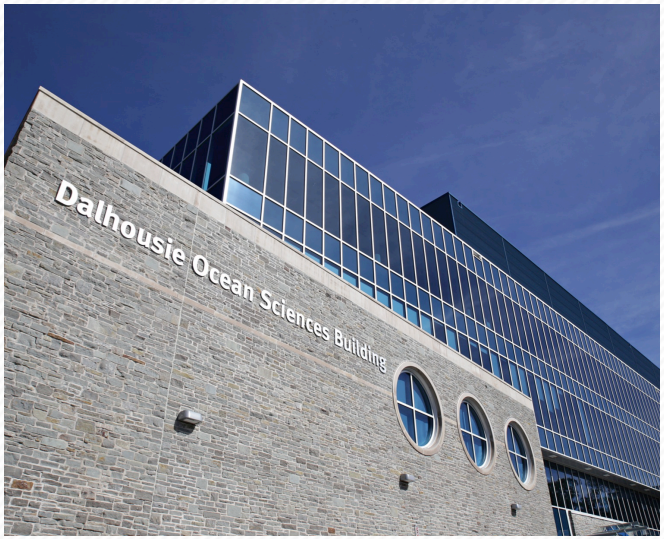
MEOPAR

The Marine Environmental Observation Prediction and Response Network

Canada

NCE RCE
Networks of Centres of Excellence of Canada | Réseaux de centres d'excellence du Canada

WHO WE ARE



NATIONAL NETWORK
hosted by Dalhousie University in Halifax

$25M Federal funding (2012-2017)
renewable twice; additional funding from partners

brings together Canadian **researchers**, **stakeholders** and **users** in a multisectoral **partnership** to better understand and predict the impact of marine hazards on human activities and ecosystems….

AND IMPROVE RESPONSE.

DALHOUSIE UNIVERSITY
Inspiring Minds

Building a resilient relationship with the ocean for Canada, from sea to sea.

MEMBERSHIP

12 Member Universities
50+ Investigators

University involvement to be grown via:

- Open Calls and Recruitment Program
- Sharing of resources across Network via Observation and Prediction Cores

MEOPAR

THE CANADIAN SITUATION

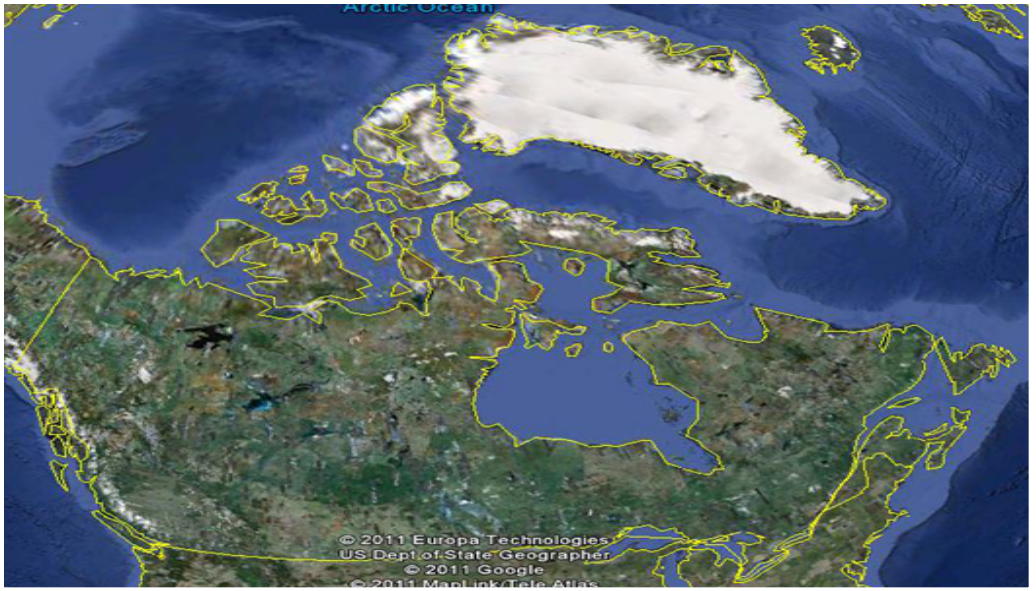
Bounded by three oceans

World's longest coastline.... by far

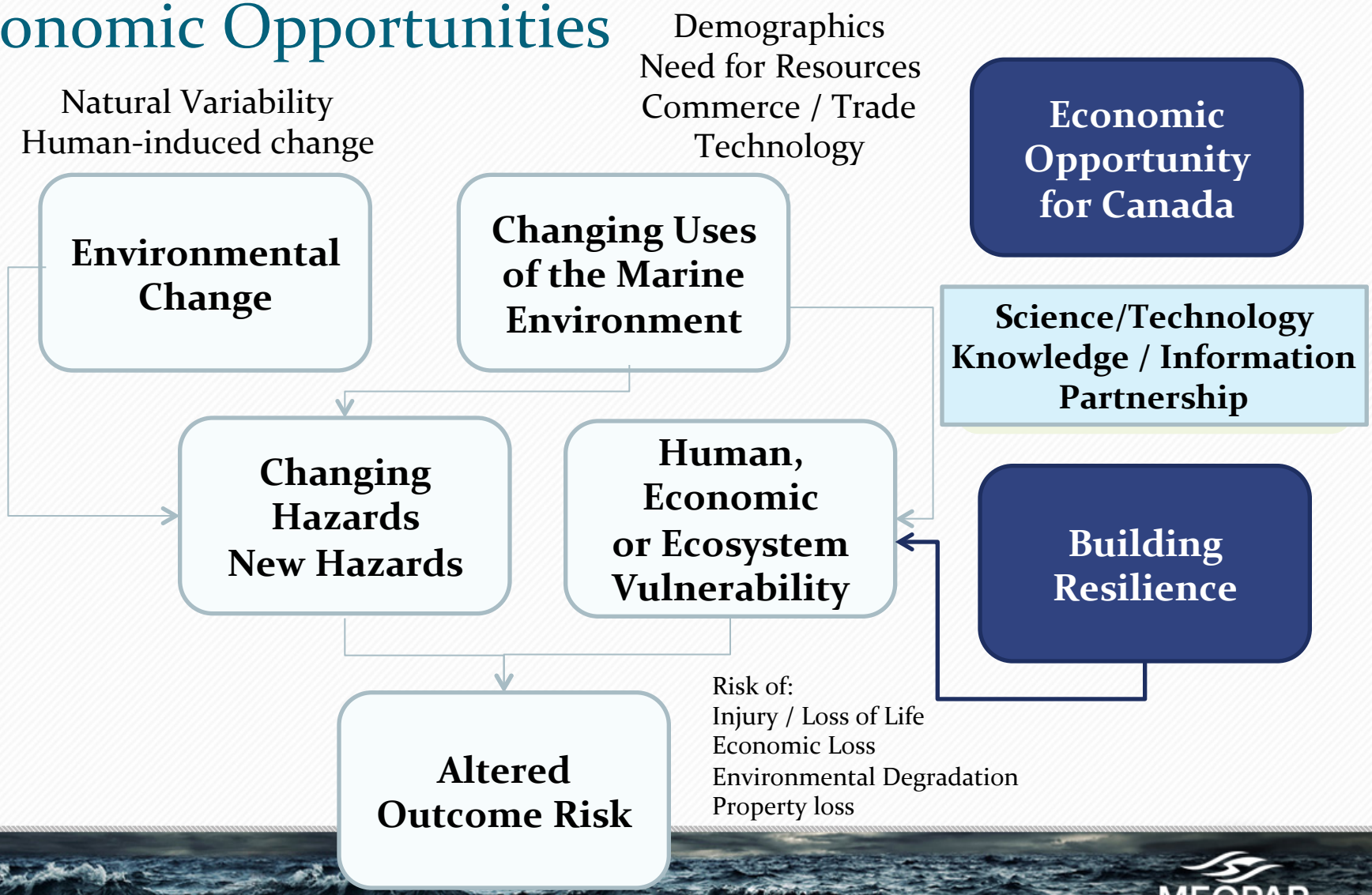
Complicated jurisdiction over marine hazards (FPT)

Distributed research capacity – not always inter-connected

A growing role for University-based research



Simultaneous Change → New Risks..... and Economic Opportunities

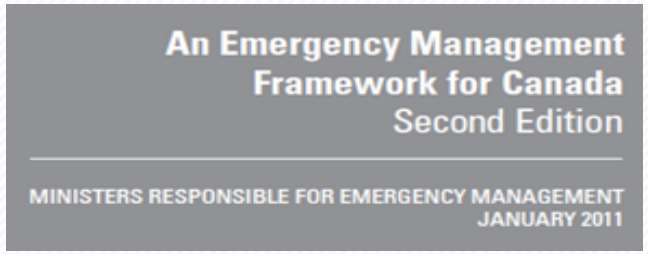


MEOPAR

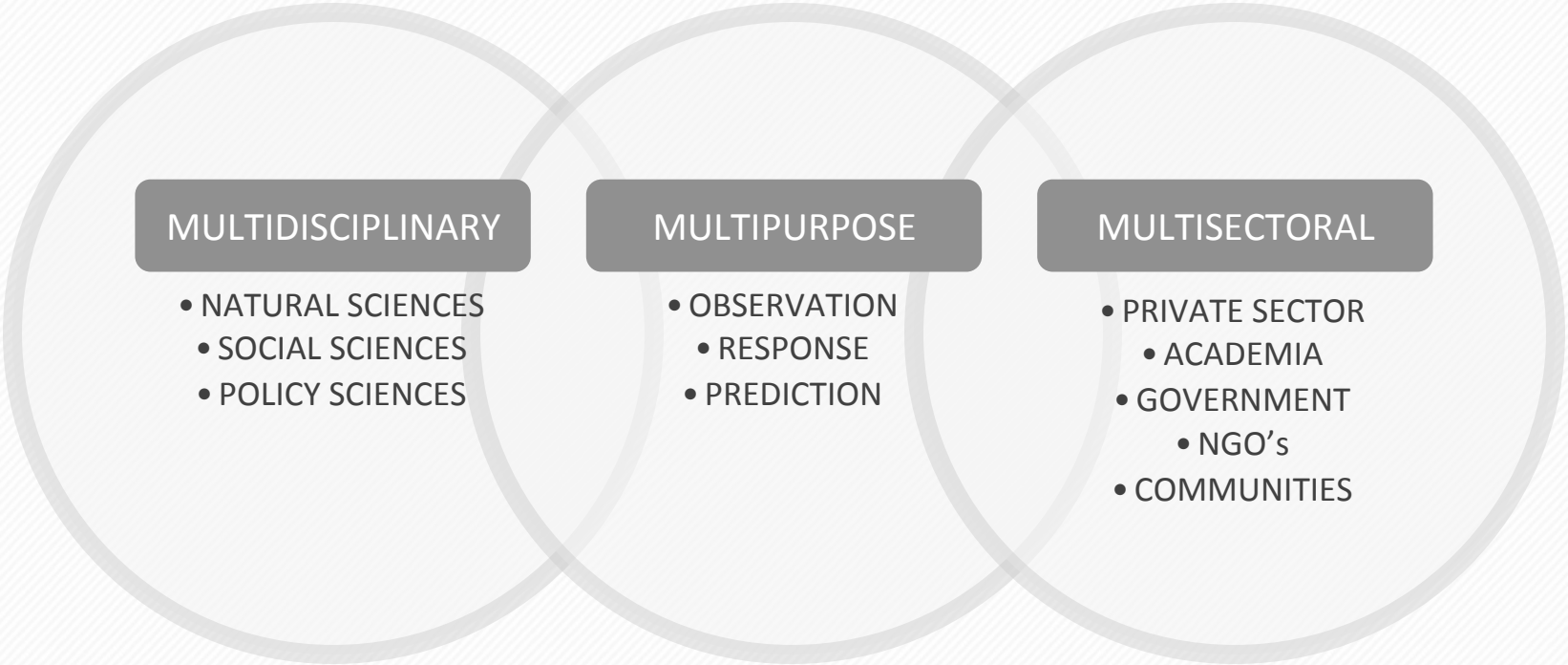
GOVERNMENT OF CANADA FRAMEWORK

Looking ahead, it is important to acknowledge both the foreseeable and unforseeable issues that may shape future vulnerability, hazards and disasters in Canada. Factors such as climate change, environmental change, demographic transition, urbanization, and interdependency of critical infrastructure.....

By encouraging all segments of society....to take responsibility and participate in emergency management, whole of society resilience can be achieved.



MEOPAR'S VISION: OUR NETWORK



RECEPTORS

PRIVATE SECTOR

- INSURANCE INDUSTRY
- OIL & GAS INDUSTRY
- FISHERIES & AQUACULTURE
- TRANSPORTATION

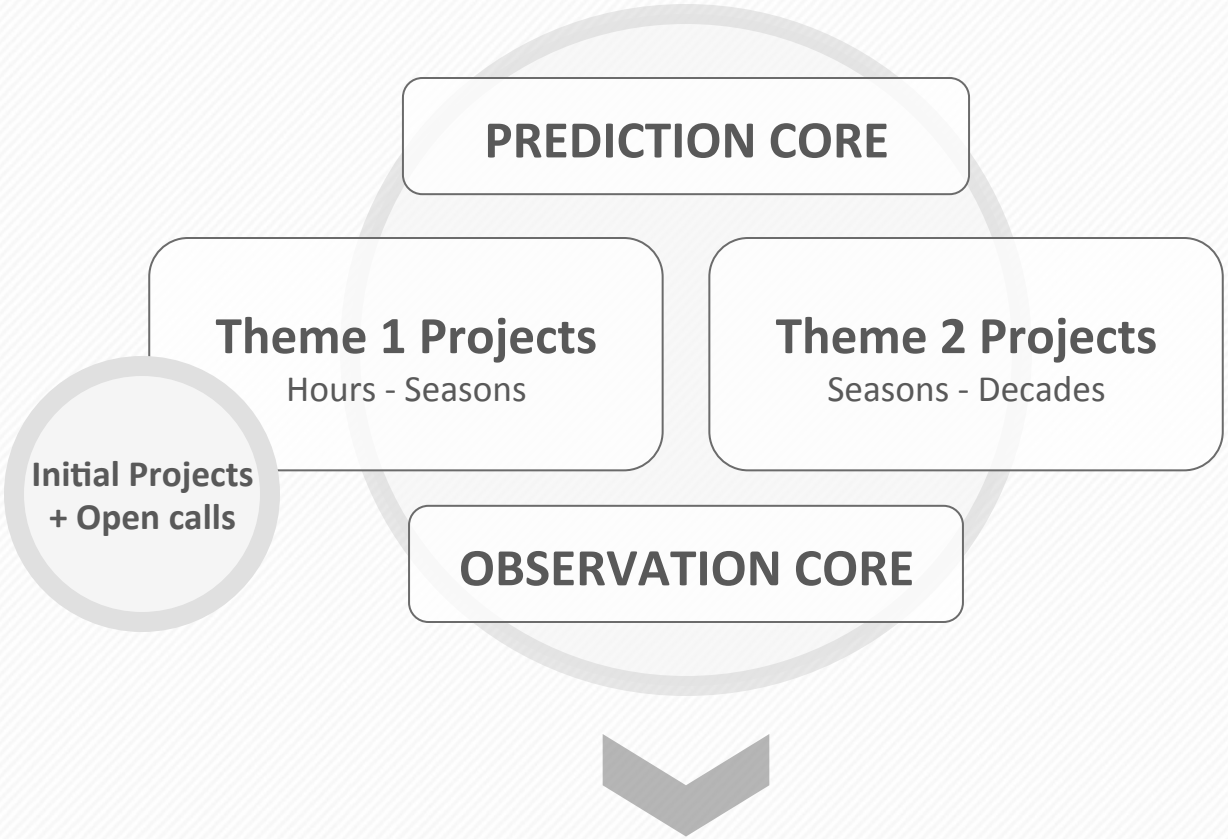
GOVERNMENT

- ENVIRONMENT CANADA
- DEFENCE RESEARCH & DEVELOPMENT CANADA
- FISHERIES & OCEANS
- PROVINCIAL &
- MUNICIPAL

STAKEHOLDERS

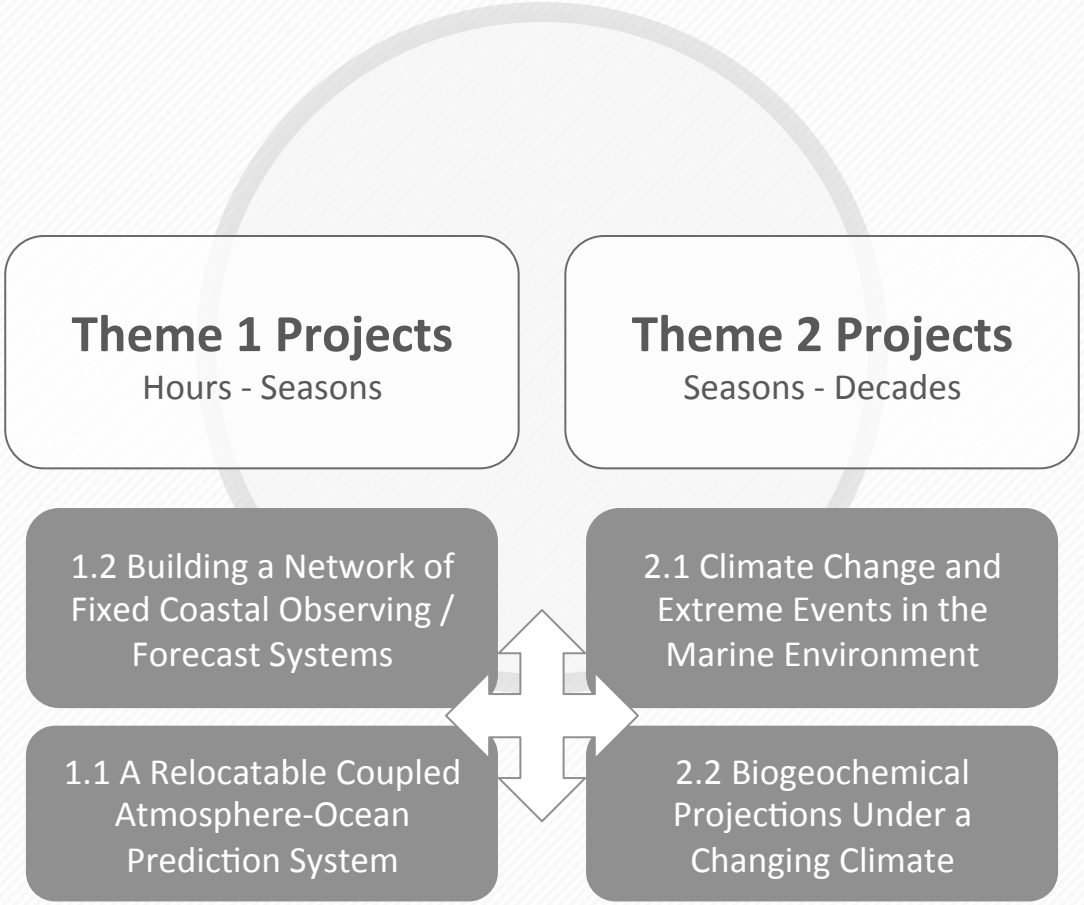
- COASTAL COMMUNITIES
- NGOs
- FIRST NATIONS & INUIT

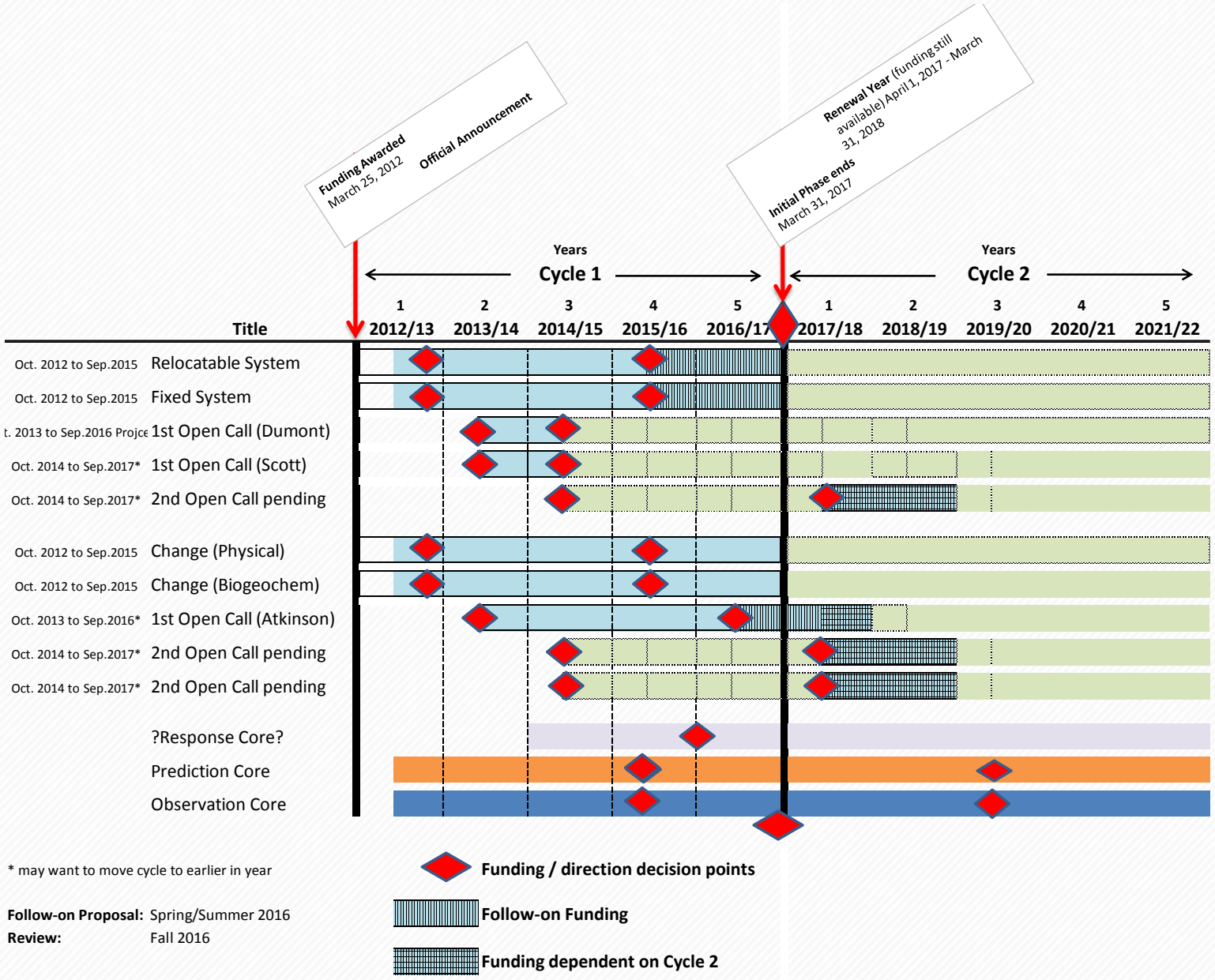
RESEARCH PLAN: ORGANIZATION



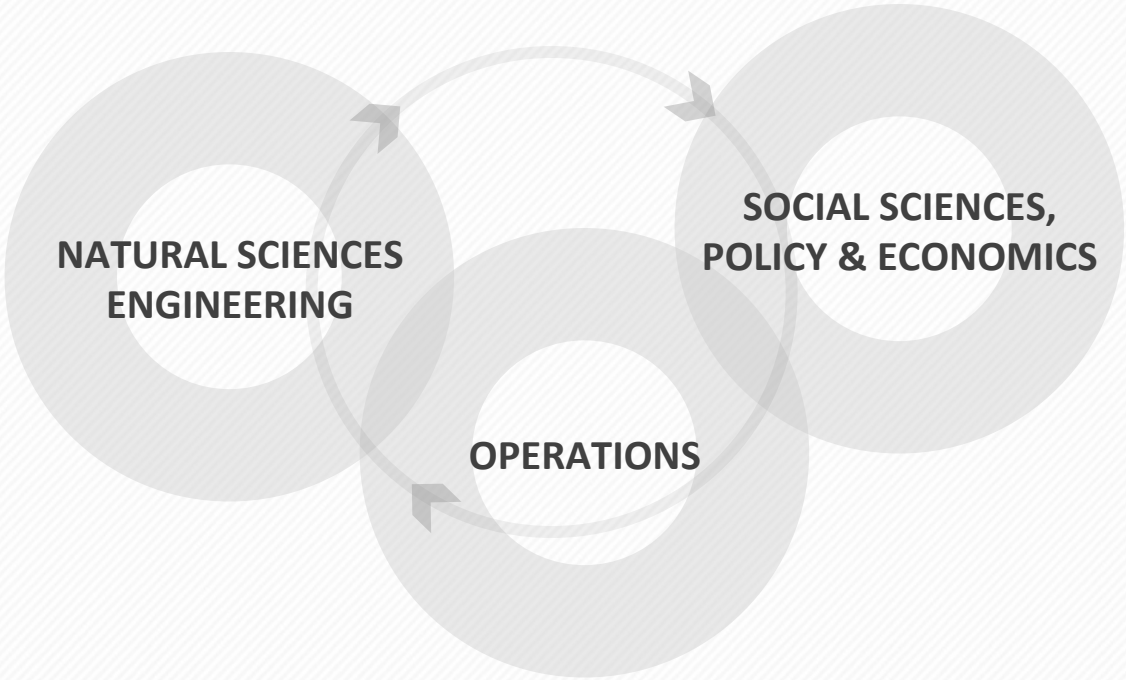
SCIENCE | TECHNOLOGY | TECHNIQUE

THEME 1 & 2: INITIAL PROJECTS




Funding Awarded
March 25, 2012
Official Announcement
Renewal Year (funding still available) April 1, 2017 - March 31, 2018
Initial Phase ends
March 31, 2017
Years
Cycle 1
Years
Cycle 2
1 2 3 4 5 1 2 3 4 5
Title
2012/13 2013/14 2014/15 2015/16 2016/17 2017/18 2018/19 2019/20 2020/21 2021/22
Oct. 2012 to Sep.2015 Relocatable System
Oct. 2012 to Sep.2015 Fixed System
t. 2013 to Sep.2016 Projce 1st Open Call (Dumont)
Oct. 2014 to Sep.2017* 1st Open Call (Scott)
Oct. 2014 to Sep.2017* 2nd Open Call pending
Oct. 2012 to Sep.2015 Change (Physical)
Oct. 2012 to Sep.2015 Change (Biogeochem)
Oct. 2013 to Sep.2016* 1st Open Call (Atkinson)
Oct. 2014 to Sep.2017* 2nd Open Call pending
Oct. 2014 to Sep.2017* 2nd Open Call pending
?Response Core?
Prediction Core
Observation Core
* may want to move cycle to earlier in year
Follow-on Proposal: Spring/Summer 2016
Review: Fall 2016
Funding / direction decision points
Follow-on Funding
Funding dependent on Cycle 2

HQP TRAINING STRATEGY



BUILD BRIDGES BETWEEN SECTORS

PARTNERSHIP PROGRAM

THE OBSERVATION CORE
(Brad deYoung, Lead)

TARGETED DEVELOPMENT OF OBSERVATIONAL TECHNIQUES AND PLATFORMS
of relevance to MEOPAR's projects and the Network's wider strategic goals

- "DORADO" autononomous surface vehicle for mesoscale ocean mapping
- Tethered buoyancy-driven profiling float

AUGMENTATION OF EXISTING MEASUREMENT SYSTEMS
in regions of significance for MEOPAR projects and strategic goals

- Atlantic Shelf observations
- Strait of Georgia (VENUS) observations

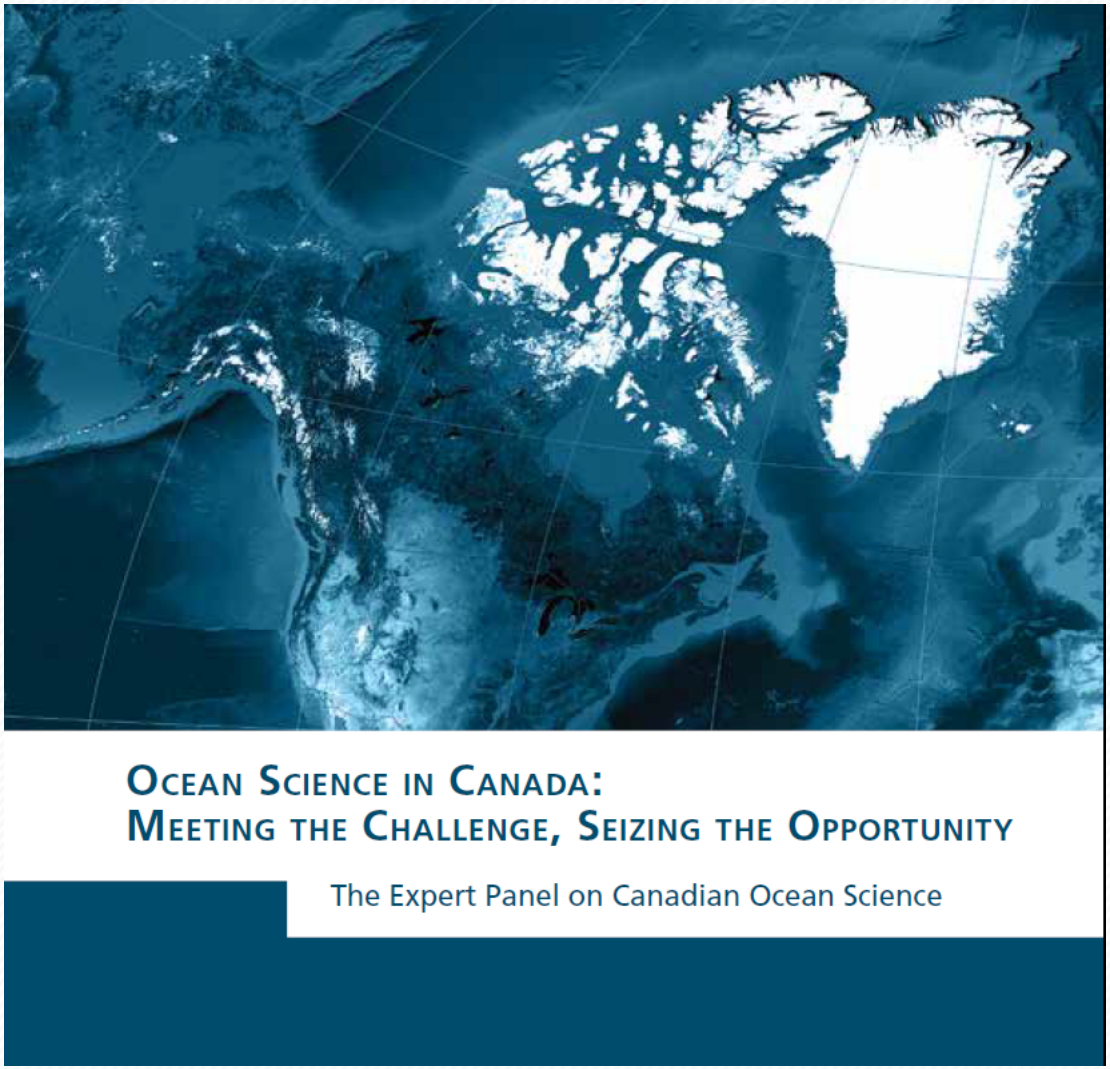
NETWORK SUPPORT SERVICES
as required by projects and in support of MEOPAR's overall strategic goals

- coordination and shared operation of observing systems
- assembly and support of access to observational data sets
- shared provision of technical support, equipment and quality control

THE OCEAN OBSERVATION CHALLENGE IN CANADA:

Excerpts from:

Canadian Council of Academies Report on Canadian Ocean Science (2013}



2.3 The availability of smaller autonomous platforms such as autonomous underwater vehicles (AUVs) and gliders greatly reduces the cost of access to observation and sampling to a level at which they can be purchased and customized by individual researchers (Kintisch, 2013), if the necessary technical staff and support infrastructure are available.

5.1 ….Making use of new and existing technologies for effective observation is a challenge that requires coordination and alignment of stakeholders in the Canadian ocean science community.

5.1.1 Novel approaches to observation systems, data processing, and delivery to users will benefit from collaboration between ocean and computer scientists with economists, sociologists, geographers, business researchers, and others

6.3 Coordination challenges also exist in sustaining large-scale observation, effectively allocating resources, and planning, managing, and sharing infrastructure at the national level.

Executive Summary: Canada has several world-class systems for ocean observation and monitoring; however, challenges exist in achieving geographical coverage and integration of data management.

These workshops:

Review and report on current and planned activities, status, issues/problems

Compare situation in Canada with related situations / issues / solutions in Europe and the USA

Identify opportunities for (national/international) partnerships leading to efficient solutions to common issues

Draft report (before leaving!) addressing, needs and opportunites

Identify and plan next steps

(gliders includes focus on hardware)

QUESTIONS?

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