

Canadian Fisheries  
Research Network



Réseau canadien de  
recherche sur la pêche

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2020 vision of Canada's Oceans Dialogue

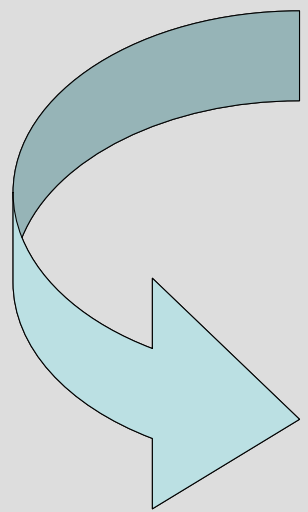
Vancouver, Dec 5, 2013



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Industry +  
Academia +  
Government



Collaborations in research  
on critical questions of  
management

# NSERC call

- The network will draw on the **extensive experience , expertise, data and technology of the fishing industry, government scientists and managers, and fisheries academics to build capacity and forge partnerships among these groups to develop a national capture fisheries sector research capacity**

# Industry Priorities:

## Need for research in support of...

- Sustainability
- Social acceptance
- Evolving ecosystem-based management
- Socio-economic viability
- Fishing community well-being

**...a sustainable industry in a changing  
landscape of management**

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# RESHAPING FISHERIES RESEARCH IN CANADA

Bringing together **industry**,  
**academia** and **government**  
to answer strategic questions  
through collaborative research

Training the **next generation**  
of **fisheries researchers**  
and **managers**

Working toward a **sustainable**  
**fishing industry** in an **evolving**  
**management system**



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# Mid-term review (Sept 2013)

- Large and growing collaboration (170+)
- Diverse research on priorities identified by industry
  - Lobster, reduced benthic impact, closed areas, impact of marine mammals, Management Strategy Evaluation
  - Strategic discussions on energy use and impacts of terrestrial/other uses on fisheries
- Lessons re:
  - Close collaboration (co-construction), needs of interdisciplinarity

**The future?**

**Fisheries in an integrated management regime!**





# Increasing need for ...

- an integrated approach
- to the management of multiple human activities
- in relation to a more diverse set of objectives and a changing environment
- that include a higher standard of ecological integrity, and diverse aspects of sustainability

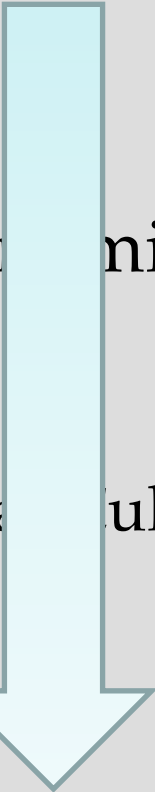
# Canadian Policy

- Sustainable Fisheries Framework
  - Conservation & Sustainable Use policies
  - IFMP – identify goals; biological and socio-economic considerations for decisions
- 2011 Office of Auditor General
  - Need explicit objectives:
    - Healthy Ecosystems
    - Sustainable human use/Social and cultural wellbeing
    - Economic well-being
    - Collaborative governance and Integrated Management

***Demands consideration of  
a broader set of objectives  
and comprehensive evaluation***

**Objectives? Information? Analyses? Used in decisions?**

---

Ecological  
  
 Economic  
 Socio-cultural  
 Institutional

Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
General Variable	No	No	Yes
Yes			

**Is More  
Information  
Required?**

**What type?**

**Who is best  
to provide  
it?**

**What is our  
capacity to  
provide it?**

Ecological

No\*

Economic

Yes

Social/Cultural

Yes

Institutional

Yes

?

(S. Paul)



*Framework for comprehensive  
evaluation of fishery system*

# Framework

Comprehensive set of sustainability objectives



Canada's Policies and International Obligations



New/Different Info and Relevant Performance Indicators

## Ecological

- Productivity
- Biodiversity
- Habitat

## Social and economic

- Sustainable communities
- Health and well-being
- Ethical fisheries
- Economic/financial viability
- Distribution of access and benefits
- Regional economic benefit

## Institutional

- Institutional arrangements
- Good governance
- Participatory decision-making
- Effective management

Sustainable Fisheries Framework  
Canada's Sustainable Development Strategy  
2004 Policy Framework for Management of Fisheries  
2002 Canada's Oceans strategy  
UNCLOS, Code of Conduct  
...

# Framework

Framework & Performance Methods

RESEARCH APPROACH

Development & Evaluation of Policy/Objectives/Performance

# Future of Canadian fisheries?

- Challenges of future management → need interdisciplinary approach
- Increasing public pressure to demonstrate sustainability → 'social license'
- Important gaps in information and methods → unique potential contributions of fishing industry, academia and government
- Recognition of the need for a new way of doing things → participatory management

Collaboration → capacity building → participation

# Increasing need for ...

- an integrated approach
- to the management of multiple human activities
- in relation to a more diverse set of objectives and a changing environment
- that include a higher standard of ecological integrity, and diverse aspects of sustainability



# Needs/challenges?

- Articulation of objectives (conservation, social, economic and institutional)
- Methods for comprehensive evaluation (including decision support tools, cumulative effects)
- New data requirements (what and from whom)
- Capacity development for participatory, integrated management

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# Network Vision

- Reshape fisheries research in Canada
- Bring together industry, academic community, government researchers
- Establish close (co-constructed) collaborations on critical issues
- Train a cohort of practitioners for future
- Improve sustainability and viability of industry

# Diverse projects re Industry priorities

1. Increasing industry information for addressing key knowledge gaps in support of key commercial fisheries
  - 1.1 Enhanced fisheries knowledge for an evolving mgmt regime – demonstrating sustainability
  - 1.2 Metapopulation dynamics, management units and productivity of lobster
  - 1.3 Recruitment and early survival of lobster
  - 1.4 Effects of socio-economic complexity on dynamics of harvested stocks in the Great Lakes

# Diverse projects re Industry priorities

2. Promoting ecological sustainability and operational efficiency

2.2 Reducing seabed impacts of mobile fishing gears

3. Improved evaluation and effective ecosystem-based management

3.1 Fishery closures in ecosystem-based fisheries management

3.2 Assessing the impact of marine mammals on the recovery of salmon, rockfish, herring and cod

3.3 (a-e) Management strategy evaluation in Canadian fisheries