



Much of Newfoundland and Labrador's population remains rural, dependent on natural resource industries, particularly the fishery

5

Managing the impacts of openness on island economies

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ABSTRACT

Small-island and remote jurisdictions are wrestling with the demands of sub-jurisdictional local and regional economic planning and development to build competitive advantage, foster cluster development, enhance human capital, and tailor key infrastructure. Simultaneously, they need to navigate national and international market conditions, political frameworks, and the diverse strategies of multinational corporations. Economic development strategies and concomitant governance structures need to combine this “looking in/looking out” capacity. At the same time, jurisdictions can often utilize their marginal status within larger jurisdictions to stretch their autonomy and jurisdictional capacity to foster economic development. Key capacities within jurisdictions can also be managed to maximize development opportunities. These include decentralization of fiscal and human resources, allocation of legal authority, fostering democratic accountability and legitimacy, matching sub-jurisdictional



mandates with appropriate geographic scale, and creating the conditions for sufficient time for strategies to have impact.

With a traditionally natural-resource-dependent economy, the Canadian province of Newfoundland and Labrador (NL) has always been exposed to global commodity prices, externally controlled corporations, and imperial and national government decision-making — making for a good case study in creating “looking in/looking out” capacity and exploiting their jurisdictional resources effectively. Efforts to decentralize decision-making, coordinate federal-provincial regulation of natural resources, and the role of the university demonstrate key mechanisms for NL — and other island and remote jurisdictions — to effectively manage their governance capacity.

INTRODUCTION

Form should follow function. This applies to design and architecture, but it also applies to local and regional development. What you are trying to achieve should determine how you organize yourself to achieve it. Strategies are what we develop to guide where we need to go and the steps we will take to get there. Organizational structures — those of private-sector firms, community-based organizations, or government agencies — should be designed to achieve our strategies.

All too often, however, we assume structures are already in place and we need to accept the advantages and limitations of what is already there. And sometimes we do. But, more often, existing structures offer room to manoeuvre. Or we need to build the adaptation of our structures into our development strategies. Organizations — private, community and public — are human constructs, and we should not assume they are immutable. There are politics to consider, and power, and history, but change does happen. Better to try to nudge it, or shape it, deliberately where we can, to achieve our objectives.

For local and regional development, linking strategies and structures requires an awareness of how national and international forces — opportunities and threats — impact plans and actions. Economic development requires exports, of goods or services, to bring new wealth into the region (unless outside governments or agencies are willing to transfer sufficient wealth to sustain the quality of life in the region). But no matter how generous the society, or how wealthy, relying on such transfers is a risky strategy, and if all regions attempt it, it clearly is not sustainable.

This chapter outlines an understanding of which strategies offer the potential of supporting exports from a locality or region, and how organizational structures can be adapted or designed to support these strategies. In both strategy and structure, connecting the local and regional with the national and international is explicitly considered. Island jurisdictions present additional opportunities and constraints in this regard. The range of actual permutations and combinations in a particular place

at a particular time are virtually limitless, but by discerning underlying tendencies or forces — theory — to inform an understanding of what to look for, a conceptual toolkit emerges. Theory, in this context at least, is an explanation of causation, and actors in a particular place at a particular time can apply these lessons to inform their actions to develop and implement regional and island development strategies and to adapt or shape appropriate organizational structures.

Finally, local and regional development leaders — in island jurisdictions and elsewhere — can inform their actions by considering how other jurisdictions have approached these issues. You cannot transfer models from one place to another, but you can apply lessons. Comparative research is about deriving lessons — or theory — from one location and considering how they can relate to place-specific factors (geography, existing strategies and structures, culture, etc.) in another.

This chapter draws from several examples of how structures in the Canadian province of Newfoundland and Labrador (NL) have been developed or adapted to advance strategies, as well as one case where structures have failed to evolve. The Regulation School of Political Economy highlighted how globalization and new technologies and approaches to production had changed the way wealth was created — what they called the Regime of Accumulation (Aglietta, 1979; Lipietz, 1987). The Regime that had developed based on the industrial revolution and the rise of mass production had gradually been matched by supportive institutions, rules, and processes — what has been called the Mode of Regulation. Now, there needs to be a new set of institutions and supports, adapted to the new Regime of Accumulation. Structures (and associated laws and processes) need to match strategies for development. NL provides some instructive lessons on successful adaptation and design, as well as some where adaptation is not happening. Useful lessons can be derived from both.

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STRATEGIES FOR LOCAL AND REGIONAL DEVELOPMENT

Subnational jurisdictions — provinces, states, counties, municipalities, etc. — all must operate within the national and international conditions and constraints they face. They seldom, if ever, have power over monetary policy or trade rules, not to mention such areas as defense and immigration, and all these can have significant impacts on local and regional development. Often, national governments have development policies and programs designed to assist subnational jurisdictions in playing a role in economic development. Unfortunately, these often fail to provide adequate

flexibility for regions with varying capacities and priorities to shape them to their needs. But good national approaches do exist and are designed to respond to the reality that one size does not fit all.

The literature on small island states and territories highlights how these jurisdictions can often utilize their marginal status within larger jurisdictions, to stretch

their autonomy and ability to utilize jurisdictional capacity to foster economic development (Bertram, 2006). Baldacchino has detailed five capacities of this creative political economy (2006). These include powers over finance (mainly banking, insurance, and taxation), environmental policy (particularly natural resources), access (particularly in relation to air and sea transportation), the free movement of persons, and para-diplomacy (such as setting up offices to represent the region in other countries or with supranational organizations).

These strategies exemplify the creative use of jurisdictional capacities that are negotiated with the larger jurisdiction, or exercised without the larger jurisdiction's blessing. More often, in the Canadian context, strategies are implemented as part of national programs or supports delivered directly in the smaller region, or through negotiated co-managed programs (Greenwood, 2010).

Some approaches in Canada are suited to cost-sharing by differing levels of government, such as infrastructure. Cost-sharing arrangements can be advanced for basic municipal infrastructure — water and sewer, roads, electrical transmission, Internet access — as well as key transportation supports such as seaports and airports. Investments in infrastructure linked to public services provide additional key supports for viable regions: schools, colleges and universities, hospitals and other health care facilities, even penitentiaries, constitute key infrastructure. These all generate employment in construction and staffing for service provision and maintenance. Where funding is provided by national governments or supranational bodies for service provision and ongoing maintenance, these represent significant infusions of funds to communities and regions.

The presence of schools, colleges, and universities also represents what is perhaps the most important requirement for development: people with skills and training to work in private, public, and community-based enterprises. The greater this human capacity, the more likely development takes off. Entrepreneurship and enterprise creation, quality public services, and dynamic civic organizations enable innovation and resilience (Alexander, 1983; Lyons & Reimer, 2009). Richard Florida suggested that highly skilled professionals, artists, and other members of the “creative class” are the key driver of the economy. He and others who adopt his approach

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suggest that cities which have the quality of life and tolerance for diversity these workers seek will be magnets for in-migration, innovation and economic development (Florida, 2002; 2005; 2008). Florida’s work has been critiqued by many studies indicating that having jobs demanding workers is still the key factor in motivating in-migration of skilled workers, although amenities and quality of life no doubt play an important role (Storper & Manville, 2006).

Attracting external investment and developing local strategies need to be linked (See Figure 5.1) through the physical and human capital in a region. Many sub-national jurisdictions offer tax incentives, grants, and subsidies to attract existing firms to relocate to their area, or to start up operations there (Greenwood, 1998; Savoie, 1992). Many scholars are skeptical of this approach, described as “smokestack chasing,” yet most jurisdictions participate in it. A whole profession of site selectors has emerged from this activity, and communities and regions create community profiles on their websites to entice firms to consider their area (Douglas, 2003; Polèse et al., 2002).

Supports for entrepreneurship and new firm creation can complement or compete with inward investment. Programs exist to help children in schools get exposure to creating their own businesses, colleges and universities support entrepreneurship education, and new firm incubators and accelerators provide infrastructure, funding,

FIGURE 5.1: Linking regional strategies with external opportunities



Source: Task Force, 1994, p. 102

and mentoring for start-ups. Other programs provide funding assistance for new and existing firms; and programs such as Business Retention and Expansion involve economic development staff or volunteers visiting existing firms to identify ways by which local development organizations can assist with infrastructure, transportation, human resources, or other requirements. In the process, a database is created

to identify issues and requirements encountered by numerous firms, so that the appropriate agencies can be engaged to attempt to address them (Greenwood, 2010).

In the face of global competition and constantly changing technologies, innovation has become a central focus at all levels of development planning. While national governments focus on investments in fundamental science as well as applied research and technology adaptation, most scholars now recognize that innovation requires on-the-ground interactions between firms in a region, where frequent interaction between buyers and suppliers generates demands for new products and processes. This user-producer interaction occurs up and down the supply chain, and out-

sourcing globally creates opportunities for regions while also producing incentives for clusters of certain activities in various regions. These clusters can be high-technology innovation clusters, as typified by Silicon Valley, or they can focus on innovation in aspects of the production process, which recent work claims is the competitive advantage of Chinese regions (Breznitz & Murphree, 2011; Wolfe & Gertler, 2016).

The “quadruple helix” has been coined as a useful analogy for the interactions required in a region to maximize innovation. Like the helix in DNA, this emphasizes that innovation is not the product of some linear process flowing from discoveries in the lab, through product development and then commercialization, but rather involves ongoing interaction of the four elements in the helix within a region: businesses, post-secondary institutions, governments, and community organizations. Local and regional organizations such as industry associations, development agencies of governments, and university outreach organizations can play a broker or facilitator role in these interactions (Cooke & Morgan, 1998; Leydesdorff, 2012).

A simple framework to inform what a developed economy looks like is to consider them through their industrial and sectoral linkages. Developed by the Canadian Staples School of political economy, this approach was adapted by Albert O. Hirschman, who won a Nobel Prize in his application of the concept to developing countries. As originally conceived by Harold Innis, the Staples Thesis suggests that

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economies based on natural resource extraction need to capture backward and forward linkages if they are to escape the “Staples Trap.” Staples consist of such relatively unprocessed natural resources as fish, lumber, and minerals. Backward linkages consist of the production of goods and services used in the extraction of the staple, such as building the boats and designing the gear for the fishing industry. Forward linkages are value-added products produced with the raw material, such as producing microwave-ready fish products for the retail market. The more backward and forward linkages captured, the more jobs in the economy and the more taxes governments can extract, and then reinvest in better infrastructure, training, and the like. It becomes a virtuous circle, as compared to the vicious circle of the Staples Trap, where no linkages are captured, limiting the ability to invest to create regional competitive advantage (Watkins, 1989).

Michael Porter’s concept of upstream and downstream linkages is essentially the same concept, although it extends beyond the focus on natural resources. Upstream and downstream linkages highlight the significance of the supply chain and opportunities for buyers and suppliers to cluster where proximity contributes to competitiveness (Porter, 2000). The European Union concept of Smart Specialization is one of the latest articulations of development strategy focusing on regional specialization, innovation, and linkages between and among firms (Hall et al., 2014).

The John Cabot monument
near Bonavista, NL



The focus on clusters, and the broader regional innovation literature, is consistent with long-standing approaches to community economic and regional development. The Organization for Economic Cooperation and Development (OECD) has highlighted the Canadian Community Futures Program as a best practice in community and regional development. Regionally based boards of business people, municipal leaders, and other local representatives form the basis of regional development boards which, supported by professional staff who report to the board, lead the development of a strategic development plan for the region, conduct a SWOT analysis for the region (i.e., regional Strengths and Weaknesses combined with external Opportunities and Threats), consult with local citizens and stakeholders, and set strategic priorities for the region (Freshwater & Ehrensaft, 1994; OECD, 2006). These can relate to priority sectors and related infrastructure, human resource development, and business supports. Unfortunately, these boards are mandated as rural development organizations and exclude neighbouring urban centres. Provincial government development agencies also see these as federally supported boards and seldom co-ordinate their efforts with them. Finally, the mandate for rural development means that most efforts to develop international markets, foreign investment, and innovation policy are advanced with little or no recognition of regional strategic plans (Greenwood, 2010; House, 1999).



The rugged coastline of Newfoundland and Labrador

Indeed, most provincial governments in Canada have rural and regional development programs in one department (if they have them at all) and international trade, investment attraction, and innovation in another. As a result, while most observers call for economic development in the global economy to “think global and act local,” they are structured in a way that inhibits linking regional priority-setting with external marketing and partnerships. This fails to recognize the fact that competitive advantage in the global economy is forged in regions, and that innovative regions need to combine “local buzz” with “global pipelines” (Bathelts et al., 2004).

Beyond the federal-provincial division of powers, perhaps a more pervasive challenge for Canadian provinces to maximize their international strategic opportunities, with the exception of the smallest — Prince Edward Island — is geography.

Baldacchino explored the significance of the hinterland in influencing small-island development strategies (2006). For larger jurisdictions, the existence of the hinterland — large territories with dispersed populations (providing a market for the metropole) and with land for agriculture or natural resource endowments (fish, forest, mines) — provided a material and perceived catchment for development within the jurisdiction. For small-island jurisdictions, there is no choice but to look outward: they “must exhibit a generous degree of openness and integration with the outside world in order to survive” (Baldacchino, 2006, p. 47). For Canada as a country,

and its massive provinces (including the island of Newfoundland with its own northern, mainland hinterland, Labrador), markets for primary resource exports — often unprocessed commodities — were global, but strategies to develop them were more often than not subject to the “staples trap” (Watkins, 1989).

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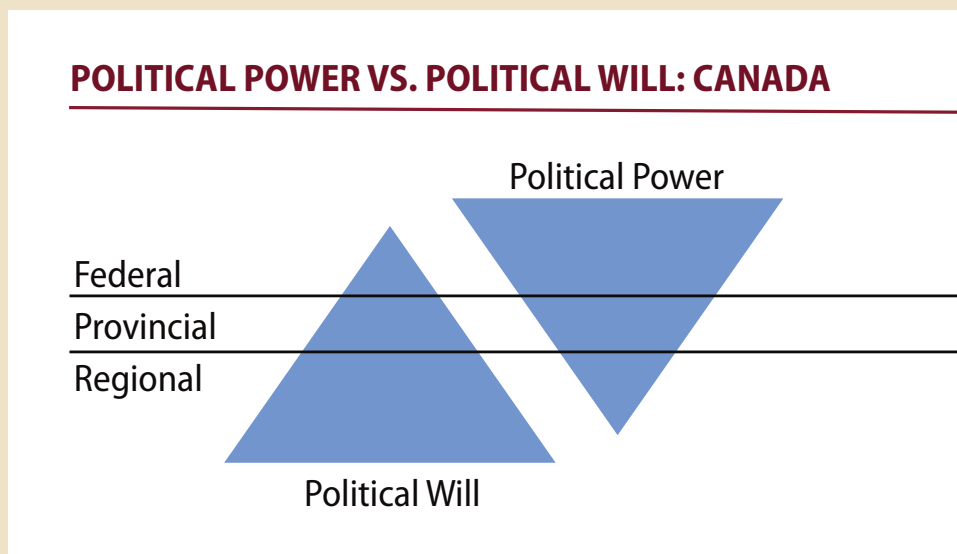


ORGANIZATIONAL STRUCTURES FOR LOCAL AND REGIONAL DEVELOPMENT

Research on island and semi-autonomous jurisdictions has revealed that subnational jurisdictions often have more organizational capacity than they realize. Confident leaders are often able to stretch their jurisdictional authority by creatively exploiting their small-scale status (Baldacchino, 2006). Canadian provinces have significant capacity under the Canadian federal system, although local and regional government has no designated authority under the Canadian constitution. The OECD observed that Canadian municipalities are the weakest form of local government amongst OECD member countries (Douglas, 2006; OECD, 2002). Denzil Doyle provided a very useful diagram to demonstrate the mismatch of political power in Canada with the will to forge regional innovation systems (Figure 5.2) (cited in Greenwood, 1999). The greatest legal authority under the constitution, and the most taxation powers, reside with the federal government. This is less so, but still significant for the provinces, and at the sub-provincial level there is very little capacity. Indeed, under the Canadian constitution, local government is a “creature” of the provinces.

On the other hand, as demonstrated by Doyle’s diagram, the will to work on behalf of your community is greatest in that community, so that you and your family will have jobs and a high quality of life. For neighbouring communities within a single labour market area or functional economic region, there can be common cause

FIGURE 5.2: Political power vs. political will: Canada



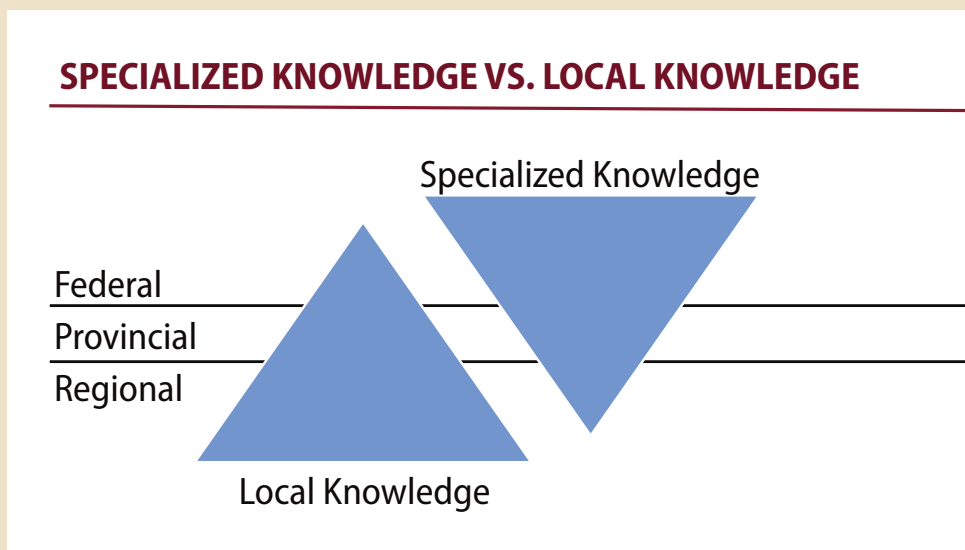
Source: Greenwood, 1999.

as all can see the potential to share in the benefits for their efforts to develop the regional economy. In all but the smallest Canadian province, Prince Edward Island, the geography is too large to allow the provincial government to adequately represent locality-level interests. The federal government is much further removed. Therefore, in Canada, the level where the will is greatest to make the commitment and put in the work to develop the economy, there are the least resources. In Nordic countries, which are unitary states, there is no equivalent of provincial governments. Local governments, however, which take in a number of communities in a locality-size area, are quite powerful (compared to Canadian municipalities). They even collect income tax. Doyle's diagram adapted for Nordic countries would look more like an hourglass than a triangle.

There are still important roles in economic development on which the federal and provincial governments in Canada should take the lead. Monetary policy, international trade agreements, and a host of environmental and regulatory roles make sense at a larger spatial scale. The second set of triangles, adapted by the author from Doyle's model, represents the benefit of higher levels of government for some specialized functions, while local and regional authorities have greater local knowledge (Figure 5.3).

The European Union concept of subsidiarity captures this approach. Under subsidiarity, responsibility for functions should only go to Brussels if it cannot be done

FIGURE 5.3: **Specialized knowledge vs. local knowledge**



Source: Greenwood, 2017.

better at the national level. And it should only be done at the national level if it cannot be done better at the regional level. It can be debated how well this concept has been realized by the EU, but as an organizing concept it is the exact opposite of how the Canadian constitution was designed (Barnett, 1997; Douglas & O’Keeffe, 2009). In 1867, for a developing country opening up the western provinces, with a weak welfare state and no conception of regional production systems and global supply chains, it made sense. Again, the mode of regulation needs to evolve to match the regime of accumulation.

THE CHECKLIST BELOW PROVIDES A USEFUL REFERENCE FOR ANY JURISDICTION TO ASSESS THE CAPACITIES IT POSSESSES TO ADVANCE REGIONAL DEVELOPMENT (Greenwood, 1999):

- 1) **FISCAL RESOURCES:** Where does the funding come from for the organization to pay its staff and carry out its functions? If funding comes from higher orders of government or from international organizations, what conditions are placed on it? Normally, the level of government that generates funds and then distributes them places conditions on the use of those funds. On the other hand, if the local or regional authority has sufficient taxation powers, or other sources of revenue independent from higher orders of government, that gives it independent fiscal capacity to advance priorities in areas of its jurisdiction (or where it can stretch its jurisdiction).
- 2) **HUMAN RESOURCES:** This consists of three elements:
 - i. **Leadership:** Is there leadership able to forge a shared vision, facilitate networks, and utilize existing authority creatively to realize goals?
 - ii. **Skilled staff:** Does the organization have paid staff with the training and skills needed to support decision-making and carry out actions?
 - iii. **Community participation:** For many initiatives, having the community on side, or at least well informed, is key to success. It can also be a means to enlist volunteers or support from community organizations where appropriate.
- 3) **LEGAL AUTHORITY:** Many community-based or voluntary organizations play an active role in local and regional development, but only those with legal authority to act in certain areas have the ability to claim responsibility in certain activities. As weak as Canadian municipalities are, they are a level of the state, with ultimate recourse to the legitimate use of force in areas of their responsibility.

A further useful concept in this regard is the political science concept of deconcentration versus decentralization. The former is when higher levels of government place staff at the local, regional, or provincial level. This is better than all the federal public servants in Canada being based in Ottawa, but in almost all cases these staff still report to superiors in Ottawa, and in all cases they report to Ministers and the Prime Minister who must take a national perspective. Decentralization is when functions and accountability are devolved to the subnational level (Smith, 1985).

This checklist, below, can be adapted to any national or regional context. These

- 4) **DEMOCRATIC ACCOUNTABILITY / LEGITIMACY:** The reason local or regional state bodies are able to claim responsibility in a democratic political culture is because they are elected. Some other organizations may not have formal authority, but if they have democratic legitimacy, or legitimacy derived from delivering valued programs or services, they can claim to speak for a community or interest within it (such as a chamber of commerce, or a labour union).
- 5) **GEOGRAPHY:** Consistent with the concept that form should follow function, the size of the region for which an organization is responsible should match its mandate. Individual municipalities in Canada are usually much smaller than the labour market area, making them less appropriate to manage economic development activities. For regional planning, an area larger than the locality may be appropriate. Networks of roads, bridges, tunnels, and air connections all impact the size and functions appropriate for local and regional development.
- 6) **TIME:** Having an impact on regional competitive advantage takes time — usually years, or even decades. Training a specialized labour force, fostering innovation and entrepreneurship, planning and building infrastructure, and developing trade relationships all take sustained investment, planning, and co-ordination. All too often, however, where elected politicians are seeking re-election, they need to show results in three or four years, and this incentivizes them to prioritize short-term initiatives. Often, any action that can be highlighted as progress to appeal to voters will be taken, even if less obvious but more impactful measures would make a greater contribution to long-term competitiveness. There are approaches that can mitigate this tendency, such as developing strategies in partnership with different levels of government, or with business and labour, or with non-governmental organizations or community groups. If one partner tries to change priorities mid-stream, or take short-term but less impactful measures, the other partners can attempt to keep the strategy on course. The Irish partnership model and national and local corporatism all provide measures to foster long-term commitments, with citizens and economic stakeholders empowered to enhance continuity of policy (Baldacchino, 2005; Greenwood, 1991; House, 1999; Mackintosh & Wainwright, 1987).

are essentially generalizable factors that will impact the effectiveness of any organizational structure in supporting local and regional development. The factors need to be considered in light of place-specific characteristics, such as political culture, democratic traditions, available resources, and the natural and human preconditions that allow development strategies to be shaped and implemented in the first place. By being deliberate and intentional in considering these generalizable and contingent factors, and how they relate in a particular time and a particular place, the chances of success in regional development will be enhanced.

For islands, the creative approach to governance highlighted by Bertram, Baldacchino, and others can take this checklist into account. For a sovereign state such as Iceland, the Nordic traditions of strong democratic governance, significant decentralization to local government, and engaged citizens overlays a relatively large island, with dispersed population, remote from markets. Greenland presents significant contrasts. As we will see below, Newfoundland, discussed in comparison with these and other North Atlantic Rim jurisdictions elsewhere (Baldacchino & Milne, 2000; Baldacchino et al., 2009), presents illustrations of success and failure in the tailoring of governance structures for economic development.

NEWFOUNDLAND AND LABRADOR: EXAMPLES OF SUCCESS AND FAILURE

The Canadian province of Newfoundland and Labrador (NL) provides instructive examples of how strategy and structure impact economic development. NL was the first British colony and last province to join the Canadian confederation. Poor governance and war debt resulted in the island of Newfoundland and the northern mainland section, Labrador, losing Dominion status as a member of the British Commonwealth. The British government established a Commission of Government in 1934 when the Great Depression hit NL's fish exports and the elected government was suspended by agreement, in return for Britain paying the debt. In 1949, after two referenda, the people of NL narrowly voted in favour of joining Canada.

Weak democratic traditions in NL were further embodied in the late development of municipal government in the province. Remote and sparsely populated fishing communities looked to the Church and merchants for leadership, and the distant legislature in the capital city of St. John's only took on meaningful leadership after Confederation with the largesse of the Canadian welfare state to mitigate the poverty of most fishing families. Over time, the fishery was supplemented by forestry, two paper mills, and various mines. What small-scale manufacturing that had developed in NL prior to Confederation diminished significantly with the removal of NL's tariffs. Confederation brought enormous investments in health care and education (including the creation of Memorial University); a road network replaced the sea as the

primary means of transport between communities; and a ferry link connected the island to the mainland of Canada. Air transport had been well-established in NL due to its strategic location as the easternmost point in North America, and the new province's first Premier, Joey Smallwood, led an intensive modernization campaign, supporting large-scale diversification efforts. A third paper mill, an oil refinery, numerous manufacturing plants with equipment imported from decommissioned plants in Europe, and the massive Churchill Falls hydroelectric project in Labrador were all launched with great fanfare by the charismatic and domineering Premier (Alexander, 1983; Brox, 1972; Government of NL, 1986).

While Premier Smallwood downplayed the importance of the fishery, it continued as the backbone of the rural economy. Primarily seasonal, due to the nature of the fish stocks and weather and ice conditions in the North Atlantic, employment in the fishery was soon supplemented by the Canadian Unemployment Insurance system. Inshore and offshore fishermen, and the men and women who worked in fish processing plants, were successfully organized in a labour union led — in perhaps an ironic twist — by a priest and the son of a merchant. The extension of Canada's territorial waters led to a massive expansion in the number of fishermen, and combined



with improved technologies and weak enforcement of domestic and foreign overfishing, groundfish stocks — and, in particular, the all-important cod fish — plummeted in numbers. Under the federal division of powers, management of fish stocks — setting quotas — was federal, but licensing of harvesting and processing was provincial. The provincial government, much more susceptible to the power of fish companies and the Fishermen’s Union to extract concessions for short-term electoral gain, granted more and more harvesting and processing licences, and pressured the federal government to increase quotas. Simultaneously, the provincial government funded short-term “make-work” projects to provide fishery and other seasonal workers with sufficient weeks of employment to qualify for federally funded Unemployment Insurance. If workers did not qualify with the minimum number of weeks worked for Unemployment Insurance, and had to receive Social Assistance payments, they were the responsibility of the provincial government. So a complex web of dysfunctional disincentives evolved around the fishery, with the provincial government using its jurisdictional authority creatively to minimize their expenditures and maximize their political credit (Felt & Locke, 1995; Government of NL, 1986).

Unfortunately, this creativity did not generate economic productivity and innovation. Instead, it impeded entrepreneurship, expanded the number of seasonal workers dependent on the fishery, and led to chronic overfishing. And then the bubble burst. Catches dropped precipitously and in the early 1990s the federal government announced a moratorium in the groundfish fishery. Fortunately, for some families and communities, other species benefitted from the drop in cod — in particular, crab and shrimp — and these high-value species boomed, but were concentrated in far fewer hands. Rural Newfoundland suffered the largest lay-off in Canadian history, and while generous federal compensation, retraining, and mobility programs mitigated the effects, people migrated from rural communities to urban centres in NL and elsewhere in Canada (Felt & Locke, 1995).

While the fishery demonstrated the negative impacts of divided jurisdiction and short-term political decision-making, NL had a very different experience with a brand-new resource industry: oil and gas. Joey Smallwood had held onto power from 1949 to 1972, largely on the strength of rural NL voters’ appreciation of the benefits that the Canadian welfare state brought (joining Confederation had been championed by Smallwood). As graduates of Memorial University — higher education had also been championed by Premier Smallwood — moved into positions of influence in the province, the “Father of Confederation’s” dominance on politics in the province was increasingly challenged. Frank Moores (another son of a merchant; Smallwood had been a journalist upstart who dabbled in socialism before he became Premier) replaced Smallwood as Premier in 1972. Memorial Economic Historian David Alexander wrote in the 1970s that NL’s underdevelopment was primarily due to low literacy in the fishing colony. This contributed to lack of entrepreneurship and

innovation, but, most importantly, Alexander argued, it fostered an unwarranted deference to authority by the province's population, hindering the development of democratic efficacy. Only as graduates of Memorial populated the growing welfare state and emerging service sector did traditional authority come into question (Alexander, 1983).

When the Hibernia oil field was discovered on the Grand Banks of Newfoundland in 1979, NL society was already experiencing a revolution due to the University's recognition of the unique island and northern culture and society. Music, comedy, theatre, and literature were all celebrating the unique history of the young province, and the Minister responsible for resource development in the Frank Moores cabinet, Brian Peckford, was determined to develop the new oil industry in a way that maximized benefits for the province. He assembled a team of public servants and political aids who set out to learn how Norway and Scotland had developed their oil and gas industries. He recognized the opportunity to use the province's history and jurisdictional authority to introduce regulations requiring multinational oil companies to respect provincial development priorities. Under the Canadian constitution, offshore oil development would be governed by the federal government, unlike on-land oil fields in Alberta which were making the western province rich. When Peckford brought in NL oil regulations in spite of the federal authority, the oil companies threatened to pull out unless the upstart province backed down. Peckford convinced the Premier and cabinet to stay the course and six months later the companies came back, on NL's terms. It would take a failed Supreme Court challenge and a political agreement with a new federal government in 1985 — Peckford replaced Moores as Premier in 1979 — to enshrine the NL status in the Atlantic Accord, but the successful stand against the federal government and the big oil companies fueled an outburst of NL nationalism and pride. A decline in oil prices delayed development of the field until 1986, and only in the 1990s, when oil prices climbed steadily, did the province reap the full benefits of an oil economy (Dunne, 2005; Greenwood, 1991; House, 1983; Peckford, 1983; Stantec, 2009).

A key element of the Atlantic Accord was a unique jurisdictional compromise: the creation of the Canada–NL Offshore Petroleum Board (CNLOPB). With equal numbers of members appointed by the federal and provincial governments, respectively, and an independent Chair appointed by mutual agreement, the CNLOPB

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would review and approve oil field exploration, development, and safety regulations (Carter, 2007). The sinking of the *Ocean Ranger* oil rig in 1982, with the loss of all 84 crew members, raised the safety challenges of drilling in the extreme conditions on the Grand Banks. The CNLOPB also enforced requirements for oil companies to fulfill benefits agreements, including a requirement to invest a percentage of revenues based on a formula, on research and development, and education and training in NL. Court cases continue by the companies involved in the original Hibernia development, which pre-dated these regulations, but in 2009 the total of this requirement was estimated at over \$800 million CAD in the province (Locke, 2009). In 2015, \$61.6 million CAD was allocated: \$52.2 to research and development and \$9.4 to education and training (CNLOPB, 2017) — much of it building world-leading expertise at Memorial in Cold Ocean and Arctic Science, Technology and Society, which the University has branded as COASTS (MUN, 2017).

Peckford's leadership, rooted in the complex web of factors supporting the emergence of NL pride and nationalism, provided the impetus to demand a new approach to resource development. Lessons were learned from elsewhere and new organizational structures were developed to implement development strategy — in the midst of constant and continuing political and industrial struggle. The capital city region of St. John's has seen enormous development in the last 20 years, and significant success has been achieved in capturing upstream and downstream linkages from the oil development. An ocean technology cluster has emerged, with significant federal and provincial government investment in specialized infrastructure, and a broad range of local, national, and international supply and service companies (Doloreux & Shearmur, 2009; Greenwood & Hall, 2016; Lepawsky, 2009; Lepawsky et al., 2010; Shearmur, 2010).

Unfortunately, these successes have not made NL immune from the boom and bust resulting from reliance on international commodities and their global market price swings. When oil prices plummeted from their \$100+ levels, a surging economy was stopped in its tracks. Oil companies slowed down or stopped exploration, fields in operation reduced spending to a minimum, and the windfall of revenues the provincial government was reaping dried up. The provincial government had expanded during the boom, investing in new infrastructure and services province-wide and, as with the boom that preceded the global financial crisis — and so many booms before it — a spirit of irrational exuberance had taken hold of the government and the population. Combined with the problems in the fishery, a downturn in mining, and collapsing markets in the paper industry, rural NL has seen decades of out-migration. Long-distance commuting to major construction projects related to oil, mining, and hydroelectric development in the province and across the country mitigated local economic challenges in rural areas, as workers maintained their homes in rural areas and spent large incomes on housing and goods and services in regional

service centres. A major hydroelectric project launched by Premier Danny Williams, Muskrat Falls in Labrador, is over budget by billions of dollars and the confidence gained over two decades is being tested in the extreme.

LOOKING WITHIN, AS WELL AS LOOKING OUTSIDE

NL provides telling insights on the interplay of strategy and structure, the generalizable and the contingent. A compelling element of NL's history and political culture is the lack of local democratic efficacy. While leaders like Brian Peckford utilized NL's provincial status creatively, and adopted lessons from elsewhere, little has been done in the province to build capacity for strategies and structures at the sub-provincial level. Yet, as noted above, geography matters in local and regional development, and regional labour markets require decision-making and capacity at the locality level. The NL experience, in comparison with other jurisdictions around the North Atlantic Rim, has not been positive in this regard: too much power is concentrated at the federal and provincial levels; and almost none is allocated at the locality level (Baldacchino et al., 2009).

Globalization is presenting new challenges and opportunities in this regard. The innovation literature highlights the importance of “local buzz” and “global pipelines.” Building competitive advantage with industry, government, post-secondary institutions, and communities interacting — the “quadruple helix” — demands capacity at the locality level. Natural resource extraction can continue in rural and remote areas through fishing activities, mines, forestry, and agriculture with little effort to capture upstream and downstream linkages locally. Unless workers in these industries are primarily a commute workforce, however, viable communities demand adequate services and support industries. Without local organizational structures, providing capacity for local leadership, supported by skilled staff with adequate resources and authority to work on behalf of the community or region, little is likely to be achieved in regional development. Without the jurisdictional capacity endowed by having a provincial government in a federal system, Brian Peckford would not have been able to leverage the additional powers of the Atlantic Accord. Sub-provincial regions are the same and other OECD countries possess a wide range of sub-jurisdiction structures to enable the will to develop local and regional economies to be expressed. The wide range of small-island jurisdictions and semi-autonomous regions worldwide provide even more examples — and lessons — on how to harness structures to advance strategies.

Without ideas on what to do with structures, of course, little will result. Strategy

BUILDING COMPETITIVE advantage with industry, government, post-secondary institutions, and communities interacting — the “quadruple helix” — demands capacity at the locality level.

is about deliberate consideration of options; and to advance a shared vision. This is where post-secondary institutions need to shed the mantle of the Ivory Tower. Just as the first graduates of Memorial fueled a political and cultural revolution in NL, universities must play an active — not passive — role in the quadruple helix. The OECD has conducted major studies of the role of higher education institutions in regional development (OECD, 2007). The literature on clusters highlights the centrality of universities in providing the highly qualified graduates, the locally rooted interactions of research and development, and the “global pipelines” that help connect the cluster with knowledge and networks beyond the region. Increasingly, universities are developing community and public engagement as a fourth mission, along with teaching, learning, and research, to foster faculty and student partnerships with industry, community, and government organizations.

Memorial is the only university in Canada with a Senate-approved public engagement framework: a governing document of the University, alongside Teaching and Learning and Research Frameworks. Recent reports have highlighted how Memorial, as the province’s only university, attempts to deliver on its “special obligation” to the people of the province. The Marine Institute and C-CORE are unique institutions in the country, connecting university-applied research and teaching with the needs of industry (Warrian & Wolfe, 2016, 2017). The Leslie Harris Centre of Regional Policy and Development (The Harris Centre) has a mandate to facilitate and co-ordinate the University’s activities in regional policy and development. It supports all Memorial campuses and faculties, and tools like Yaffle (www.memorial/yaffle) provide platforms to broker connections with external partners. Numerous other centres, structures, and programs have been established to foster the human capital, the ideas, and the connections to inform future strategies and the evolution of future structures.

Finally, universities are just one of the vehicles to connect industry, government, and civil society with external knowledge and networks. The Internet is reshaping how people communicate, consume, and think. Businesses, industry associations, municipalities, and every other human organization are adapting and innovating ways to access knowledge and networks, while also becoming susceptible to isolation and disinformation. New strategies are evolving and new structures, processes, and networks are emerging. Islands and northern regions are facing emergent challenges through globalization, climate change, and mass culture. They also continue to possess the identity that insularity can forge, and with creative strategies and deliberate adaptation of organizational structures — at the jurisdictional and local levels — new futures can be generated.

In his analysis of islands and island development, Bertram used the analogy of a kaleidoscope to describe how the multiple factors that combine in time and place represent a degree of path dependence, as the elements already present are rearranged to present a new reality. There are multiple possible equilibria coexisting

in one location, and governments can reinforce existing patterns or “trigger a switch to another mode of articulation with the global system” (Bertram, 2006, p. 11). In words that might lend some comfort to jurisdictions such as Newfoundland and Labrador, and others facing the ponderous implications of their local realities as they intersect with external forces — opportunities and threats — Bertram writes (p. 12):

Islands researchers should therefore cultivate (i) openness to the new and unexpected; (ii) demystification of the concept of sustainability, whose opposite is not the bogey of “unsustainability,” but simply transition to a new and different equilibrium; and (iii) awareness that change within a given steady state is seldom dramatic or extreme — but that once positive feedback operates and cumulative network externalities start to drive the transition to a new pole, some islands may make quite sharp transitions.

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