



Advancing sustainability in the maritime industry through a voluntary certification program that drives continual improvement

Successful pilot projects expand the certification program's geographical scope

Eleanor Kirtley, PhD, Senior Program Manager

Association of Pacific Ports Annual Conference, Honolulu, January 2026

GREEN MARINE IS...



A **voluntary certification program** launched in 2007 to reduce the environmental footprint of maritime operations by:

- exceeding regulatory compliance
- promoting a culture of continual improvement



A **benchmarking tool** to measure performance



A **partnership** initiative among stakeholders



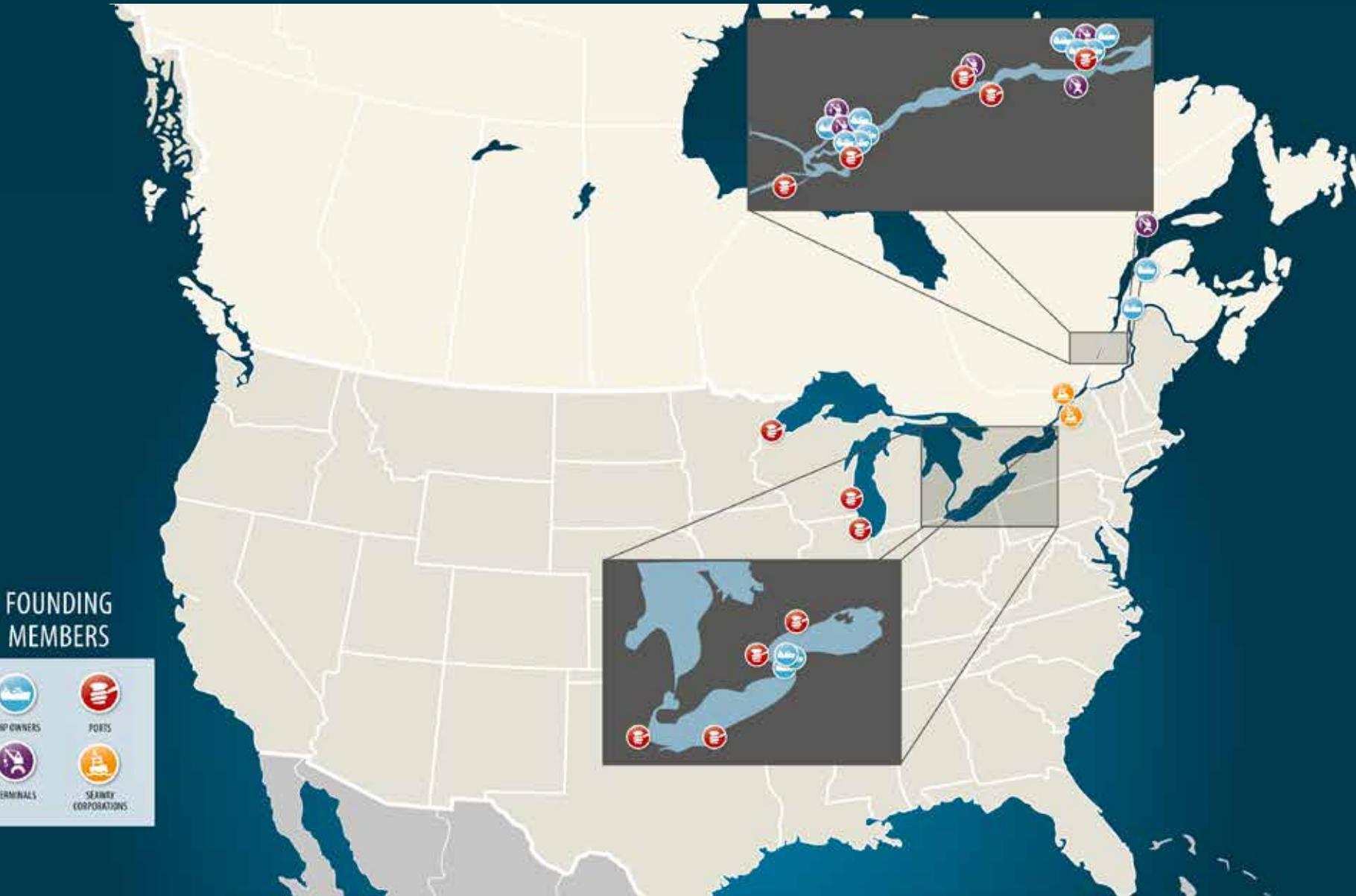
WHY GREEN MARINE?

Green Marine is the **most comprehensive** environmental program for the maritime industry that exists today.

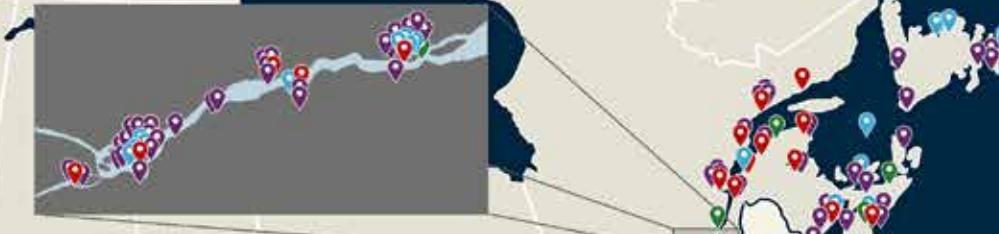
- Participants from across sectors – ship owners, port authorities, terminal operators, shipyards, and Seaway corporation
- Action plan addressing **key environmental issues** with 15 performance indicators
- Opportunity for **NGO and governmental participation**
- Certification program with **independent verification**
- Public reporting of individual organization results



GREEN MARINE FOUNDING PARTICIPANTS



Binational and
bilingual from
the beginning...



Participants

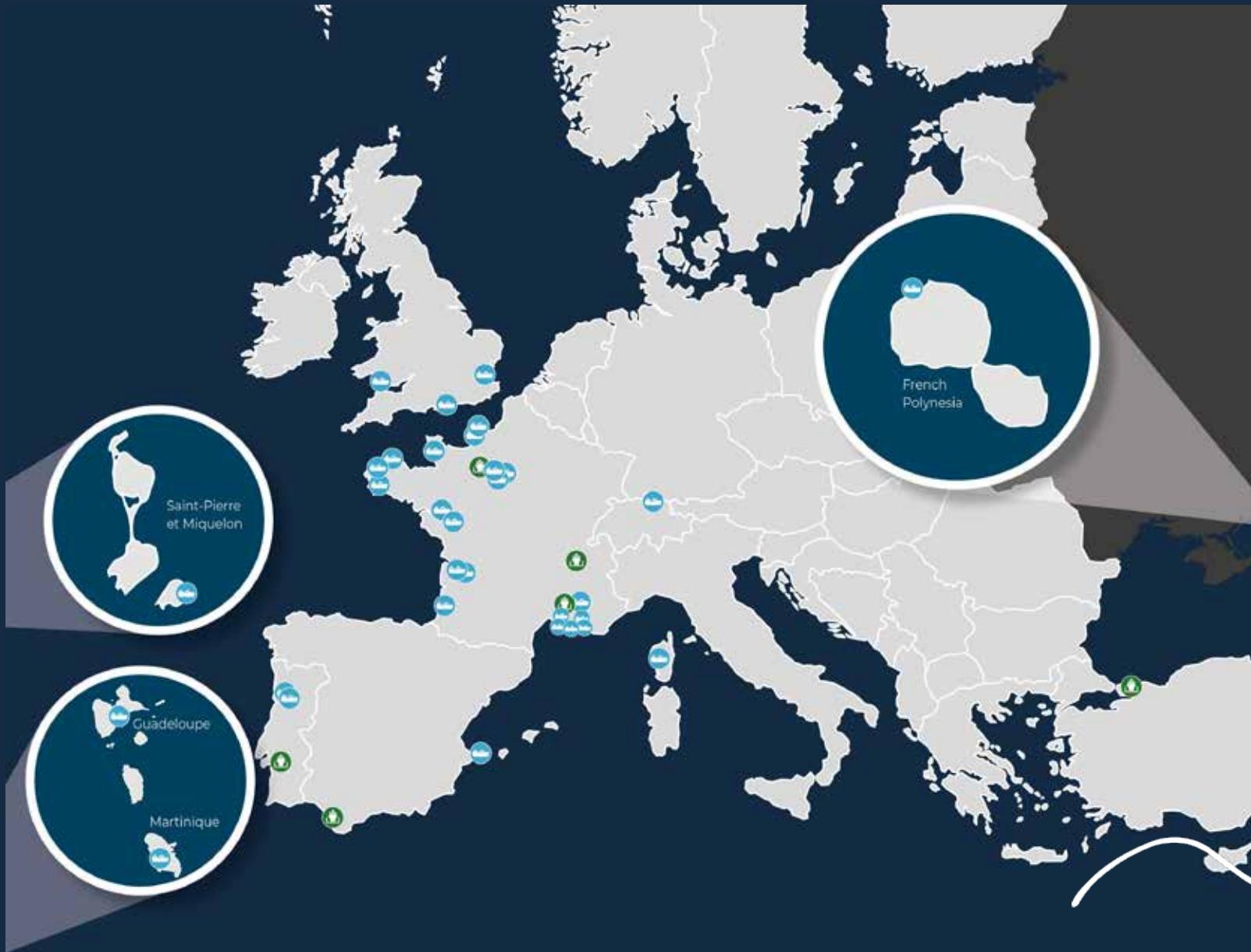
-  Ship owners | Armateurs
-  Ports | Ports
-  Terminals | Terminaux
-  Shipyards | Chantiers maritimes
-  Seaway | Voie maritime

+180
PARTICIPANTS



GREEN MARINE EUROPE

- Launched in 2020 in collaboration with Surfrider Foundation Europe
- 35+ participants (ship owners & shipyards)

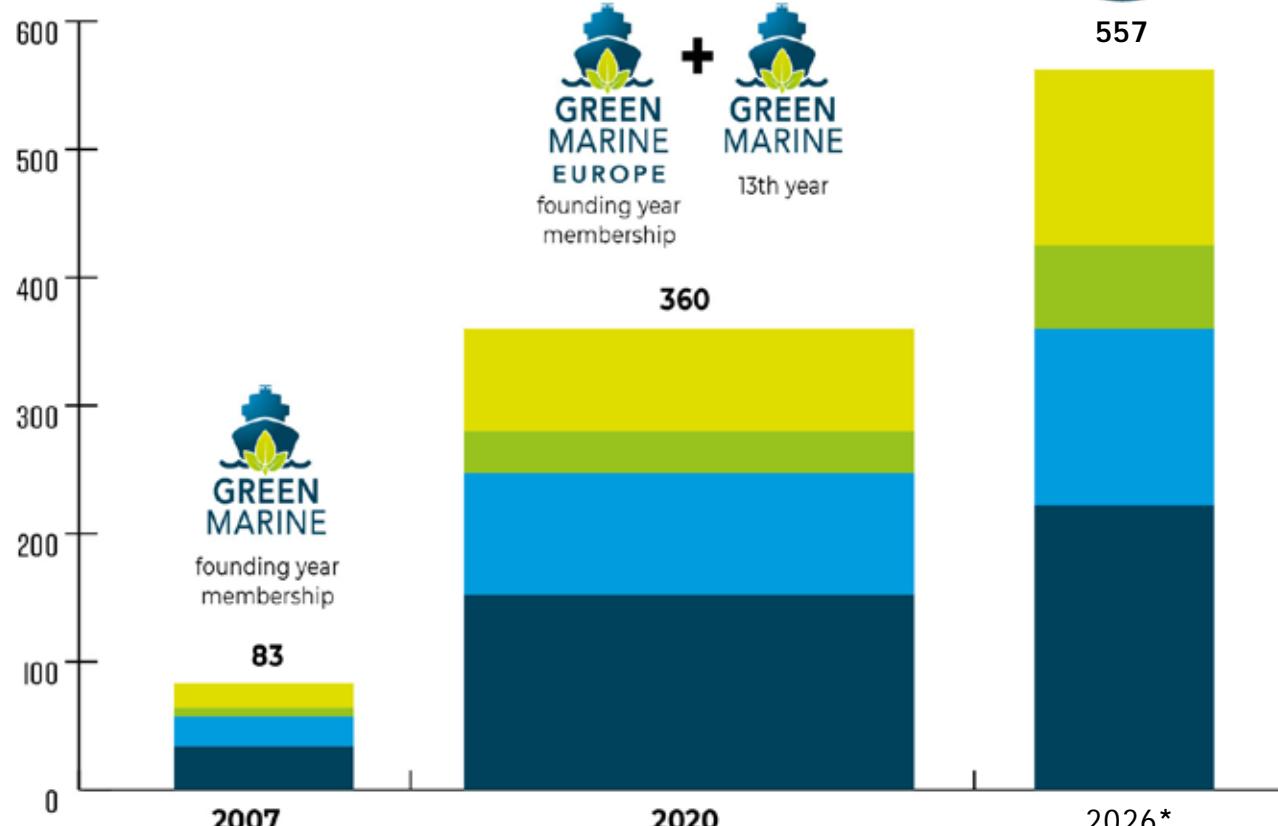


GREEN MARINE INTERNATIONAL

- New **governance structure** created in May 2024 to oversee Green Marine and Green Marine Europe environmental certification programs
- Alignment of **strategic vision** and priorities
- Enhanced brand recognition and **credibility** on the world stage
- All Green Marine and Green Marine Europe participants are now Green Marine International members



MEMBERSHIP GROWTH



217 Participants

GM 180; GME 37

Ship owners, ports, terminals,
shipyards, and the Seaway

124 Partners

Suppliers of products, equipment,
technologies and/or services

68 Associations

Industry Advocacy

148 Supporters

Environmental Groups and
Government Agencies

**Green Marine International Members List as of January 14, 2026*

PERFORMANCE INDICATORS

The program's **broad scope** addresses environmental issues related to air, water and soil quality, as well as advancing social engagement through better community relations and biodiversity protection.



AIR EMISSIONS - GREENHOUSE GASES



AIR EMISSIONS - NOX



AIR EMISSIONS - SOX & PM



AQUATIC ECOSYSTEMS



AQUATIC INVASIVE SPECIES



COMMUNITY IMPACTS



COMMUNITY RELATIONS



DRY BULK HANDLING AND STORAGE



ENVIRONMENTAL LEADERSHIP



OILY DISCHARGE



SHIP RECYCLING



SPILL PREVENTION AND STORMWATER MANAGEMENT



SURFACE TREATMENTS AND COATINGS



UNDERWATER NOISE



WASTE MANAGEMENT

Ship owners
Terminals

Ports & Seaway
Shipyards

MEASURING PERFORMANCE

Participants evaluate their progress yearly on the 1-to-5 scale of each applicable performance indicator.

1

**MONITORING
OF
REGULATIONS**

2

**BEST
PRACTICES**

3

**INTEGRATED
MANAGEMENT
AND
QUANTIFIED
IMPACTS**

4

**NEW
TECHNOLOGIES
AND
REDUCTION
TARGETS**

5

**EXCELLENCE
AND
LEADERSHIP**



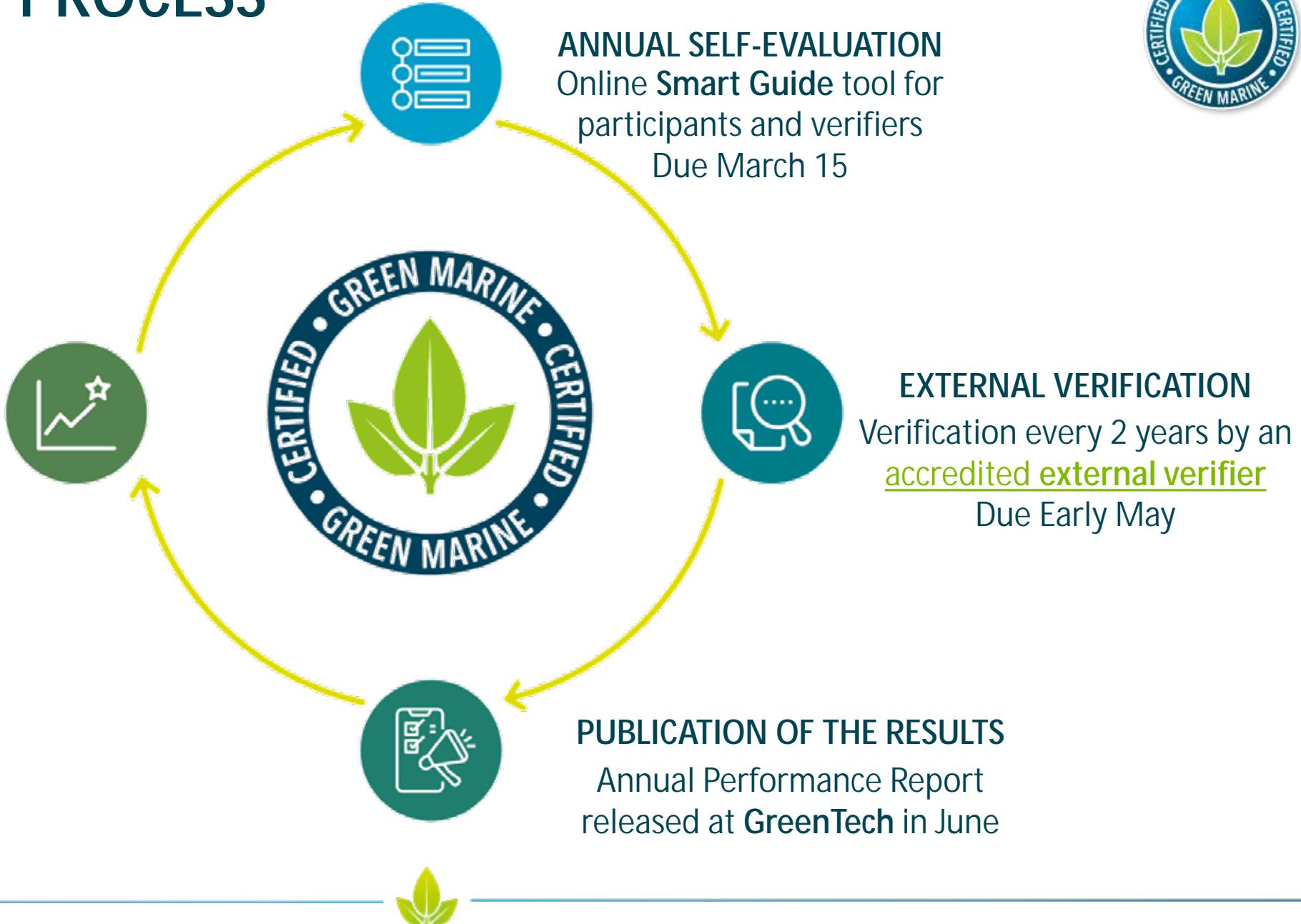
CERTIFICATION PROCESS



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





2024 PILOT PROJECT PARTICIPANTS

- New South Wales Port Authority
- Port of Brisbane
- Manly Fast Ferry (Sydney)
- Grand Bahama Shipyard
- SSA Mexico – Manzanillo Terminal



Read more about the trials in [Green Marine Magazine](#)





WHY EMBARK ON A GREEN MARINE PILOT PROJECT?



The purpose of the **pilot project** is to gage how well the certification program is **scalable, applicable, and adaptable** in a new region and regulatory framework.

- Assess market readiness and regulatory applicability
- Cultural alignment
- A free trial!



PILOT PROJECT PROCESS



- Conduct a self-evaluation, assessing performance against applicable performance indicators (PIs)
- Review criteria throughout Levels 1 to 5 in all applicable PIs for whether they are voluntary, partly covered by a regulation, or fully already required for their operations
- No verification, no publication of results, no certification
- If the findings show the program criteria are **sufficiently applicable** and **exceed the regulatory requirements**, following steps could be membership and certification.



SMART GUIDE – ANNUAL SELF-EVALUATION



Green Marine - Smart Guide

MyselfEvaluation / USA / Ports - 2024

Self-evaluation Ports 2024 - Port

1. AIR EMISSIONS - GREENHOUSE GASES AND AIR POLLUTANTS

Objective	Applicability
Reduce greenhouse gas (GHG) and air pollutant emissions.	

Level 2

Criterion	Answer	Justification
1.2.1 Implement measures that discourage idling of vehicles and other equipment powered by Internal Combustion Engines. Include, at minimum, the participant's own road, off-road, and unlicensed vehicles.	Yes No	Normal <input checked="" type="checkbox"/> B <input type="checkbox"/> I <input type="checkbox"/> U <input type="checkbox"/> P <input type="checkbox"/> E <input type="checkbox"/> T <input type="checkbox"/> %
1.2.2 Promote sustainable transportation practices by employees (e.g., incentives for public transport and carpooling, reorganization of business travel, installation of bicycle racks and electric vehicle charging stations).	Yes No	Normal <input checked="" type="checkbox"/> B <input type="checkbox"/> I <input type="checkbox"/> U <input type="checkbox"/> P <input type="checkbox"/> E <input type="checkbox"/> T <input type="checkbox"/> %
1.2.3 Implement measures to reduce truck congestion.	Yes No N.A.	Normal <input checked="" type="checkbox"/> B <input type="checkbox"/> I <input type="checkbox"/> U <input type="checkbox"/> P <input type="checkbox"/> E <input type="checkbox"/> T <input type="checkbox"/> %
1.2.4 Implement policies and communications that inform or, when necessary, issue warnings to ships that emit excessive amounts of smoke.	Yes No N.A.	Normal <input checked="" type="checkbox"/> B <input type="checkbox"/> I <input type="checkbox"/> U <input type="checkbox"/> P <input type="checkbox"/> E <input type="checkbox"/> T <input type="checkbox"/> %

Progress
1. AIR EMISSIONS - GREENHOUSE GASES AND AIR POLLUTANTS
2. AQUATIC ECOSYSTEMS
3. COMMUNITY IMPACTS
4. COMMUNITY RELATIONS
5. DRY BULK HANDLING AND STORAGE
6. ENVIRONMENTAL LEADERSHIP
7. SPILL PREVENTION AND STORMWATER MANAGEMENT
8. UNDERWATER NOISE
9. WASTE MANAGEMENT

Go to report

- Checkbox questionnaire
- Justifications & documents upload
- Autofill feature for subsequent years
- Verifiers module
- Online submission



FINDINGS AND OUTCOMES

Upon determining that the Green Marine performance criteria sufficiently exceeded the regulatory requirements, these successful pilot projects led to:

- February 2025) Accreditation of a Green Marine verifier in Australia
- May 2025) Expanded eligibility to new countries: Australia, Bahamas, and Mexico
- June 2025) Certified new participants
- December 2025) Hired a consultant in Australia, supporting the Asia-Pacific Islands with outreach and recruiting
- January 2026) SSA Marine Mexico added 2 terminals to the program (Veracruz & Lazaro Cardenas)
- Minor program adaptation (ex. broaden criterion applicability outside of Canadian and U.S. waters)





2026 PILOT PROJECTS LAUNCH

- 4 confirmed pilot projects so far in South America – Argentina, Brazil, Ecuador, and Peru, others under discussion and to be confirmed in Europe and Africa
- More flexible, rolling enrollment and project timeline for prospective participants
- Inviting interest! Please get in touch!



el Consortium del Puerto de Bahía Blanca in Argentina



GREENTECH 2026 – June 9-11, Quebec City

Green Marine's 19th annual conference and certification reception



Emerging
Issues of
Interest



Innovative
Solutions



Renowned
speakers



Networking &
Discussions



green-marine.org/greentech/

STAY IN TOUCH



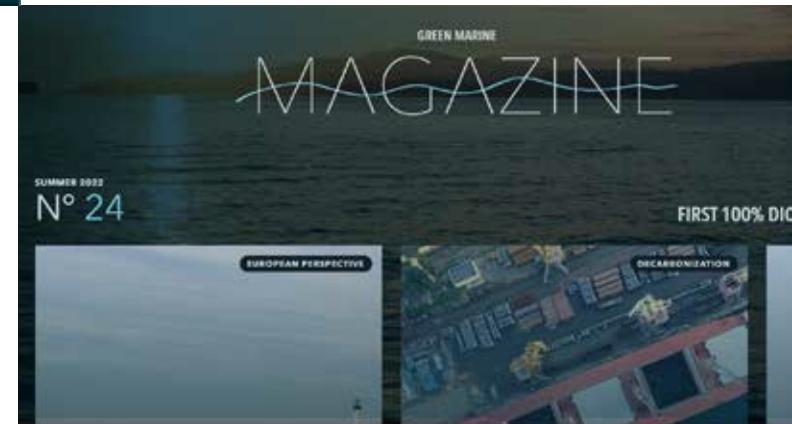
info@green-marine.org



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



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COMMUNICATION MANAGER, EUROPE
PASQUINE ALBERTINI
• Aix-en-Provence, France



green-marine.org



Eleanor Kirtley
Senior Program Manager
eleanor.kirtley@green-marine.org



EXTRAS

PROGRAM DEVELOPMENT & REVISION

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

WORKGROUPS

Ad-hoc to review specific issues or develop program indicators; include **subject matter experts** among all members

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. Also include a verifier seat.



BOARD OF DIRECTORS

2024-2025 BOARD OF DIRECTORS



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Marinette Marine



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Director – Maritime, Port of Seattle

A COLLABORATIVE APPROACH

Maritime industry

(Ship owners, ports, terminals, shipyards and Seaway corporations; Maritime associations)



Research community

(Academic/scientific institutes and sector experts)



Governments

(Relevant agencies, departments and offices)



Environmental organizations

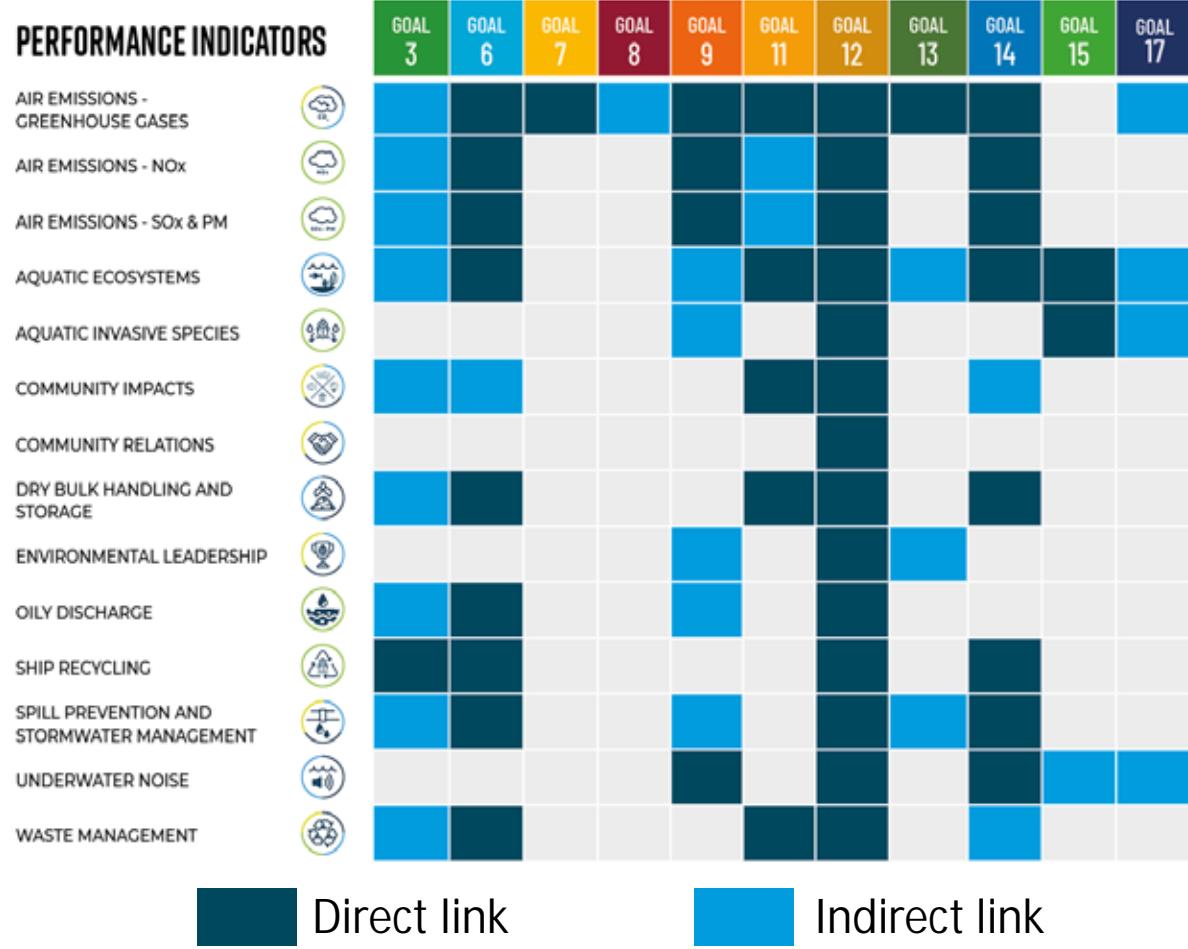
(e.g., Green Marine supporters)



U.N. SUSTAINABLE DEVELOPMENT GOALS



- Study by Clear Seas in collaboration with ACPA & Green Marine
- The Green Marine program addresses 25 targets of 11 of the 17 SDGs
- Green Marine's newest performance indicator, **Aquatic Ecosystems**, has the greatest correlation with SDGs



👉 Read more in the [Green Marine Magazine](#)





FURTHER GLOBAL REACH

Green Marine held 5 successful pilot projects in the summer of 2024, bolstering the program's strength in North America and Europe, and raising the global bar for maritime transportation's environmental sustainability.

The newest Green Marine participants are located in:

- Bahamas
- Australia
- Mexico



Read more about the trials in [Green Marine Magazine](#)





2024 Performance Report

green-marine.org

ANNUAL PERFORMANCE REPORT



Green Marine's Annual Performance Report presents the latest results achieved by participants, along with an in-depth analysis of year-over-year improvements in their environmental sustainability.

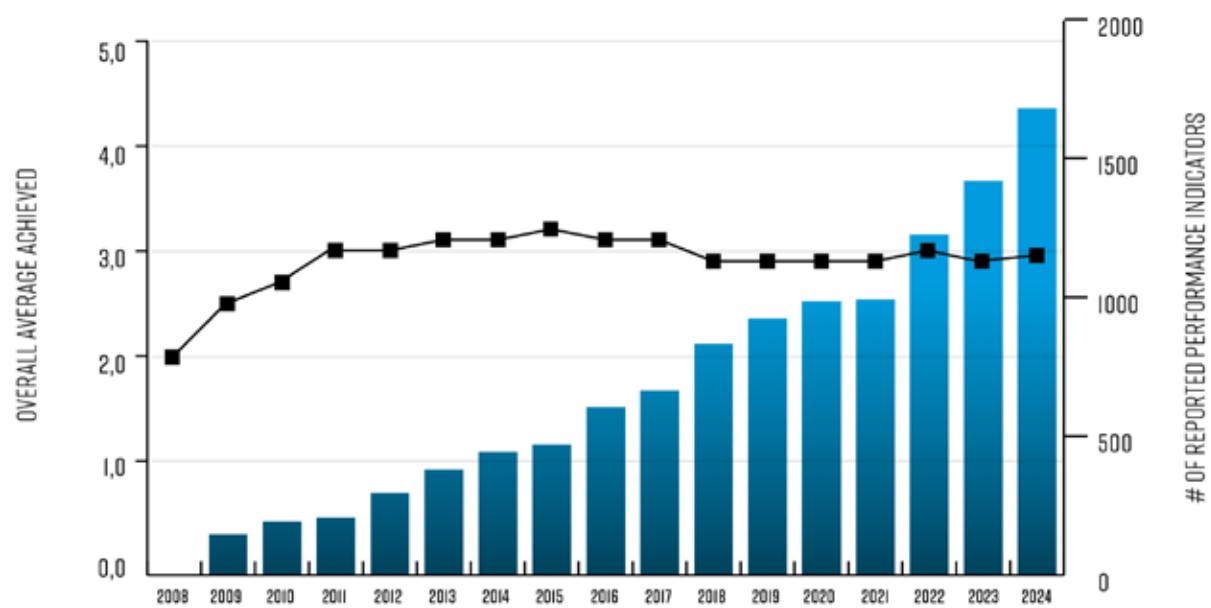
[Read the 2024 performance report](#)

[View the past performance reports](#)

2024 RESULTS



PARTICIPATION / PERFORMANCE



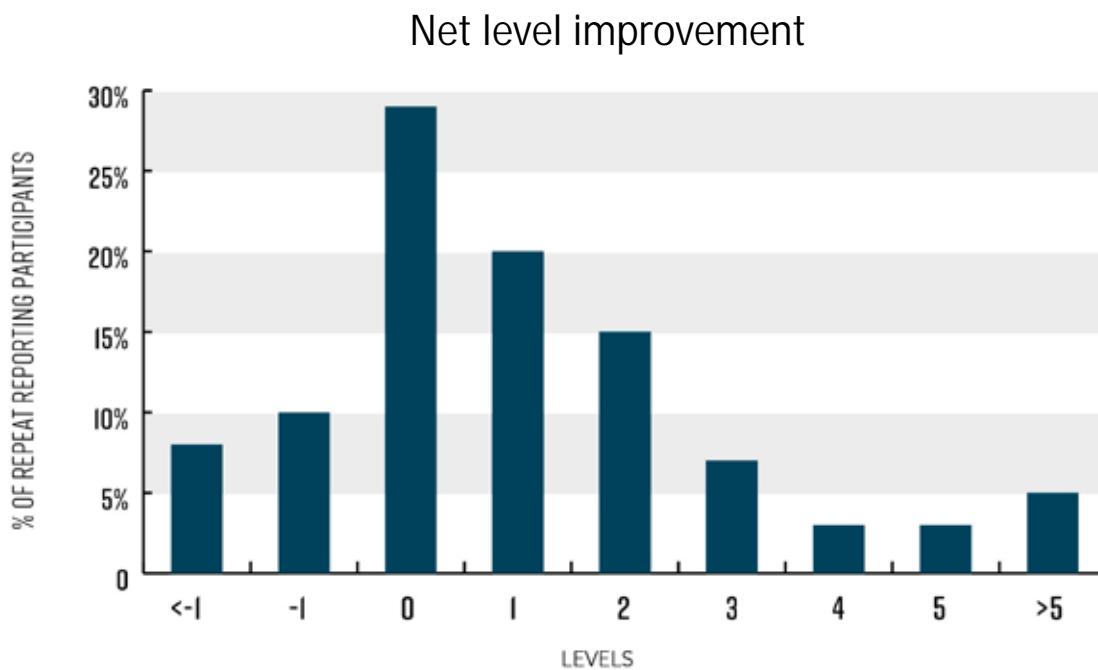
- 243 reports submitted
- Cohort of 2024 = 10% annual average growth
- Overall average = 2.9
- 1683 Reported Performance Indicators (>18% from 2023)



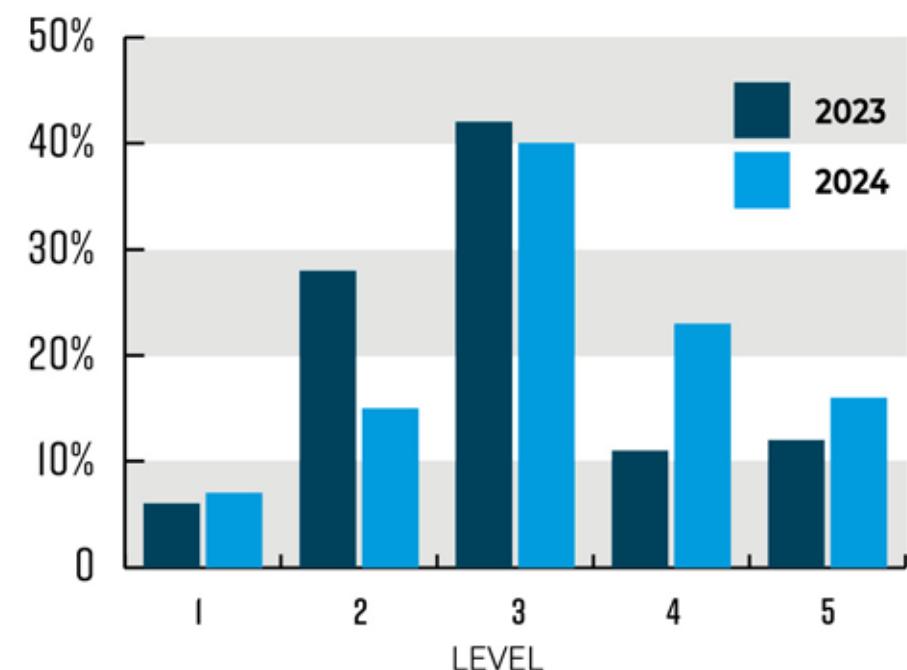
2024 RESULTS



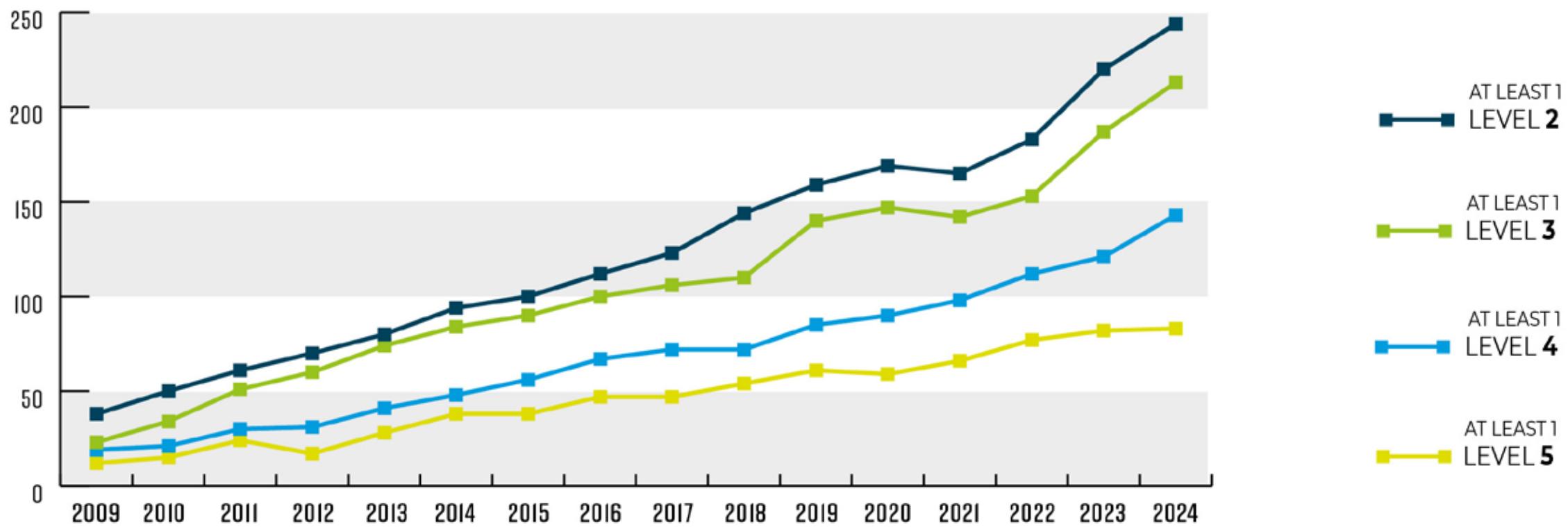
≥ 1 level up on average for every participant compared to the 2023 results



Ports' & Terminals' GHG & Air Pollutants improvement from 2023 to 2024



2024 RESULTS – CONTINUAL IMPROVEMENT



2024 RESULTS HIGHLIGHTS



Terminals represent the biggest membership absolute and percentage growth, with **22 newly certified terminal locations** in 2024.



One-third of the ports have achieved the highest Level 5 for **Community Relations** after only three years of reporting on this indicator.



Terminals show the highest % of participants (83%) at or above Level 3 for the **Greenhouse Gases and Air Pollutants** indicator.



The overall average by ports for the first reporting year on **Aquatic Ecosystems** was 2.7 - the highest initial average for a new performance indicator, with 59% achieving Level 3 or higher.



Ship owners achieve the highest average in the two **biodiversity**-related indicators: **Aquatic Invasive Species** (3.5) and **Underwater Noise** (3.3).



In terms of **decarbonization**, Green Marine considerably raised the bar, and participants met it! 70% of all participants conducted a **GHG inventory** in 2024.



CERTIFICATION PROCESS





2007

2008

2009

2010

2011

2012

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

- **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.

- **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.

- **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.

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

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

2014

2015

2016

2017

2019

2020

- **NOVEMBER**
Green Marine hires a West Coast program manager, and opens an office in Seattle, WA - the first in the United States.

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

- **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.

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

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

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

2021

2022

2023

2024

2025

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

- **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!

- **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.

- **JANUARY**
Expanded pool of accredited verifiers. Improved and revised Smart Guide launched.
- **MAY**
Green Marine International is incorporated and holds its first annual general meeting.
- **AUGUST**
Green Marine Europe becomes a legal entity by filing its statutes in compliance with France's Law of Associations.

- **SEPTEMBER**
Green Marine hires a finance and administration manager.
- **NOVEMBER**
Three European industry representatives join Green Marine Europe's board of directors.

- **JANUARY**
New indicator: Surface Treatments & Coatings (shipyards).
- **SPRING**
Official hiring of the new Green Marine Europe staff.
- **MAY**
Successful completion of the international pilot project involving Australia, Mexico, and the Bahamas.

GREEN MARINE INTERNATIONAL



- New **governance structure** to oversee Green Marine and Green Marine Europe environmental certification programs
- Same commitment, rigour and transparency
- Alignment of **strategic vision** and priorities
- Coordination of program development
- More **diversified and stronger team** capabilities; pooling of resources
- Enhanced brand recognition and **credibility** on the world stage
- All Green Marine and Green Marine Europe participants are now Green Marine International members



SOCIAL MEDIA



WEBSITE AND NEWSLETTER



31 AUGUST 2022

THE NEW FAIRVIEW-RIDLEY CONNECTOR CORRIDOR OPENS IN PRINCE RUPERT

The Prince Rupert Port Authority (PRPA) has completed its Fairview-Ridley Connector Corridor project. The road is now fully operational for container trucks to travel to and

INDUSTRY SUCCESS STORIES

LEARN MORE →



3 APRIL 2024

Port of Albany undertakes a zero-emission fleet assessment

The Albany Port District Commission (APDC) is evaluating a transition to zero-emission fleet equipment as part of the EPA Ports Initiative. The port's CEO, Richard Hendrick...

INDUSTRY SUCCESS STORIES

LEARN MORE →

Green Marine offers visibility & recognition to the participants' environmental engagement through its website, newsletter, and social media.



DIGITAL MAGAZINE





#BRAGABOUTIT

Green Marine participants are proud of their achievements and proudly showcase the certified logo!

SOCIAL MEDIA



PROMO ITEMS



AD PLACEMENT



WEBSITE



BENEFITS FOR PARTICIPANTS

Green Marine offers an **action plan** to assess and improve your environmental performance .



RELEVANCE

Program criteria specific to ship owners, port authorities, terminal operators, and shipyards; that address their **priority environmental issues**.



MEASUREMENT AND VERIFICATION

Annual, peer-to-peer benchmarking based on a common standard and concrete actions; External verification bolsters the program's **rigour and credibility**



RECOGNITION AND VISIBILITY

Maintaining **social acceptability** and enhancing reputational capital; A suite of **communication tools** to amplify engagement with stakeholders.



COMMUNITY PARTICIPATION

The program is developed in **partnership with an extensive network** of environmental groups, government agencies and academic experts.



TRANSPARENCY

All program criteria, certification requirements, and **participants' results published**, which contributes to a high level of trust.



ADDED VALUE

A **cost-effective way** to initiate a sustainable development process validated by a third party; Backed by 15+ years of experience and growth.



PARTICIPANTS FROM ACROSS SECTORS



Ship Owners



Terminals



Ports



Shipyards

VALUE PROPOSITION



ROADMAP AND ACTION PLAN

Annual benchmarking based on a common standard and concrete actions;
External verification bolsters the program's **rigour and credibility**



RECOGNITION AND VISIBILITY

Maintaining **social acceptability** and enhancing reputational capital;
A suite of **communication tools** to amplify engagement with stakeholders.



UNIQUE NETWORK

The program is developed based on a collaborative approach, in **partnership with an extensive network** of environmental groups, government agencies and academic experts.



ADDED VALUE

A **cost-effective way** to initiate a sustainable development process validated by a third party;
Can allow access to **financial incentives**.



CHOOSING TRANSPARENCY

Published annually in Green Marine's Annual Performance Report and on its website, the participants' results are subject to a highly positive interpretation. They show commitment to:



SURPASSING REGULATION

Level 1 means compliance with all applicable laws and awareness of relevant environmental regulations. Any results above 1 reflect performance beyond regulatory compliance, from best practices to excellence.



CONTINUAL IMPROVEMENT

Regardless of the levels achieved for each performance indicator, Green Marine certification demonstrates a participant's commitment to continually improving environmental performance.



BUILDING TRUST

The publication of all individual results and of the program's criteria ensure transparency and credibility, helping participants maintain a trustworthy relationship with their stakeholders and surrounding communities.



AMBITIOUS GOALS

Green Marine's environmental certification program evolves according to new challenges and regulations to always present ambitious, achievable objectives with a real impact.



GREENTECH

GreenTech is the not-to-be-missed event of the year for anyone interested in the maritime industry, green technologies, and innovation in sustainable maritime transportation.



Emerging
issues of
interest



Renowned
speakers



Networking &
discussions



Innovative
solutions



90+ SUPPORTERS

Environmental groups, scientific institutions, and government agencies that support and encourage the sustainability initiative being voluntarily undertaken by the maritime industry.



Transport
Canada

Transports

Canada



WATERFRONT
ALLIANCE



FERRY FORUM

Informal discussion forum on environmental matters:



Initiated in April 2022, Quarterly meetings



Co-chaired by Kevin Bartoy, Washington State Ferries, and Vincent Coquen, Brittany Ferries; facilitated by Green Marine



Open to all ferry-operating participants of Green Marine and Green Marine Europe (21)



Agenda set by the Ferry Forum members on different topics of interest



WHY BECOME A SUPPORTER?



Green Marine offers a **diversified and dynamic network** to open dialogue and encourage partnership



A COLLABORATIVE APPROACH

Participate directly in the development of the program (on environmental issues, specific requirements and other prioritized matters and/or emerging issues).



VISIBILITY

Benefit from the visibility on Green Marine's website, social media, and newsletter distributed to more than 4,500 subscribers. Display Green Marine's Supporter logo.



COMMUNITY PARTICIPATION

Encourage companies to improve beyond regulatory requirements by having the opportunity to relate environmental issues possibly arising from maritime operations, as well as potential solutions.

There are no cost to becoming a Green Marine supporter; you need to confirm your support for the program in a support letter: see the [membership form](#)





GHG & AIR POLLUTANTS PERFORMANCE INDICATOR FOR PORTS



2

Reduce engine idling and truck congestion
Promote sustainable commuting practices for employees

3

Annual **report** on total GHG AND either port-wide equipment inventory or emission reduction program with tenants/users

4

5-year port-wide **inventory** of GHG & Air Pollutants
Adopt an emissions reduction **plan** and targets on own, direct emissions

5

$\geq 2.4\%$ annual average over 3+ years for direct GHG emissions
 $\geq 1\%$ annual average over 3+ years for port-wide GHG emissions
Adopt a port-wide emissions reduction **plan**





COMMUNITY RELATIONS PERFORMANCE INDICATOR FOR PORTS



2

3

4

5

Provide **contact information** for concerns, implement a response procedure, maintain a network of local stakeholders, **monitor media**, communicate through multiple channels, and ensure **senior management's commitment** to good community relations.

Knowledge of the port's stakeholders and their concerns, develop a **communication strategy**, publicly disclose an annual **social responsibility report**, implement community **outreach strategies**, and participate in social or environmental community activities annually.

Actively engage with local communities through various means, such as a port community committee and external community meetings. **Encourage community feedback and participation** and incorporate community relations in strategic planning.

Evaluate the **community's perception** and develop and implement measures addressing the concerns raised. Carry out a **co-creation project** or develop an initiative in collaboration with local stakeholders.

