



# **Transforming the Marine Transportation System**

## ***Marine Spatial Planning – Canadian Perspectives***



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## Marine Spatial Planning

### *Outline*

- *Our Challenge*
- *Activities*
- *Examples*
- *The Path Forward*





# Challenges

## Size

*2<sup>nd</sup> Largest Country in the World*

*3 Oceans – 6 million km<sup>2</sup>*

*25% of the World's Coastline – 244,000 km*

*20% of the World's Freshwater (9% Renewable)*







## Challenges

## Competing Uses





## Challenges

## Emerging Uses







## Challenges

### Oceans Governance

- *Fragmented*
- *Complex*
- *Lacks Transparency*
- *Reactionary*





## Activities

### Canada's Oceans Act (1996)

The Oceans Act provides a framework for modern ocean management. It calls for the Minister of Fisheries and Oceans to lead and facilitate the development of a national ocean management strategy.

#### Principles:

- Sustainable Development
- Integrated Management
- Precautionary Approach



*“...develop a dynamic and diverse oceans economy in a way that ensures that we will protect the marine environment on which that economy is based.”*



## Activities

### Canada's Oceans Action Plan

*“...maximizing the use and development of oceans technology, establishing a network of marine protected areas, implementing integrated management plans, and enhancing the enforcement of rules governing oceans and fisheries...”*

**The Oceans Action Plan is based on four inter-connected pillars:**

- International Leadership, Sovereignty and Security**
- Integrated Oceans Management for Sustainable Development**
- Health of the Oceans**
- Ocean Science and Technology**



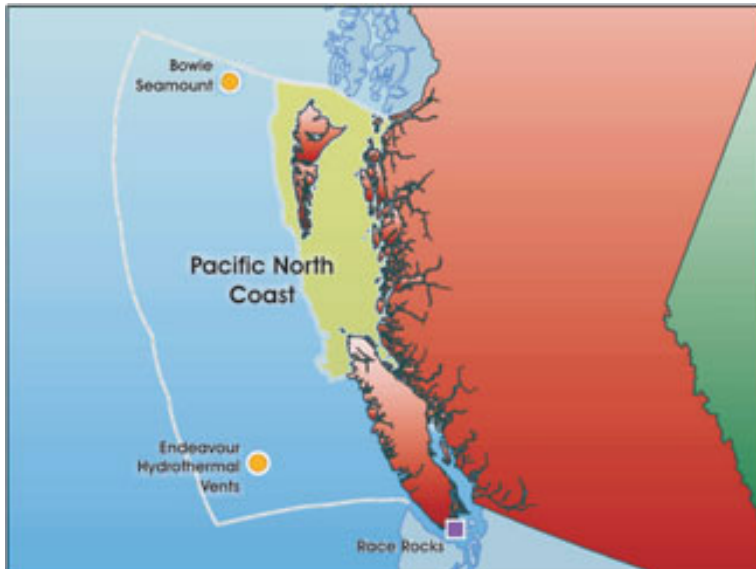
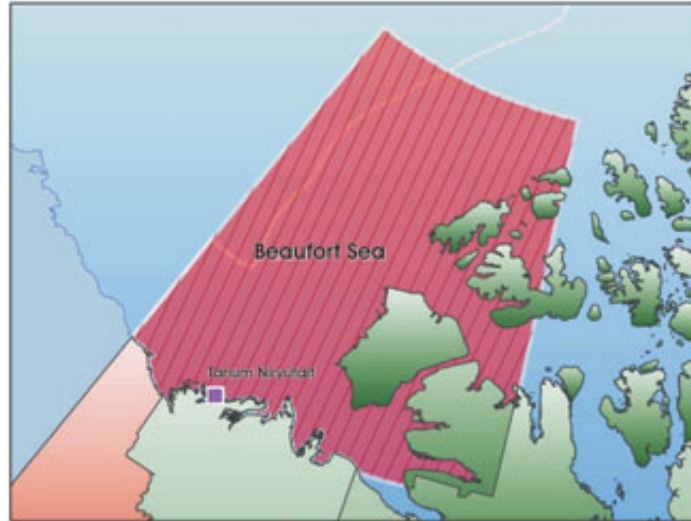




## Activities

## Large Ocean Management Areas

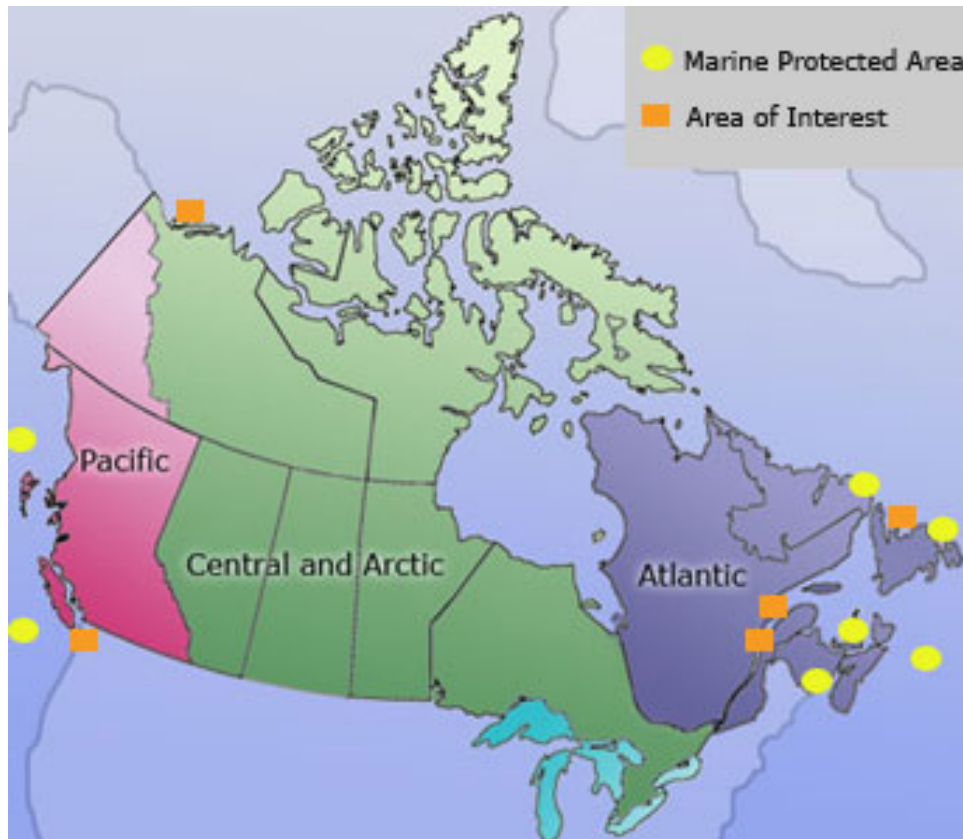
## Integrated Planning





## Activities

### Marine Protected Areas



### To protect and conserve:

Commercial and non-commercial fishery resources and their habitats

Endangered marine species and their habitats

Unique habitats, marine areas of high biodiversity or biological productivity

### Ecosystem Approach



## Beyond Governance to Integration

### Examples:

Atlantic Coastal Zone  
Information Steering Committee

Gulf of Maine Council on the Marine Environment

GeoConnections

St. Lawrence Global Observatory



**ACZISC**







## **Atlantic Coastal Zone Information Steering Committee**



Established to foster cooperation in Atlantic Canada with regards to Integrated Coastal and Ocean Management, coastal mapping and geomatics.

Networking and disseminating information via meetings, workshops, e-newsletter and ACZISC website.

Engaging stakeholders in the establishment of the Coastal and Ocean Information Network.

Participating in studies and projects for further understanding of the coastal zone.



## Gulf of Maine Council on the Marine Environment



A U.S. - Canadian partnership of government and non-government organizations working to maintain and enhance environmental quality in the Gulf of Maine for sustainable resource use by existing and future generations.

- conferences and workshops
- grants and recognition awards
- conduct environmental monitoring
- provide science translation to management
- raise public awareness about the Gulf
- connect people, organizations and information



## GeoConnections



**GeoConnections helps decision-makers use online geospatial information to tackle some of Canada's most pressing challenges. The program focuses on working with partners in public health, public safety and security, the environment and sustainable development, Aboriginal matters, and geomatics technology development.**

**Building the Canadian Geospatial Data Infrastructure**

**Standards, Policies, Data Discovery, Project Funding**





# Canadian Geospatial Data Infrastructure



## A Framework for Data

### Basic Principles

- Collect data once and use many times
- Distributed management of the data
- Centralized access by communities of practice  
(Observing Systems concept)

**Sets the principles, standards and data policies for interoperability of systems**



## St. Lawrence Global Observatory



An initiative to provide integrated access to data and information from a network of government, academic and community organizations for the sustainable management of the St. Lawrence global ecosystem by:

- implementing and managing an Internet portal for the access and dissemination of the most accurate and comprehensive information possible (scientific and other)
- using state-of-the-art information technologies and recognized standards in an architecture based on interoperability
- providing quality information products and services suiting the needs of various client groups



## Why are these examples relevant to marine spatial planning?

Convergence of policies, data and technology, plus a growing willingness, momentum and expectation to build the framework for marine spatial planning.







## One more example - E-Navigation

International Maritime Organization - *“the harmonized collection, integration, exchange, presentation and analysis of maritime information onboard and ashore by electronic means to enhance berth-to-berth navigation and related services, for safety and security at sea and protection of the marine environment”*

Integration of ship sensors, supporting information, standard user interface, and a comprehensive system for managing guard zones and alerts.

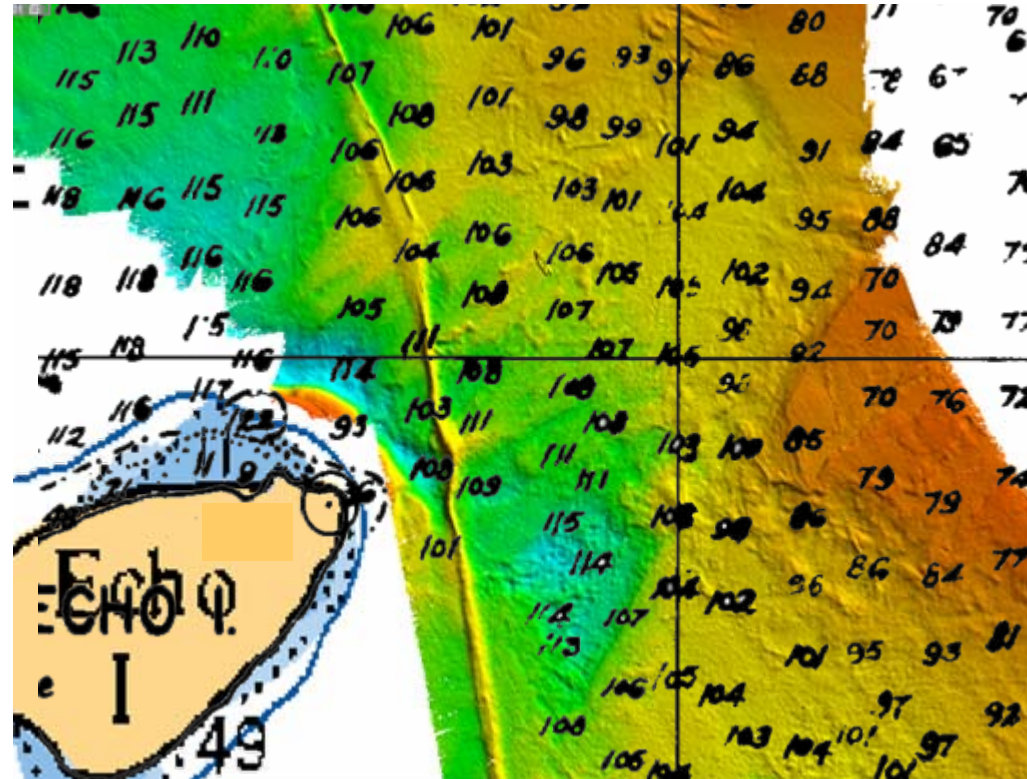
The management of vessel traffic services from ashore through better provision, coordination, and exchange of comprehensive data in formats that will be more easily understood and utilized. A communications infrastructure designed to enable authorised seamless information transfer.





## The Path to Continuous Improvement...

- Co-ordination
- Communication and Marketing
- Data Discovery
- Content
- Pilot Projects
- Data Access Policies
- Capacity Building







Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

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***Thank You!***

