



Green Marine:

**A Voluntary Environmental Program
for the North American
Marine Industry**

October 2013

Green Marine is...



A **voluntary program** to reduce environmental footprint of marine operations by

- exceeding regulatory compliance
- promoting a culture of continuous improvement

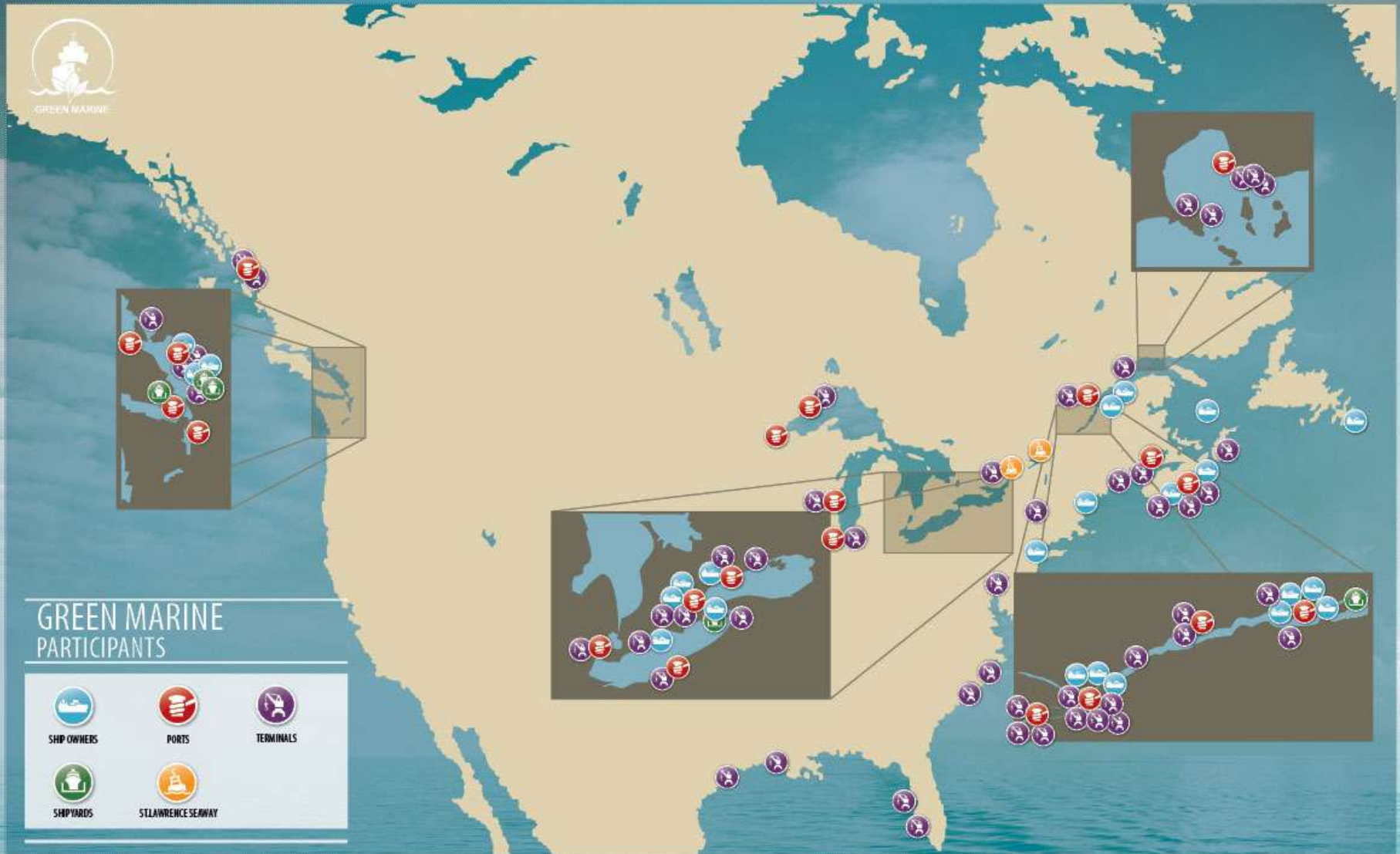
A **benchmarking** tool to measure performance

A **partnership** initiative involving stakeholders

Green Marine Participants Great Lakes & St. Lawrence region



Green Marine Participants across North America



Port Members (23)



U.S. Great Lakes

Cleveland-Cuyahoga County Port Authority

Duluth Seaway Port Authority

Illinois International Port District

Port of Milwaukee

U.S. West Coast

Port of Seattle



Central Canada (Québec-Ontario)

Hamilton Port Authority

Montreal Port Authority

Port of Valleyfield

Quebec Port Authority

Saguenay Port Authority

Sept-Îles Port Authority

Thunder Bay Port Authority

Toronto Port Authority

Trois-Rivières Port Authority

Windsor Port Authority

Canadian West Coast

Greater Victoria Harbour Authority

Nanaimo Port Authority

Port Metro Vancouver

Prince Rupert Port Authority

Atlantic Canada

Halifax Port Authority

Saint John Port Authority

Terminal Members



There are 28 terminals, stevedoring companies and shipyards participating in the Green Marine program, operating in more than 50 locations in the U.S. & Canada.



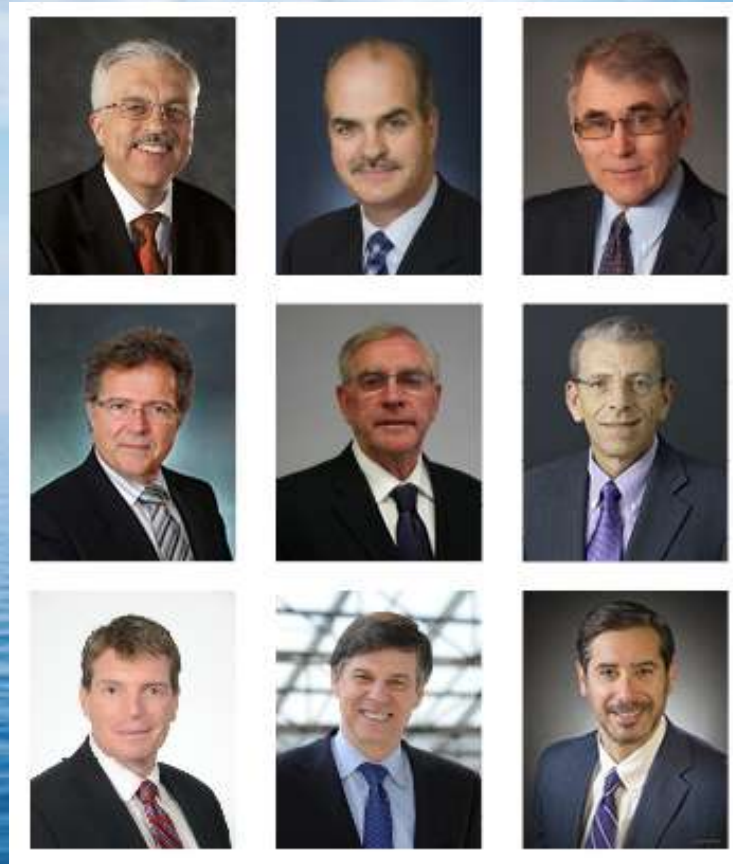
Environmental issues



or certificate
qualifications. So Didn't
credibility /kredib

thing has credibility
trust them. So He f
doubts about the

1st rule: CEO commitment



2nd rule: Open your arms



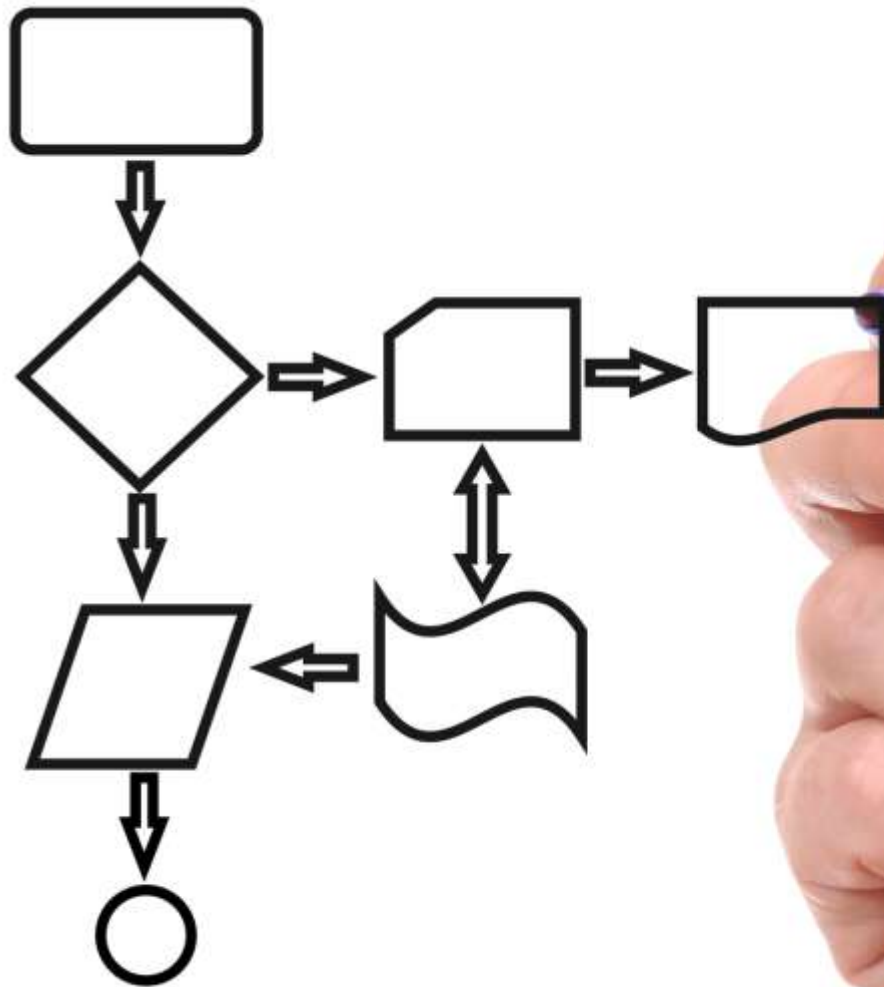
An inclusive process



ADVISORY COMMITTEES:

- 3 regional committees
- Mandate: advise on program revision and development
- Includes ports, terminals, shipowners, government, NGOs, academia

3rd rule: Clear and rigorous process



Green Marine Environmental Program



The Green Marine Environmental Program is made up of 4 basic steps:



Evaluation Process

- Concrete actions
- Annual Self-evaluation
- Reporting



External Verification

- Third party verification every two years



Results Publication

- Annual report
- Interactive map on GM website
- Individual and average results



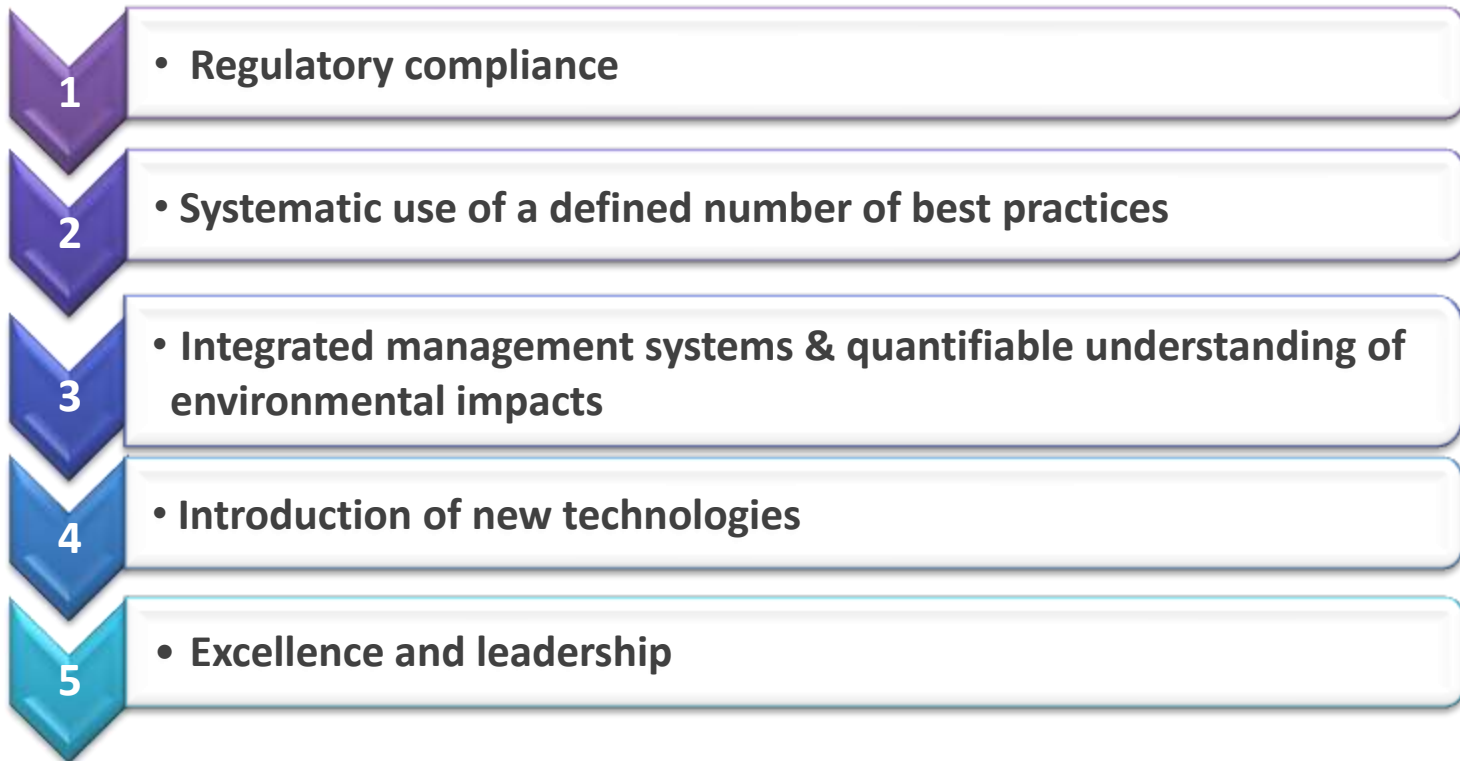
Certification

- Certification awarded after verification
- Valid until next verification

Benchmarking Performance



For each environmental issue, performance is evaluated on a scale from 1 to 5:



4th rule: Total transparency



Reporting



SHIPOWNERS

	Aquatic Invasive Species	Air Emissions (SOx)	Air Emissions (NOx)	Greenhouse Gases	Cargo Residues	Oily Water
Algoma Central Corporation	4	4	4	3	4	5
Atlantic Towing Limited	2	5	2	2	n.a.	2
Canada Steamship Lines	5	4	4	5	4	4
CanforNav Inc.	4	4	3	5	5	5
COGEMA	n.a.	5	2	2	n.a.	2
Fednav Ltd.	4	3	3	5	5	4
Groupe CTMA	2	5	2	2	n.a.	1
Groupe Desgagnés Inc.	4	5	4	5	4	4
Island Tug and Barge Ltd. *	n.a.	5	2	2	n.a.	n.a.
Lower Lakes Towing Ltd.	2	2	2	2	2	2
McAsphalt Marine Transportation Ltd.	4	2	3	3	n.a.	2
McKeil Marine Ltd.	3	5	3	2	2	2
Ocean Group Inc.	n.a.	5	3	5	n.a.	n.a.
Oceanex Inc.	3	5	3	3	n.a.	3
Provmar Fuels Inc.	n.a.	5	3	2	n.a.	n.a.
Reformar	n.a.	5	2	3	n.a.	2
Seaspan Marine Corporation	n.a.	5	2	3	n.a.	n.a.
SMIT Marine Canada Inc.	n.a.	5	2	2	n.a.	n.a.
Société des Traversiers du Québec	n.a.	5	3	3	n.a.	2
Svitzer Canada Ltd. *	n.a.	2	2	2	n.a.	n.a.
TBS International / Roymar Ship Management Inc.	3	2	2	2	2	3

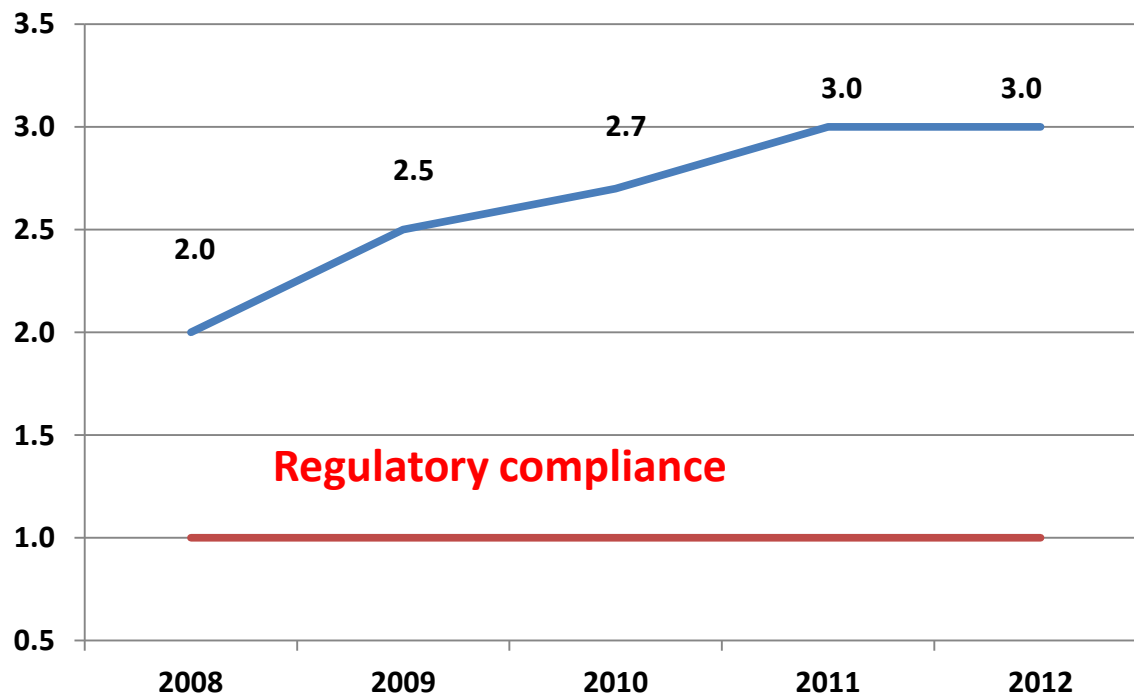


Results

Steady improvement in performance



Average results (on a scale from 1-5)



- Increase in membership
- More stringent program requirements

Supporters



Transport
Canada

Transports
Canada



World Wildlife Fund Canada



Recognition



WINNER
GREEN SHIPPING INITIATIVE OF THE YEAR
Sustainable Shipping Awards 2011

Partners



Partners are suppliers of services, products, technology and/or equipment that offer environmental advantages or opportunities to help companies improve their environmental performance.



Drew Marine





Why Green Marine?

Action plan & Roadmap



2013 Self-Evaluation Guide

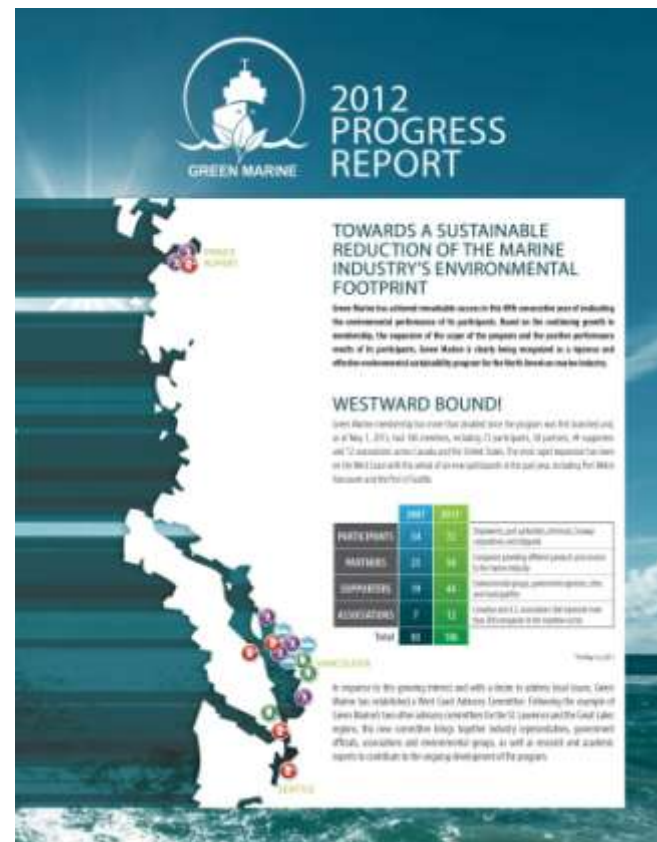
Green Marine Environmental Program

Ports, Terminals, Shipyards & St. Lawrence Seaway Corporations

4) COMMUNITY IMPACTS - LEVEL 3

Has the port or the company fulfilled the following criteria?	Status	Proof / Justification
<p>4.3.1 Adoption of a plan for managing community impacts, which formally incorporates all applicable the best practices, set out in level 2. Such a plan is to include a procedure for handling complaints.</p> <p><u>Note:</u> See Annex 3</p>	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	
<p>4.3.2 Periodic sampling (at least once in the last two years) of noise and / or air emission (dust and/or odors) in the problem areas.</p>	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	
<p>4.3.3 Evaluate environmental and social aspects of new projects (carried out after January 1st, 2013). Optional for 2013.</p> <p><u>Note:</u> For terminal operators, new projects are new services provided or new products handled that can have an impact on the environment and/or the community.</p>	<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> N/A	

Demonstrate & Communicate



Governance tool



Maintain social license to operate





GREENTECH 2014

GREEN MARINE ANNUAL CONFERENCE

GREEN TECHNOLOGIES AND INNOVATION
FOR MARINE TRANSPORTATION

JUNE 10, 11 & 12, 2014
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