



Halifax Regional Municipality CP & ED Standing Committee Meeting

**Stephen Dempsey
Executive Director**

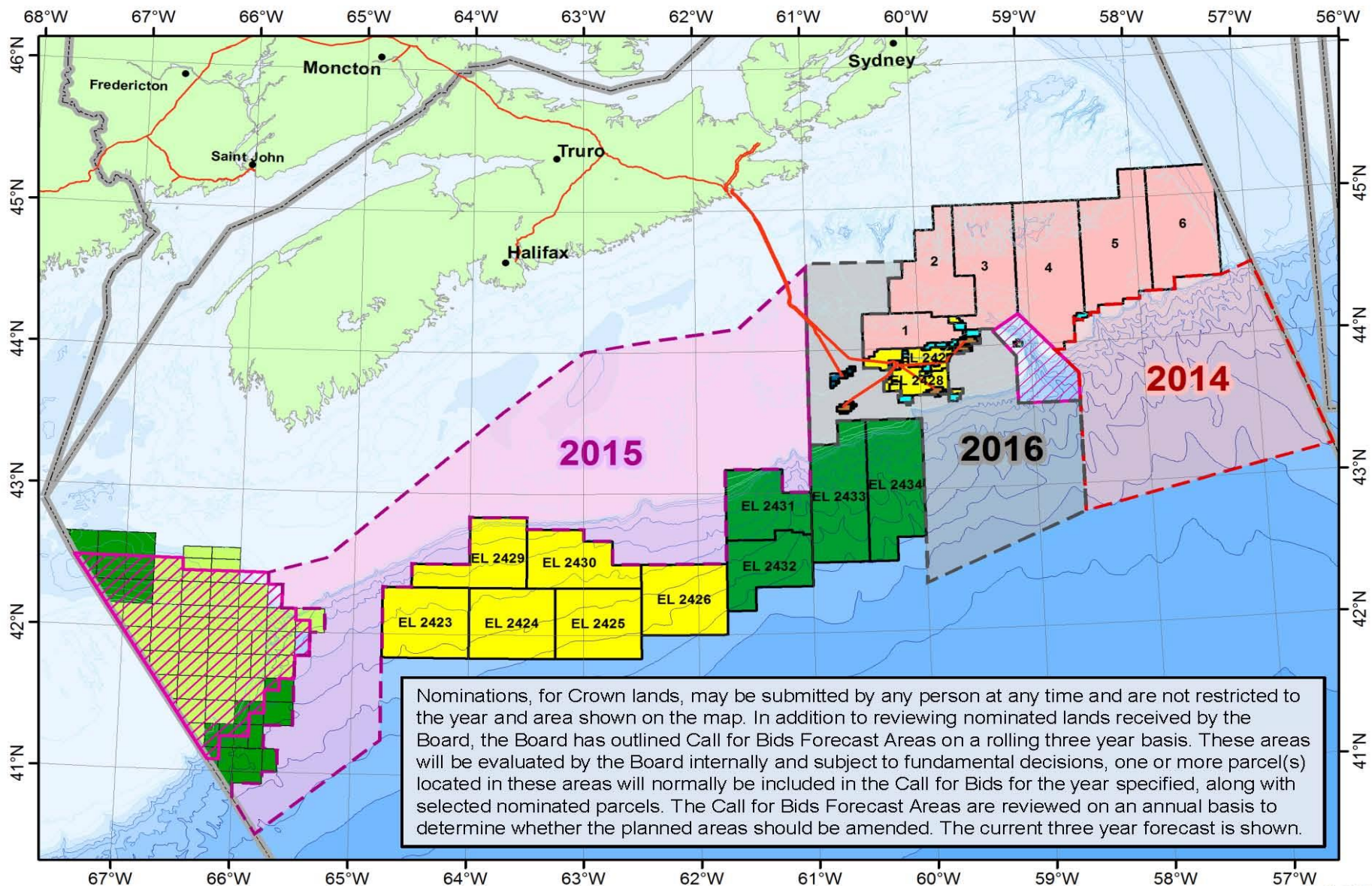
Outline

- **OERA Overview**
- **‘Current Circumstances’**
- **Research Priorities Setting Process**
- **Resourcing and Implementation**
- **Stakeholder Engagement**
- **Strategic Environmental Assessments**
- **Tidal Value Proposition – Business Case**
- **Conclusions**

OERA is:



CNSOPB Call For Bids Forecast Areas



April, 2013

Geoscience Research Priorities

**Petroleum
Geochemistry – SW
Region (PFA zones
1&2)**

**Biostratigraphy -
Triassic to Jurassic
periods**

**Reservoir Quality –
Sable & NE Region
(PFA zones 3&5)**

**Seismic
Reprocessing –
Orpheus Graben &
Sydney Basin Area**

**Improvement of Oil
Rim Understanding –
NW of Sable through
to NE (PFA zone 5)**

Play Fairway Analysis

**‘Presenting Nova Scotia’s Offshore
Geoscience Picture in a New Method’**

Play Fairway Analysis: Significant Outcomes

Resource Potential

- 121 trillion cubic feet of natural gas
- 8.15 billion barrels of oil

Impacts

- technical and engineering barriers
- reignites exploration interest
- Benefits all NS - industry spin-offs

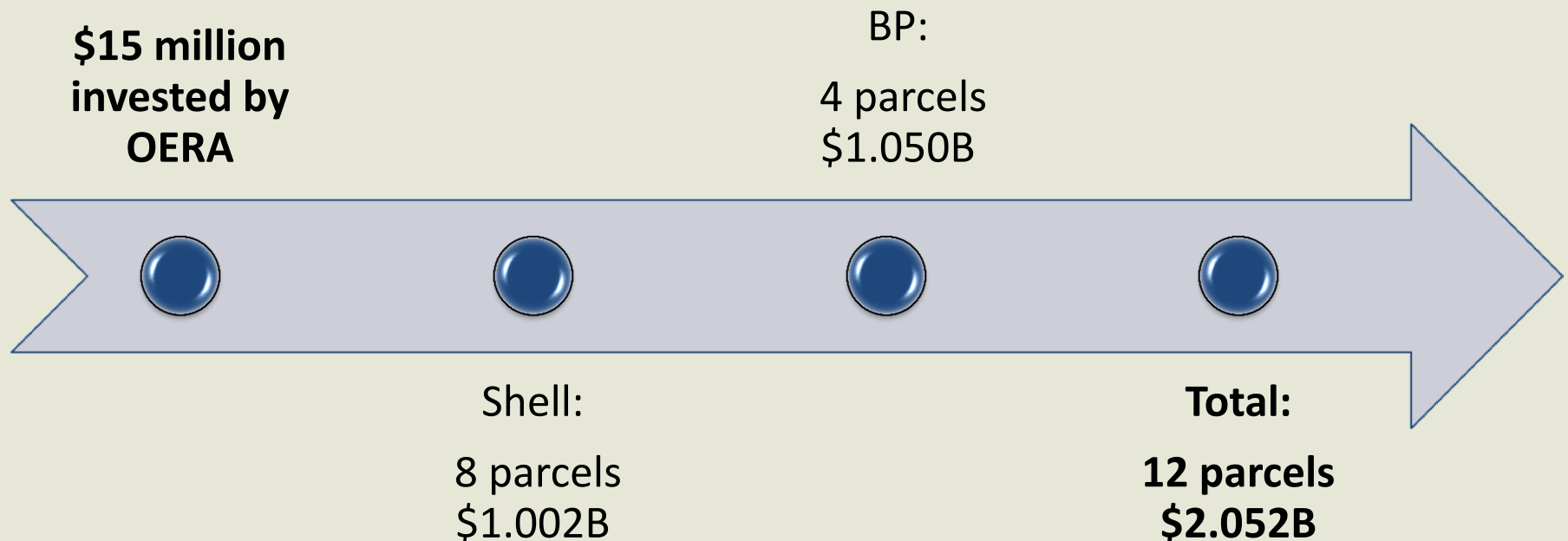
Program Management

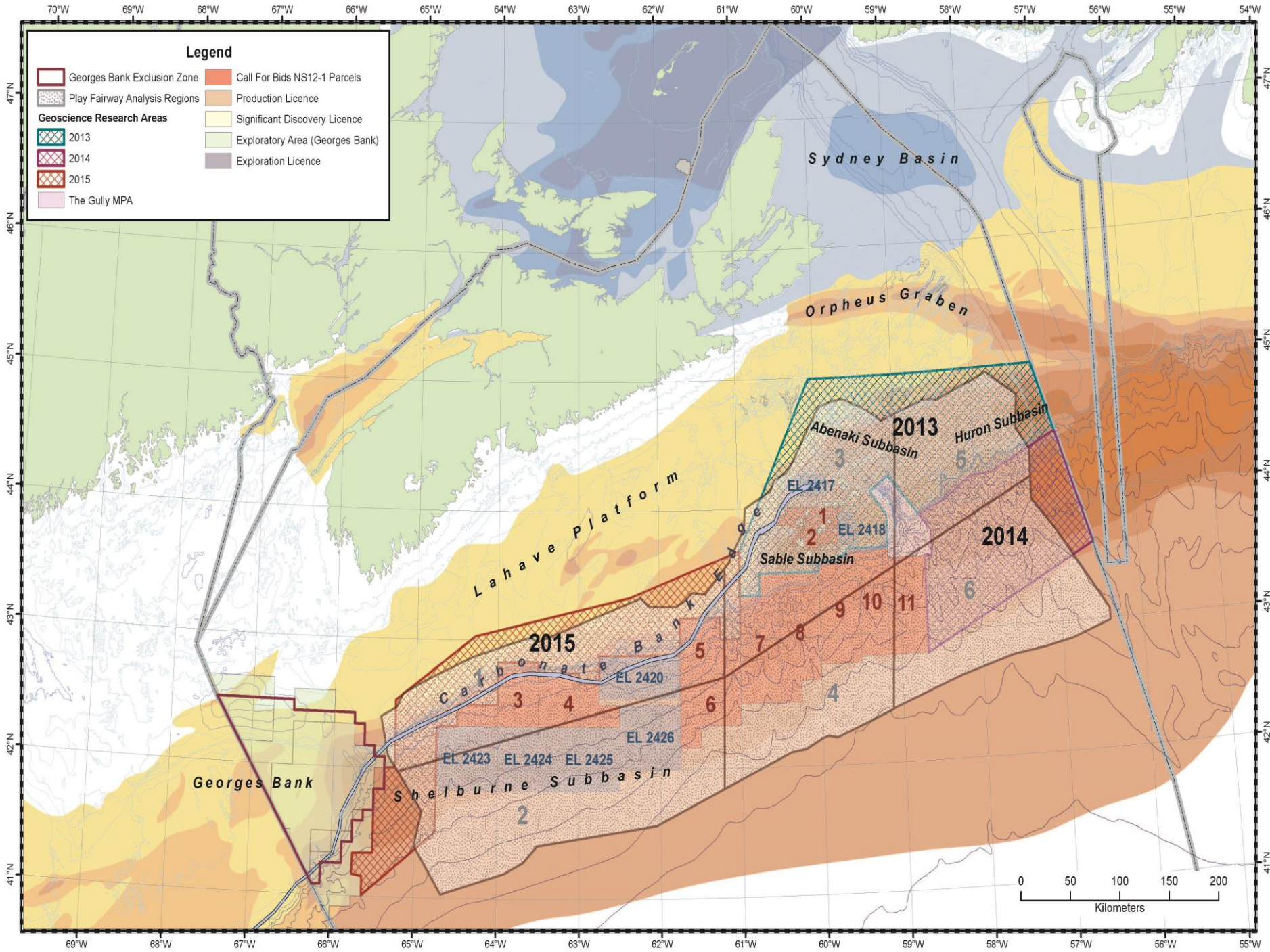
- ~ 60 Research Project Contracts
- ~ \$15 million investment

Collaboration

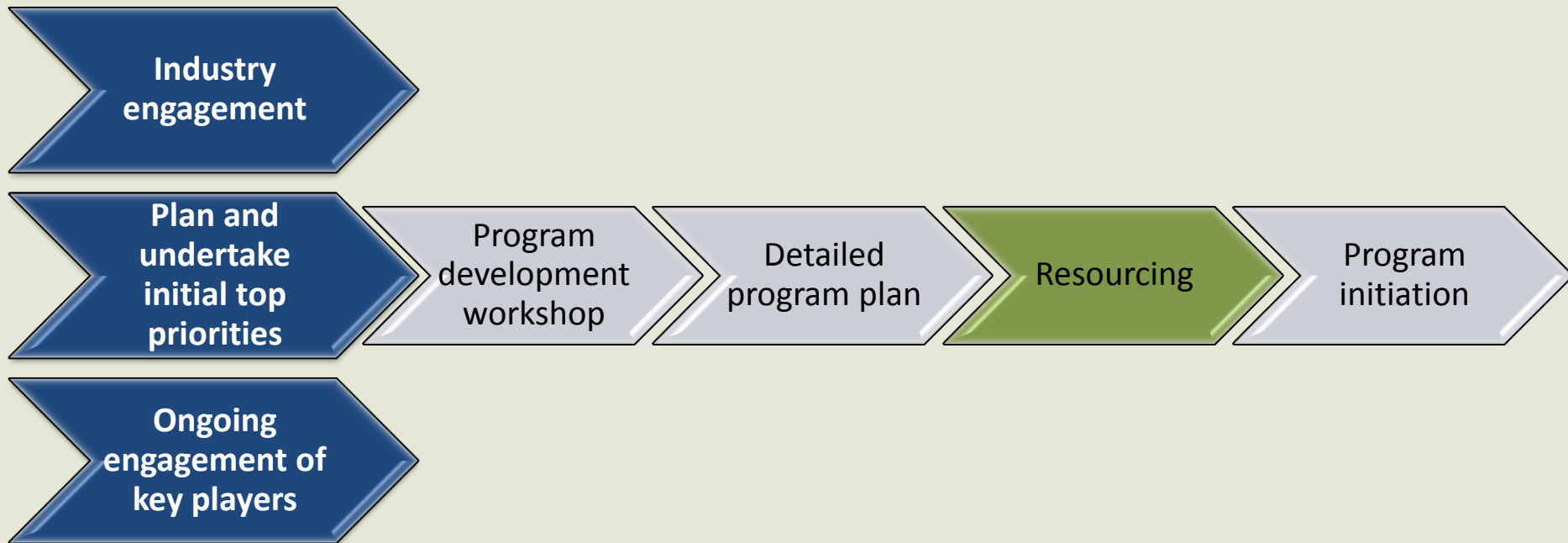
- Nova Scotia academic institutions
- CNSOPB
- Geological Survey of Canada

Research Activity Outcomes





Play Fairway Analysis – Phase II



Economic Development Opportunities from Offshore Petroleum Development

Port Development

Logistics / Trucking

Energy Sector Supply Chain

Research / Technology

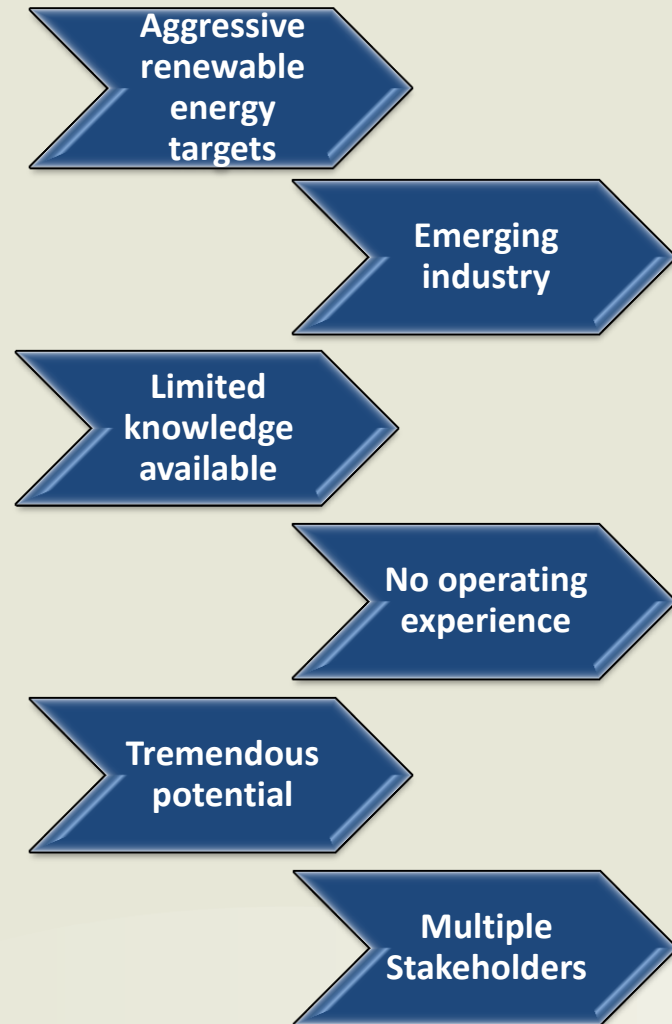
Academic Institutions

Industrial Development

Other

Marine Renewable Energy

Nova Scotia Marine Renewable Energy Environment



Tidal Energy Potential in Nova Scotia

Nova Scotia's Provincial Renewable Energy Targets

- * By 2015 - 25% of the renewable sources
- * By 2020 - 40% renewable sources



Bay of Fundy: 60,000 MW Total Potential

- 2,500 MW can be safely extracted
- 300 MW target for development



Community Feed-in Tariff for Small Scale Turbines < 0.5MW

< 6 MW = 65.2¢ per kWh

Tidal Array Feed-in Tariff for Test Phase Projects *

< 5 MW = 53 ¢ per kWh


> 5 MW = 42 ¢ per kWh

*15 year term applies



Tidal Energy Research Program Focus

- Understanding MRE impacts and benefits
- Social license
- Engage partners
- Develop collaborations
- Identify resources



Tidal Energy
Resource
Assessment

Sediment
Dynamics

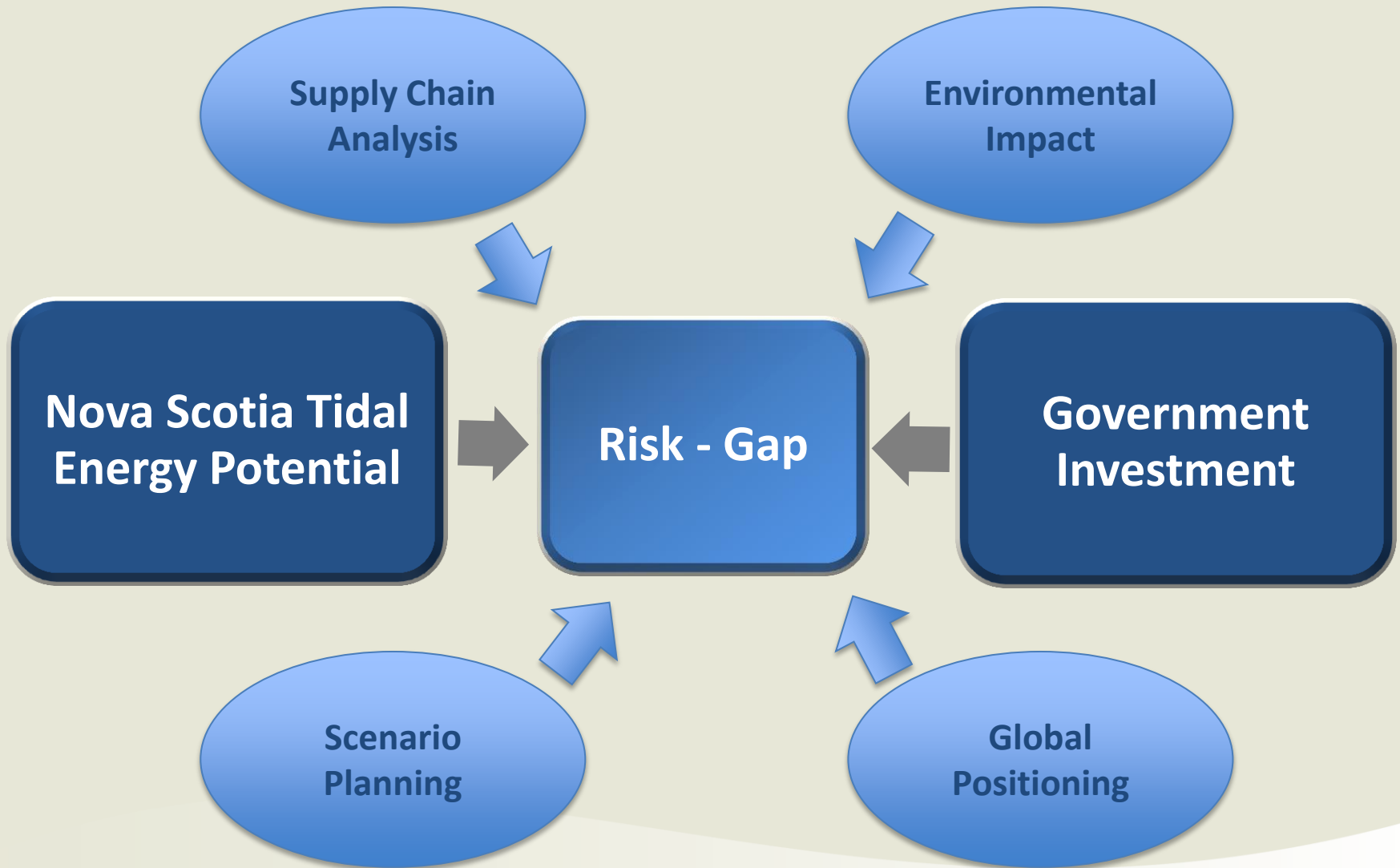
Animal
Behaviour

Near and Far
Field Effects

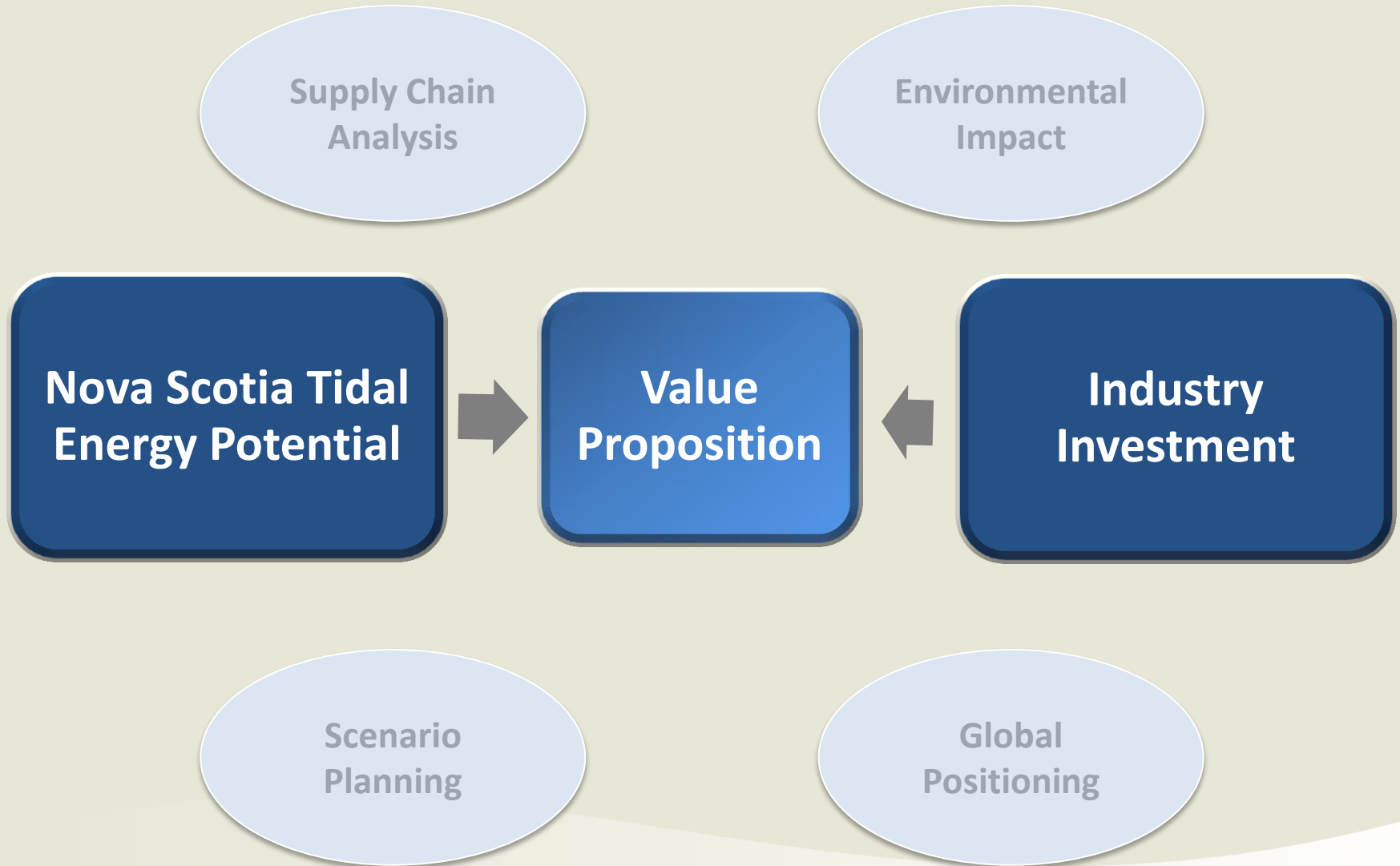
Strategic
Environmental
Assessments

Socio-
economic
impacts

Tidal Energy Risk Investment Model



Tidal Energy Risk Investment Model



Stakeholder MRE Business Case

Attract significant investment to our region

Build regional research competencies

Provide local opportunities for HQPs

Build a globally competitive MRE / Offshore Energy sector

Meet renewable energy targets & realize MRE opportunity

65,000 MW renewable power in the Bay of Fundy

Value Proposition for Tidal Energy Development

An estimate of the potential value, broader benefits and potential economic impacts of tidal power development



Informed assessment of the potential value and broader benefits – provincially, regionally & nationally



Examine 3 different scenarios of tidal power development over next 25 years



Impact on the Canadian economic opportunity in emerging world markets

Economic Development Opportunities from Tidal Energy Development

Port Development

Logistics / Trucking

Research / Technology

Academic Institutions

New Technology Creation

Global Export Opportunities

Other

Thank you

Contact information:

