

Building Capacity: How Brokers and Facilitators are Enhancing the Contribution of Higher Education to Regional Development in Atlantic Canada

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Presentation Outline

- Profile of higher education institutions (HEIs) in Atlantic Canada
- How brokers and facilitators are enhancing the role of HEIs
- Canada's regional development agency - its commitment to supporting HEI engagement in Atlantic Canada



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Atlantic Canada

- Four most easterly provinces on the Atlantic seaboard – 7.1% of Canada's population
- Atlantic Canada faces significant economic challenges:
 - Lower per-capita earnings and incomes
 - Slow and/or volatile economic growth
 - High rural unemployment rates - substantial out-migration



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- New opportunities emerging in:
 - Energy, other resource industries
 - High-knowledge industries such as bio-sciences and financial services.
- Provinces increasingly focused on building on the strengths of higher education institutions for future economic growth
 - Provinces bear primary responsibility for post secondary education



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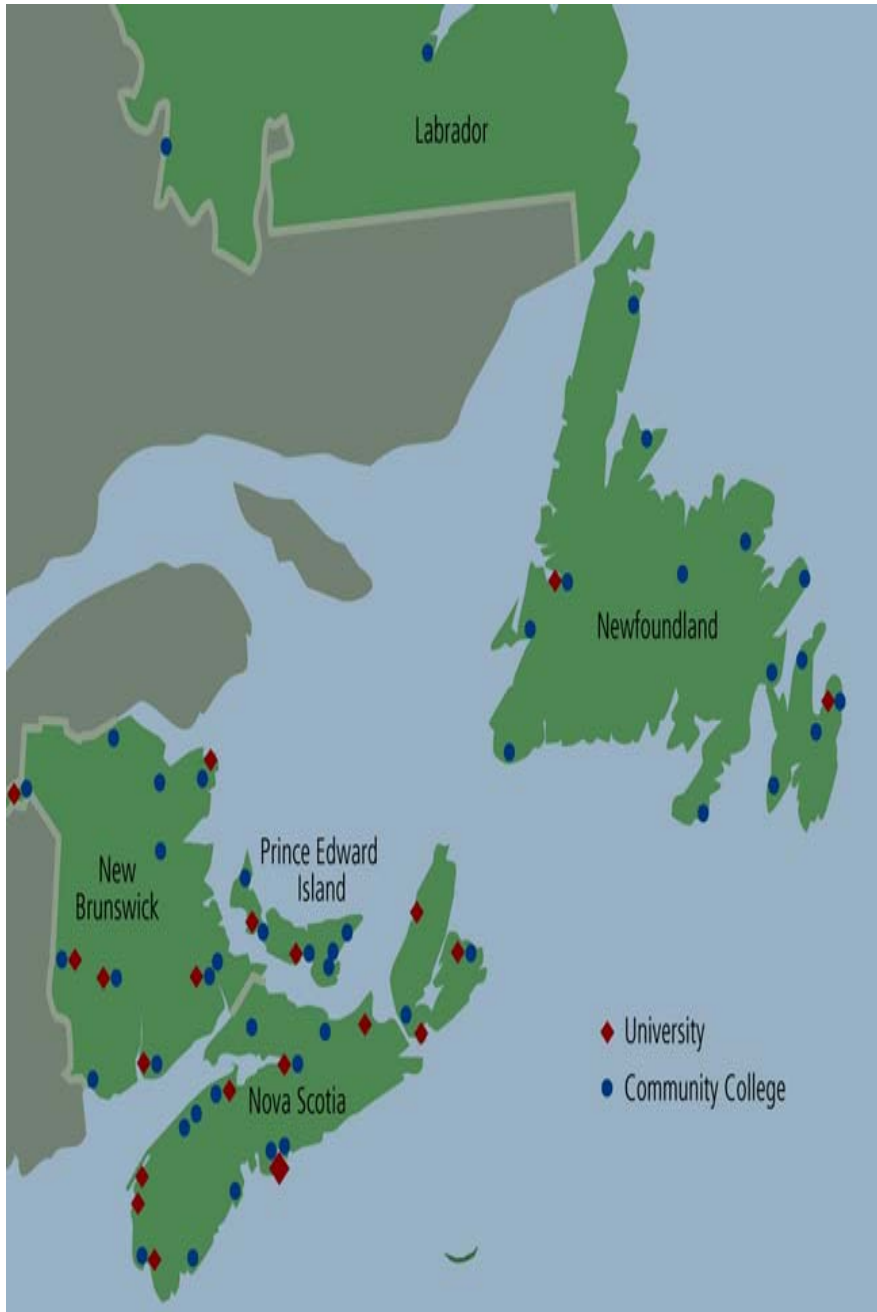


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Profile of Higher Education in Atlantic Canada

- **17 universities** (11 in Nova Scotia): 15 English, 2 French
- Most primarily undergraduate
- Research concentrated at 3 largest universities (Dalhousie U, Memorial U and UNB)



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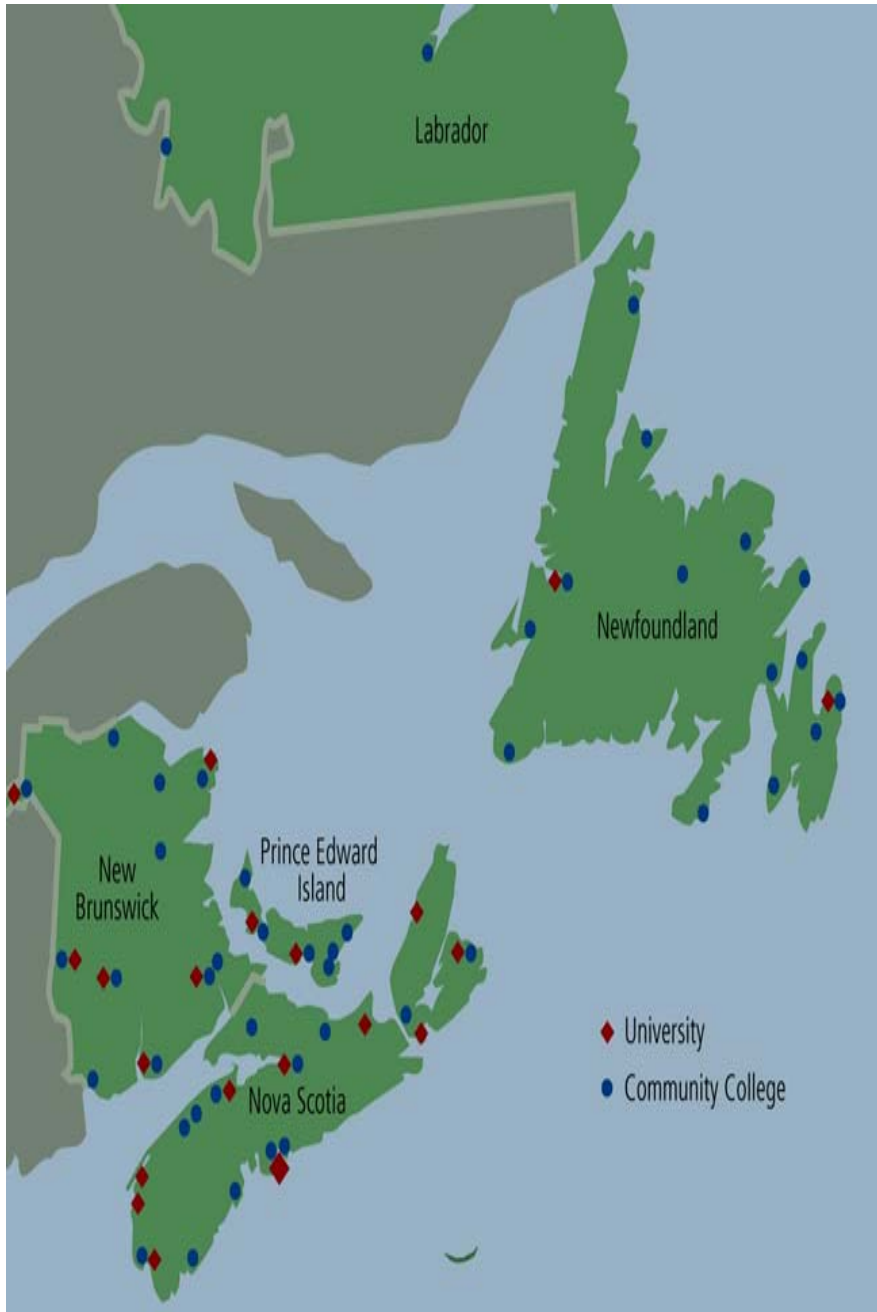


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Profile of Higher Education in Atlantic Canada

- Network of **community colleges** in each province
- English and French colleges in New Brunswick only
- Colleges enjoy strong links with industry – through co-op and direct industry training programs



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How Brokers and Facilitators Are Enhancing the Contribution of HEIs to Atlantic Canada

- **Encouraging Collaboration among HEIs**
 - Mechanisms such as the Maritime Provinces Higher Education Commission - regional cooperation on program delivery, accreditation, & creating awareness of policy issues related to HEIs
- **Creating HEI-business partnerships**
 - Funding for applied research focused on local industry needs/outcomes
 - HEI-industry business centres designed to foster entrepreneurship, small business support
- **Knowledge Mobilization**
 - Initiatives such as the Leslie Harris Center of Regional Policy and Development at Memorial University – dedicated to knowledge transfer designed to improve regional outcomes



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HEIs Contribute to All Aspects of Regional Development

- **Community and Cross-Cultural Development:** Coady International Institute (St. Francis Xavier University)
- **Social Development:** Transition Year Program for Indigenous Black and First Nations Students (Dalhousie University)
- **Skills Development for New Industries:** Animation and Graphics Program (New Brunswick Community College – Miramichi)
- **Research and Innovation:** C-Core – Institute focusing on resource/oceans research with applications to offshore oil and gas, other resource sectors (Memorial University)



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Increasing Efforts to Expand Research Capabilities and Leverage Technology Transfer

- Expansion over past ten years in national research programs (major granting councils), other federal programs
- Provincial engagement focused on linking research to economic development priorities
- Federal regional development agency in Atlantic Canada – Atlantic Canada Opportunities Agency (ACOA) playing an important role in funding research and technology transfer, encouraging collaboration across region



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Atlantic Canada Opportunities Agency

- The Atlantic Canada Opportunities Agency (ACOA) is a Government of Canada department whose mission is to improve Atlantic Canada's economy in partnership with the people of Atlantic Canada.
- ACOA offers a broad range of programs and services designed to create business opportunities and economic growth in Atlantic Canada.
- ACOA's key objectives are to build a stronger Atlantic Canadian economy by:
 - improving the growth and competitiveness of Atlantic enterprises;
 - helping rural communities become more economically self-reliant; and
 - influencing and coordinating national policies and investments that affect economic growth in Atlantic Canada.
- The Atlantic Investment Partnership is a 10-year initiative which began in 2001 and is worth \$1.4 billion which has the following four main components:
 - The Atlantic Innovation Fund
 - The Innovative Communities Fund
 - Trade and Investment
 - Human Capital and Skills



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ACOA Programs

Developing an innovative economy is critical to Atlantic Canada's growth and competitiveness.

- **Atlantic Innovation Fund (AIF),**
 - Competitive Request-for-Proposals process is an integral aspect of the AIF program
 - Designed to increase research and development and its commercialization.
 - Investments are being made in technology and research facilities including post-secondary institutions, other research institutes and the private sector.
 - Accelerating the region's transition to a more knowledge-based economy.
 - Within a 10-year period, the AIF will invest \$600 million in R&D projects.
- **Business Development Program (BDP)**
 - Application based process
 - Designed to help set up, expand or modernize SME businesses
 - Program offers SME's access to capital in the form of interest-free, unsecured, repayable contributions
 - Non-profit organizations (e.g. universities, community colleges, associations) providing support to the business community may also qualify for non-repayable assistance.



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Higher Educations Initiatives

- Springboard Atlantic
 - Technology Transfer/Industrial Liaison Offices
- Export Partnering Program
- Entrepreneurship Activities
 - University Business Development Centers
 - MITAC Internship Program



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Springboard Atlantic

- Atlantic universities and colleges had a combined annual research expenditure of \$250 million in 2006.
- To assist regional universities in identifying/capitalizing on commercialization opportunities at each university, ACOA has collaborated with 14 universities and other stakeholders to create and sustain a technology transfer network that supports the commercialization of university research in Atlantic Canada.
- This network of university technology transfer offices is called Springboard Atlantic.



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Springboard Atlantic

- Springboard's work is divided into four areas:
 - Network Building
 - Expanding the academic and private sector business relationship;
 - Technology Push
 - Getting existing research out from universities;
 - Industry Pull
 - Identifying areas for collaborative R&D with the private sector;
 - Training and Education
 - Developing highly qualified personnel through Springboard training and networking events.



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Springboard Atlantic

- The Springboard network helps researchers put their findings into practice by:
 - Matching up researcher discoveries with potential private sector partners;
 - Getting proper patent protection and product licensing for the technology;
 - Training researchers in unfamiliar areas such as intellectual property and business planning.
 - Providing funding to develop their concepts and protect intellectual property;
 - Proof-of-Concept Fund has a \$200,000 budget per year and will make 10 awards / year.
 - Patenting and Legal Fund has a \$120,000 budget per year and will make 12 awards / year



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Springboard Atlantic

Examples of Recent Springboard Awards include:

- In the medical field, a Dal researcher (Dr. Geoffrey Maksym) was recently awarded with proof of concept and patent funds to position a new instrument for testing asthma in children.
- In the geological/chemistry field, a St FX researcher (Dr. David Risk) was recently awarded funds to position a probe (developed at St FX) which can more accurately quantify high purity soil emissions (e.g. CO2 emissions)
- In the Agri-Food field, a Nova Scotia Agricultural College researcher (Dr. Gefu Wang-Pruski) received patent funds to protect the identified genes and proteins that are directly attributed to after-cooking darkening



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Other Agency Initiatives

- The Export Partnering Program (EPP) is an initiative designed to help small-and medium-sized businesses with little or no exporting experience to successfully enter strategic international markets.
 - Export Partnering Program
 - Partnering firms with international marketing students
 - Students research and develop a marketing plan for entry into select markets (primarily New England States)
 - Example of EPP activities
 - College and university trade students were matched with ten New Brunswick SMEs to provide trade development assistance in 2006.



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Other Agency Initiatives

- **University Business Development Centers (BDC)**
 - Objective is to increase the pool of potential entrepreneurs in the region, to provide them with the motivation to be entrepreneurs, and provide them with the opportunities to acquire the skills and information they needed to be successful entrepreneurs.
 - Results so far
 - Five centers established in Nova Scotia
 - In 2006, Saint Mary's University's BDC provided counseling, consulting and training services for over 300 business people, exposed over 600 students to the world of entrepreneurship and matched 5 faculty members with businesses.



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Other Agency Initiatives

- MITAC Internship Program
 - Program expands industry-university collaborations.
 - Introduces industry to the power of high-level mathematical and computational research, while creating new research opportunities for graduate students and Post Doctoral Fellows.
 - Has introduced industry to 61 highly qualified students from Atlantic Universities.



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Atlantic Canada

*Four provinces – one region –
a shared commitment to build a
stronger economy of Atlantic
Canada – by leveraging the full
potential of higher education*



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