



# Technology and Innovation for the Development of Small Islands: An Update in an Age of Climate Change

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Building Small Island Resilience to Global Climate Change:  
An International Symposium, Charlottetown, September 22, 2016

# Social dynamics of economic performance, innovation & creativity in city regions

- **\$ 2.5 M National Project led by Dr. David Wolfe, Munk Centre, University of Toronto**
  - The Innovation Systems Research Network (ISRN)
- **Success in new economy depends on ability of region to create conditions for innovation & creativity**
  - Harnessing Universities, Colleges, R&D Capacity
  - Attracting and Retaining Knowledge Workers
  - Creating Governance Capacity for Success: More than Government
  - Networks / Collaboration / Trust amongst key actors – private, public, NGO, education & training, key to success

# Challenges, Opportunities and Strategies for Advancing Innovation in NL, Harris Centre, 2014

- **Innovation is not limited to new technology**
- **Innovation can occur in any firm, in any sector and in all aspects of an enterprise's operation**
- **<http://innovationnl.ca>**

# Innovation: OECD

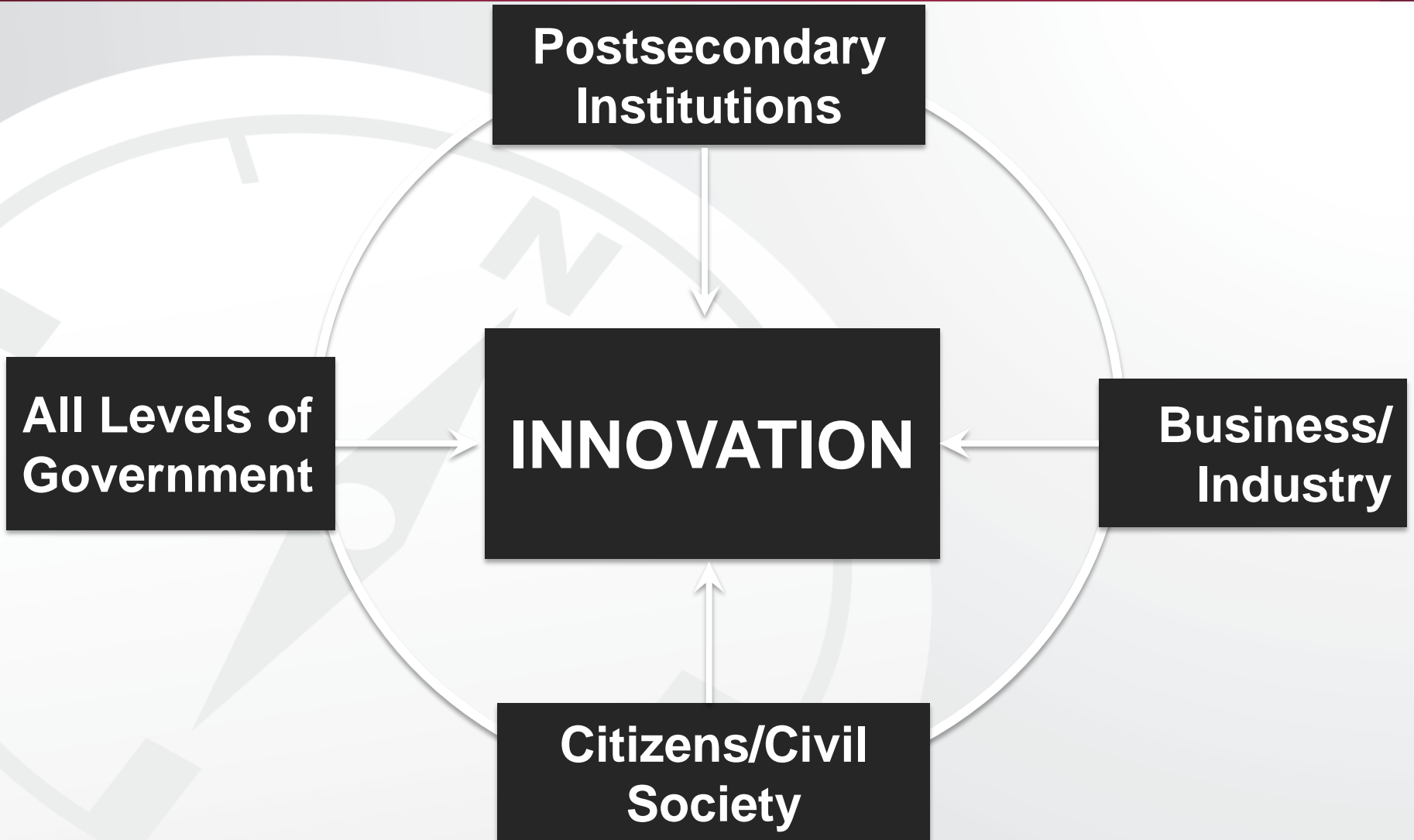
“An innovation is the implementation of a **new** or **significantly** improved **product** (good or service), or **process**, a new **marketing method**, or a new **organisational method** in business practices, workplace organisation or external relations” (OECD 2005: 46)

# Innovation is a social process

Innovation is **NOT** a  
linear process!

*Firms do not innovate  
in isolation* (Nauwelaers 2011: 468)

# Quadruple Helix



# Culture of Innovation

Employees are encouraged to take risks

Ask questions

Accept feedback

Seek novel solutions

Take time to be creative

Collaborate and engage in team work

Share knowledge

# Lessons for Small Island Innovation in an Era of Climate Change (1)

## **Adaptation and Mitigation:**

**Match needs and trends with strengths – Memorial University examples**

- **Smart Ice**
- **C-CORE**
- **Too Big to Ignore**
- **Sustainable Northern Coastal Communities Initiative**
- **COASTS: Cold Ocean and Arctic Science, Technology and Society**



# Lessons for Small Island Innovation in an Era of Climate Change (2)

## **Bridging Institutions, Platforms, Supports:**

### **Create vehicles for interaction:**

- **Centres and Institutes (Harris Centre; Institute of Island Studies)**
- **Virtual connectors: Yaffle**
- **Locations: the Battery**
- **Best Practices: Public Engagement, Knowledge Mobilization, Community-Based Research**

# Lessons for Small Island Innovation in an Era of Climate Change (3)

## Partnerships and Networks:

- **Ocean Frontier Institute: Dal, MUN, UPEI; national and international partners (industry, governments, research institutes / universities)**
- **North Atlantic Forum, international island networks, Canadian Rural Revitalization Foundation**
- **Industry Associations**

# Lessons for Small Island Innovation in an Era of Climate Change (4)

## **Execution:**

- **Good management skills (in all sectors)**
- **Value and cultivate entrepreneurship**
- **Embrace new entrants (internal and external)**
- **Subsidiarity: governance capacity at the right level for the right job**
- **A sense of urgency**
- **Continuity; overcome “that was them, this is us”**
- **Dare**



*Thank You!*