



VOLUNTARY ENVIRONMENTAL CERTIFICATION PROGRAM FOR THE MARITIME INDUSTRY

Overview for the Great Lakes St. Lawrence Governors & Premiers

David Bolduc, Executive Director
December 3rd, 2019

green-marine.org

GREEN MARINE IS...



A **voluntary certification program** to improve environmental performance of marine operations

- without additional regulation
- with transparency and accountability
- by promoting a culture of continual improvement

A **benchmarking tool** to measure performance

A **partnership** among stakeholders

STRATEGIC BENEFITS



For the marine industry

For individual companies

PUBLIC TRUST

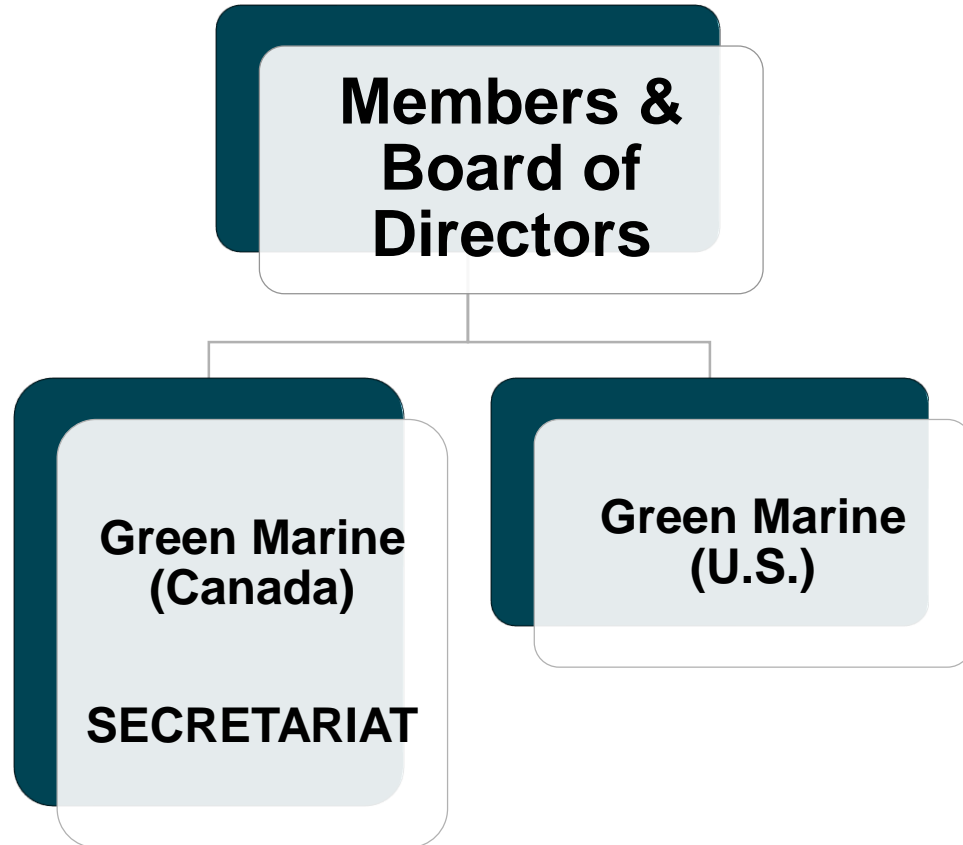
CERTIFICATION



Tool to improve long-term relations with stakeholders

Tool to demonstrate environmental performance

STRUCTURE



Legal Entity

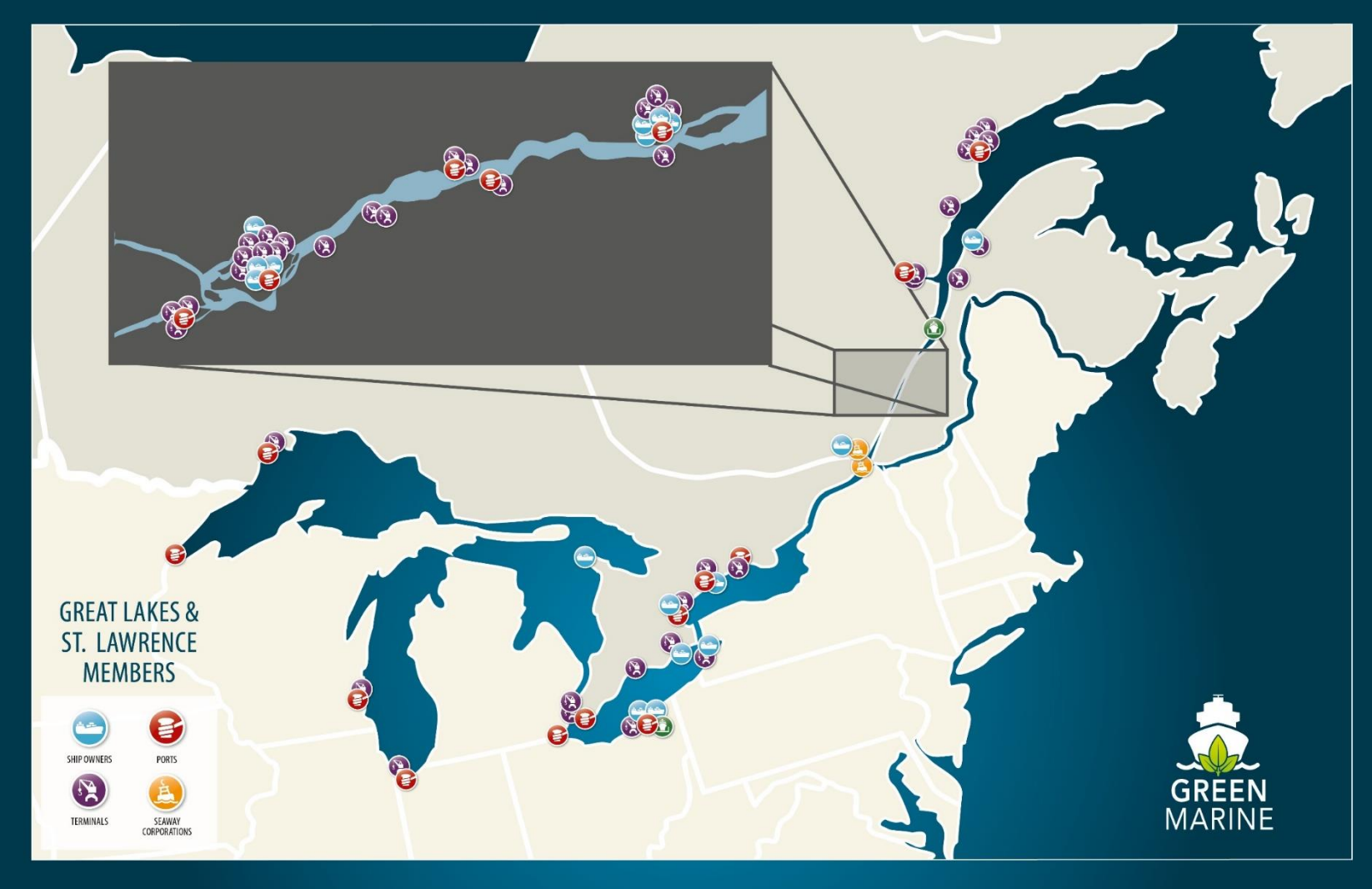
Green Marine Management Corporation

Incorporated in the U.S. and Canada

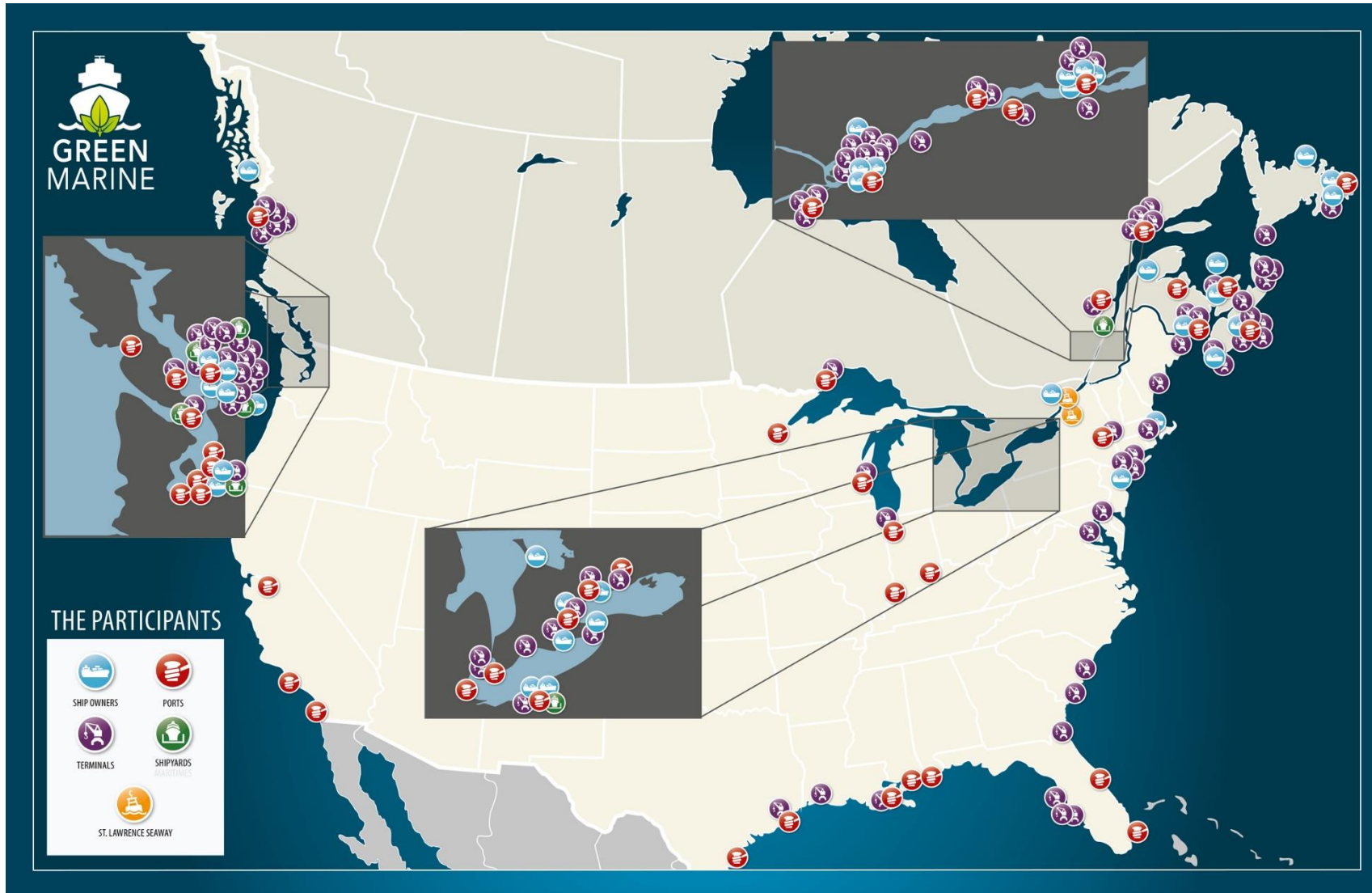
Green Marine Secretariat

- Non-for-profit organization
- 6 full-time staff based in Quebec City, Halifax, and Seattle, WA

GREAT LAKES – ST. LAWRENCE PARTICIPANTS



140 PARTICIPANTS IN U.S. AND CANADA



48 PORTS, 55 TERMINALS, 37 SHIP OWNERS



PROGRAM CRITERIA



Ship owners



Ports & Seaway



Terminals & Shipyards



Air Emissions
NOx



Air Emissions
SOx and PM



Aquatic Invasive
Species



Cargo
Residues



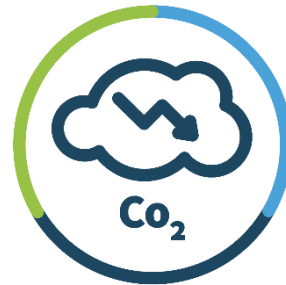
Community
Impact



Dry bulk
handling & storage



Environmental
Leadership



GHG



Oily Water



Spill
Prevention



Underwater
Noise



Waste
Management

BENCHMARKING PERFORMANCE



For each environmental issue, performance is evaluated from Level 1 to Level 5:



THE GHG PERFORMANCE INDICATOR



Monitoring of regulations



Document fuel consumption; Optimize voyage routes; Optimize stability and loading of ships; Respect voluntary speed reduction measures; Preventive engine maintenance; Identify optimal engine speed



Complete an annual inventory on GHG emissions; Energy performance plan



Annual reduction of 1% of GHG emissions per ton-kilometer



Annual reduction of 2% of GHG emissions per ton-kilometer

CERTIFICATION PROCESS



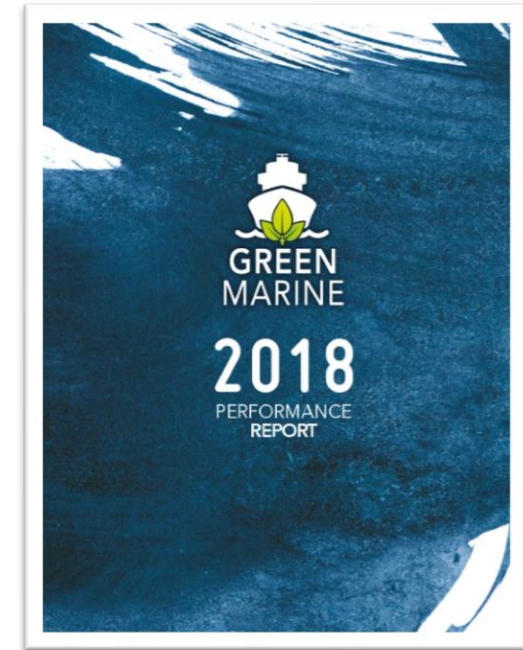
1. SELF-EVALUATION



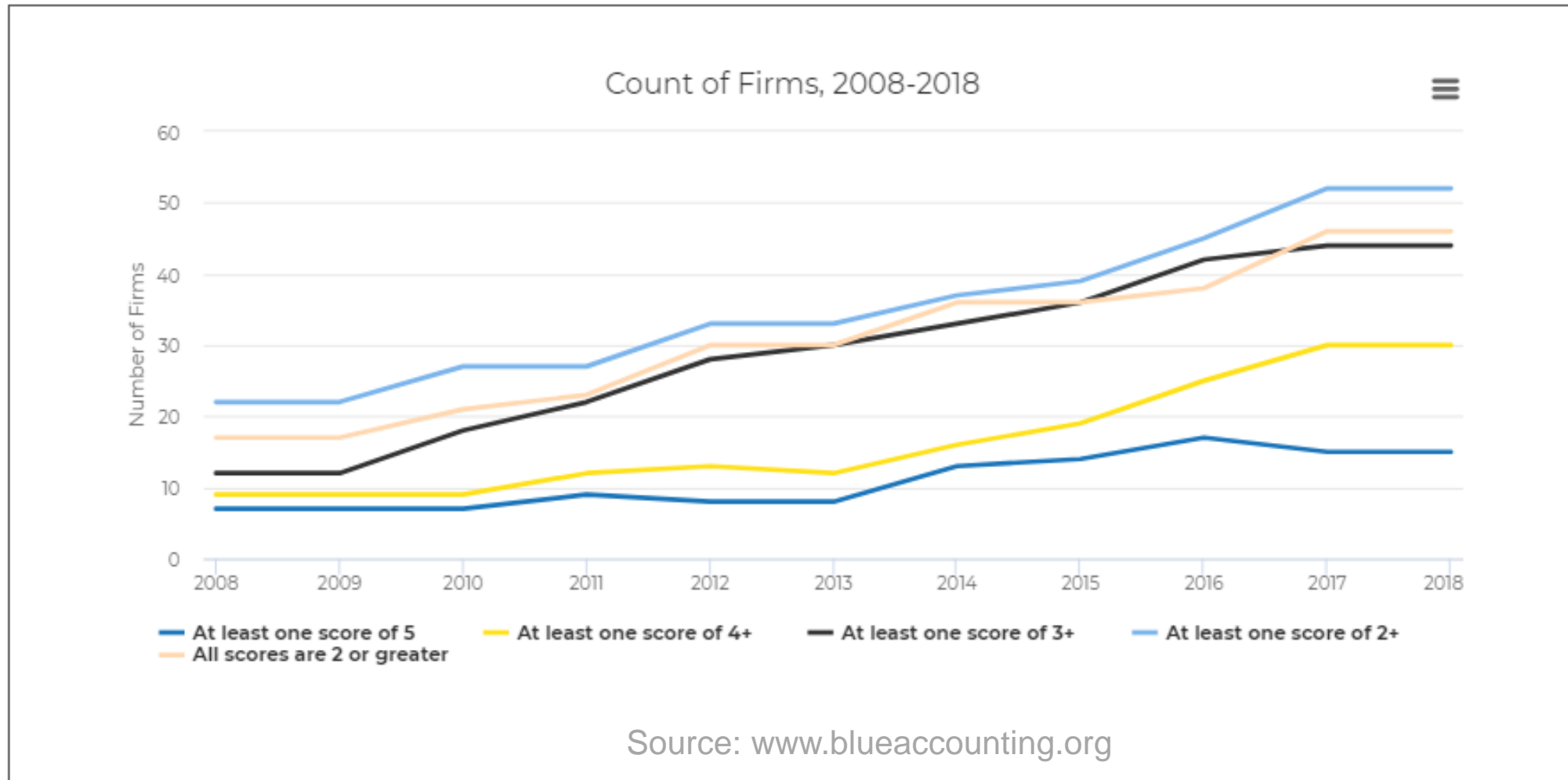
2. EXTERNAL VERIFICATION



3. PUBLICATION OF RESULTS



RESULTS (Great Lakes – St. Lawrence region)



SUPPORTERS (74)

Green Marine's relevance and credibility is reflected through these environmental groups, scientific research programs, and government agencies that have endorsed and help shape the program.



Transports
Canada



Environment
Canada



Ducks Unlimited Canada
Conserving Canada's Wetlands



**Great Lakes Maritime
Research Institute**

*A University of Wisconsin - Superior and
University of Minnesota Duluth Consortium*

GEORGIAN BAY
FOREVER



Putting Water First



Great Lakes and St. Lawrence Cities Initiative
Alliance des villes des Grands Lacs et du Saint-Laurent

A COLLABORATIVE APPROACH

Program update and development is done through a collaborative approach

ADVISORY COMMITTEES:

- Mandate: advise on program revision and development
- Include ports, terminals, ship owners, government, NGOs, academia

WORKGROUPS:

- Ad-hoc for particular issue and includes subject matter experts



ANNUAL CONFERENCE



GREEN TECH2020

ENVIRONMENTAL CONFERENCE

June 2 - 4, 2020

Montreal, QC



Topics discussed include:

- Ballast Water Treatment Systems
- Air emissions & GHGs
- Electric ferries
- Sustainability and big data
- Marine plastic
- Quiet ship design
- Zero emission cargo handling equipment



STAY IN TOUCH



Green Marine Magazine (published twice a year)

<https://www.green-marine.org/news/magazines/>



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