The NL Ocean Technology Cluster…  
Can government make it so?

Bruce Colbourne¹, Dennis Hogan², Kristi McBride¹

¹ National Research Council Canada  
² OceansAdvance

Symposium on Growing the Economy of NL  
October 4-5, 2004, Corner Brook, NL

Opinions expressed in this presentation are not official views or policies of the NRC or OceansAdvance
University – nucleus of the cluster

- Universities & government R&D labs are essential to cluster development
- Catalyst for economic growth

The goal – stimulate sustained, long-term economic wealth & prosperity
This is nothing new

- Many clusters worldwide – first noted in 1890
- World-leading concentrations of activity
- Here, we used to say “Centre of Excellence”
- Labels change - but the idea is not a fad
- Ocean activities - our “natural” inclination
What makes a cluster?

A geographic concentration of interdependent firms with common needs for talent, technology, & infrastructure

(Source: Cluster Navigators Inc.)
Urban - rural connection

- offshore
- marine science
- aquaculture
- coastal management & security
- ferries shipping
- fishery
- boat building
- ports & harbours

ocean technology cluster
NL compared to Finland

**NL ocean technology cluster**
- Light industry
- Sub-contractors
- Niche products
- Minimal networking
- Competition avoidance
- Perception of weak domestic market

**Finnish maritime cluster**
- Heavy industry
- Core product companies
- Integrated products
- Contractor network
- Internal competition
- Domestic market strength

(Source: TEKES, 2003)
From the Finnish comparison

• We need a stronger business core
  – More companies & more people
  – Vertical & horizontal relationships
  – Commercial opportunities

• Government cannot make a business core
  – But can set the environment
  – Can exhibit & support desirable behaviors
What we do have

• Support infrastructure
  – Research facilities & education institutions
  – Talented people
  – Federal – provincial – municipal interest

• Successful companies

• Community optimism
Current clustering activities

- Placentia Bay marine electronic highway & seabed mapping proposal – CCMC
- Branding & promotion – City of St. John’s
- Ocean technology research park – Board of Trade
- Incubator consortium – MUN-NRC
- An abundance of analysis – NRC-IC-ACOA-Provincial Government
Government – improve the environment

• Education & research
  – People with ideas commercialize & make wealth
  – Education produces qualified people
  – Research produces ideas

• Infrastructure & taxes
  – Good infrastructure attracts people & business
  – Competitive taxes attract people & business
Government – lead by example

*If we won’t buy it, why would the world? or, if the world buys it, why won’t we?*

- Governments buy a lot
- Maritime nation – maritime province – maritime city
- Support our own activities
- Solve our own problems
- Export success built on domestic strength

Set the example...
There is a domestic market

Ocean-related primary industries in NL – fishing, offshore oil, marine science, coastal security, transportation, harbours, aquaculture…

- Annual expenditures: 4,915 (M$); Installed capital: 13,760 (M$)
- 30.6% of provincial GDP (43% removing health, education)
- Secondary sector provides little to primary industries (1% GDP)
- If NL firms could capture 50% of technology supply for operations & 30% technology supply for capital maintenance annually, then secondary industries would be worth $648.5 Million
- Employment increases to 8300 & yields an ocean technology cluster at 4% of GDP based on current provincial demand alone!
- Global market – from 4% to 8% GDP – some 16,000 employees!

A substantial market opportunity literally on our doorstep…

(Note: estimates based on data from NL Department of Finance)
University – part of the environment

- Education & research are key supports
  - Feedstock for a cluster
- Concentrate on product quality
  - Students & ideas
- More research
  - Where this cluster needs extra effort
- Be permeable
  - More porous interaction with the community
  - Less overhead & control
A permeable university

Everyone deals with the world around them

- Unrestricted interactions
- Open flow of ideas
- Efficient technology transfer
- Incentives to individuals
- Encourage exchange
Building competitive advantage…

“In a world of global competition, sources of competitive advantage are becoming increasingly localized and true competitive advantage is found within our communities.”

Michael Porter, Harvard University
Thank You!

Dennis Hogan
Oceans Advance
(709) 757-3250
dhogan@oceansadvance.net