine.

WORKING GROUPS

Ad-hoc to review specific issues or develop program indicators; involve subject matter experts and the overall membership.



TECHNICAL COMMITTEES

Participants review and recommend annual updates to performance indicators.



ADVISORY COMMITTEES

Direct program revision and development priorities. Include all four member categories: participant, supporter, partner, and association. A verifier seat is also provided.



BOARD OF DIRECTORS



35+ meetings (MAY 2023 – MAY 2024)



Board of Directors (4)



Information Session for Partners (1)



Advisory Committees (8)



Working Groups (13)



Technical Committees (2)



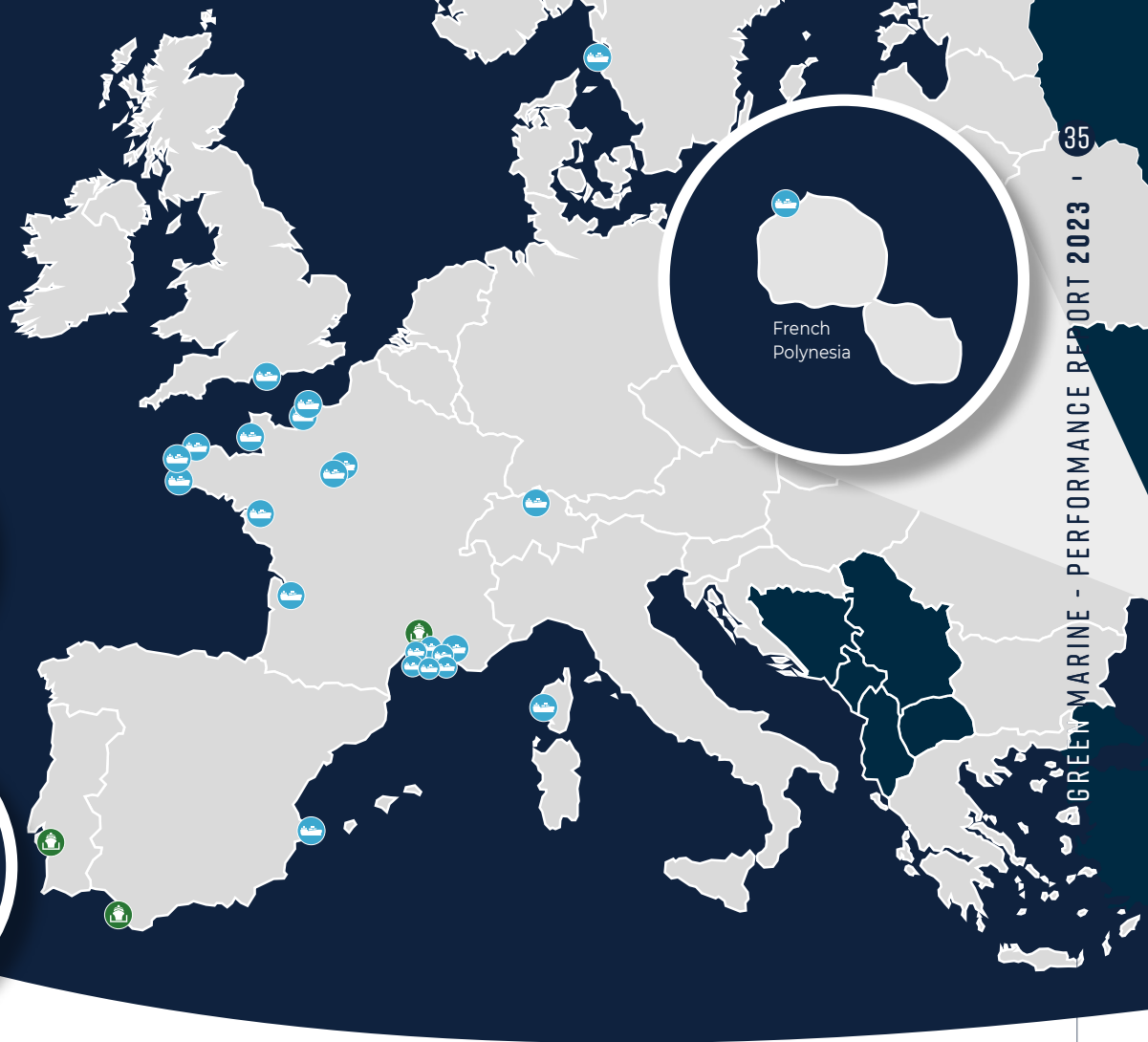
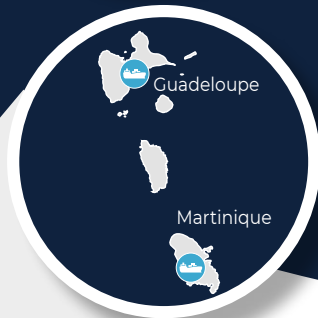
Ferry Forum (3)



Information Sessions for Participants (4)



Verifiers' Debrief and Training (2)



Strong European growth

Green Marine Europe's growth has also been constant. Launched in 2020, it now has **26 ship owners representing more than 500 vessels** from France, Portugal, Spain, Sweden, Switzerland, and the United Kingdom participating in the program. Along with giving the membership an expanded geographical presence, these ship owners represent an increased diversity of maritime activities.

For 2023 reporting, the **Green Marine Europe program was expanded to include shipyards**. Three shipyards are among the early adopters of the certification and are assessing their performance for the first time. All Green Marine Europe participants and verifiers now have access to the Smart Guide tool to complete their certification process.

Green Marine Europe had to expand its pool of verifiers to have enough for the increasing number of participants. A call for candidates was published in early January 2024. Four verifiers, two in France and two in Spain, met the prerequisites and did their initial training earlier this year, bringing the number of Green Marine Europe verifiers to seven. The Green Marine Europe pool expansion process

followed the standardized training and accreditation process established by Green Marine. Green Marine Europe participants will receive their 2023 certification in October 2024 at Green Marine Europe's Reveal event in Brussels, Belgium.

The broader membership is also increasing within Green Marine Europe, now counting eight association members and 13 supporters. Partners immediately benefit from dual Green Marine and Green Marine Europe membership.

Earlier this year, Green Marine Europe joined the Circles of Life consortium launched and led by Damen Group, a world-leading Dutch shipyards enterprise. This project aims to develop, test, and validate a general methodology for all European shipyards to fully assess their environmental performance in relation to all their applicable operations in the construction, maintenance, repair, retrofit and recycling of vessels. Green Marine Europe is providing its expertise to help create the Shipyard Environmental Performance Indicator (SEPI) and will host the consortium's general assembly in Bordeaux in June 2024.



Dynamic communications

The Communications team took Green Marine's messaging to a higher level by integrating more dynamic imaging and motion in relating various information. Its third social media campaign in September 2023 included short video clips. During each day of the three-day campaign, Green Marine focused on specific yet sufficiently broad topics:

- going beyond compliance
- decarbonization
- the program's collaborative approach and strong network

The program's association, partner and supporter members were invited to join participants in sharing these messages. The campaign generated six times the previous year's new followers with a third of the ad budget, considerably increasing Green Marine's LinkedIn base.



3RD SOCIAL MEDIA CAMPAIGN PERFORMANCE:



108,000+
Impressions
(views)



400+
Engagements
(likes, comments, shares)



1,000+
Clicks
(links)

SOCIAL MEDIA IMPACT



In just one year, the number of Green Marine followers on LinkedIn grew by 2,000+, a 55% increase!

AND... ACTION!



The main new element of Green Marine's latest communication plan is the production of in-house videos to summarize and promote a few of the environmental certification program's highlights. One of the goals is to have short videos about most of the performance indicators. The initial videos cover the following topics:

- **A Green Marine overview**
- **Greenhouse gases**
- **The new aquatic ecosystems performance indicator**
- **Distinct criteria for shipyards**

Visit Green Marine's YouTube channel to see how an image is worth a thousand words!

RECOGNITION



Green Marine won two awards for its communications last year! The AAPA Annual Lighthouse Awards were given to Green Marine at the 2023 AAPA Annual Convention in Colorado. One of the awards recognized Green Marine's successful website redesign, while the other was for the seamless transition of Green Marine Magazine to a fully digital format.

NEW TEAMMATES



The Green Marine team is delighted to have Allison Ryan as a program manager since January 2024. Based in St. John's Newfoundland, she coordinates the North Atlantic Advisory Committee and supports the program's East Coast participants in Canada and the United States. She is involved in reviewing and developing the Green Marine's programs requirements and supporting the external verification process. Allison brings 15 years of industry experience, including as the HSEQ Manager for a Green Marine certified ship owner.

Green Marine is also fortunate to have Myriam Paquette filling in as the communications officer until January 2025 while Julie Turmel is on maternity leave.



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ENTREPRISE CARBONEUTRE*
CARBON NEUTRAL BUSINESS*
Alliance Verte
Green Marine



2023

*Couverture: Champs 1 & 2 et composantes du champ 3
*Coverage: Scopes 1 & 2 and Elements of Scope 3
Certificate No. 104-222

 [green-marine-alliance-verte](https://www.linkedin.com/company/green-marine-alliance-verte)

 [Green Marine / Alliance verte](https://www.youtube.com/channel/UC...)