
Innovation Policy and Regional Development in Canada

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PROGRIS

Limits of Industrial Policy in Canada

- Failure of Industrial Policy, 1970s to 1980s
 - Adaptive and defensive more than innovative
 - Industry and Labour Adjustment Board
 - Canadian Industrial Renewal Board
 - Individual bailouts – Chrysler, Maislin, Massey-Ferguson
 - Tier I and Tier II Consultations – late 1970s
 - Great expectations – few results
 - Megaprojects strategy – early 1980s
 - Linked to major projects for energy infrastructure
 - Sidelined in Cabinet
 - Macdonald Royal Commission Report, 1985
 - In a small open economy, industrial policy and trade policy are synonymous – FTA, CUFTA

Schumpeterian Dynamics in a Small Open Economy

- Innovative activities of firms in knowledge-intensive industries concentrated in home country
 - Growth of global production networks
- Small open economies face structural disadvantage from the perspective of Schumpeterian competition
 - Small local firms perform lower levels of R&D and face greater barriers to entry in Schumpeterian industries
 - Not optimal industrial structure for Schumpeterian competition where smaller markets represent entry barrier
 - Focus on industries where innovative products are key feature
 - Justifies targeted support for firms in these industries
- Never fully adopted by Canadian governments

From Industrial to Innovation Policy

- Federal Programs – Innovative & Adaptive
 - DIPP, TPC and Program for Strategic Industrial Projects
 - Industrial and Regional Benefits Policy
 - Regional Development Agencies
 - Subsidy and loan programs
 - National Research Council
 - Industrial Research Assistance Program
 - Cluster Initiatives
 - Science and Research Policy
 - Scientific Research Tax Credit
 - Centres of Excellence, Canada Research Chairs,
 - Granting Councils - CIHR, NSERC, SSHRC, CFI

From the National to the Regional

- Focus shifts from the national to the regional level:
 - Recognition that spatial proximity facilitates the sharing of tacit knowledge and capacity for localized learning;
 - Firms clustered in a region share a common regional culture that facilitates learning;
 - Localized learning is supported by a common set of regional institutions
- Regional Innovation System:
 - “The set of economic, political and institutional relationships occurring in a given geographic area which generates a collective learning process leading to the rapid diffusion of knowledge and best practice”

Three Waves of Regional Development Policies

- First Wave: 1960s and 1970s
 - Focus on lagging rural regions and urban areas targeted as potential growth poles
 - Top down and centralized form of delivery
 - Lack of integration with provincial policies
- Department of Regional Economic Expansion (DREE)
 - Established to coordinate federal sectoral programs and negotiate development agreements with provinces
 - Led to new approach
 - Intergovernmental agreements to establish priorities and decentralized administration responds to local conditions

Second Wave of Regional Development Policies

- Second Wave: 1980s and 1990s
 - Shift in focus to developing capacities and seizing opportunities
- DREE replaced by Regional Development Agencies
 - Atlantic Canada (ACOA)
 - Western Canada (WED)
 - Quebec (CEDQ)
 - Northern Ontario (FedNor)
 - Federal-provincial agreements with tighter focus on regional and local priorities
 - Focus on longer term industrial restructuring and economic adjustment – facilitating partnerships

Third Wave of Regional Development Policies

- Third Wave: 2000s to present
 - Trend away from direct assistance to individual business and towards investments in infrastructures for innovation and to diversify regional economies
 - Funding research studies or cluster opportunities
 - Atlantic Innovation Fund (ACOA)
 - R&D networks to support critical mass of firms and support commercialization in clusters with comparative advantage
 - Economic Diversification (WED)
 - Major projects that support innovation, entrepreneurship and community economic development
 - IDEA-SME (CEDQ)
 - Supports intermediary organizations and networks for SMEs in emerging knowledge based networks seeking global competitiveness

Three Waves of Provincial Development Strategies

- First wave (1950s – 1970s)
 - Firm attraction based on cost subsidies
 - “Smoke-stack chasing”
- Second Wave (1980s)
 - Expand research infrastructure
 - Upgrade training and education capacity
 - Fill gaps in financing, support for SME’s, tech transfer
- Third Wave (1990s -)
 - Works collaboratively with public and private sector
 - Responds to demand from private or joint public/private initiatives
 - Leverages resources and recruits non-public sources of knowledge

Second Wave: Provincial Industrial Policy

- Provincial Initiatives – 1980s and 1990s
 - Ontario Premier's Council Reports – late 1980s
 - "Competing in the Global Economy"
 - "Industrial Policy Framework" – 1992
 - Emphasis on sectors – Sector Partnership Fund
- Quebec – early 1990s
 - Industrial Atlas of Quebec
 - Influence of Porter
 - provincial economy as twelve industrial clusters
- Parallel initiatives in BC, Sask, Nova Scotia
- Lack of integration with federal strategy

Third Wave:

Regional Innovation Systems

- Consists of the infrastructure of R&D institutions in the region
 - Internal and external networks of relationships between public R&D institutions and private actors
- RIS includes both supply and demand side of the process
 - Supply side includes research institutions that create new knowledge
 - Demand side includes the private firms that absorb and use scientific and technological knowledge
- Innovation support organizations bridge the gap
 - Technology brokers and technology transfer centres
 - Organizations in the PSE sector to facilitate knowledge transfer
 - Venture capital firms

Ontario Initiatives, 1990s-2000s

- Ontario Government key initiatives
 - Ontario Research and Development Challenge Fund
 - Ontario Innovation Trust
 - Ontario Research Fund
 - Focused support for key sectors
 - Support for venture capital initiatives
- Targeted Ontario Policies
 - Sector strategies, 1992-1996
 - Office of Urban Economic Development
 - Support for Toronto, Ottawa cluster strategies
 - Biotechnology Cluster Innovation Program (BCIP)
 - Regional Innovation Networks/Ontario Network of Excellence/Entrepreneurs

Current Ontario Policy Framework

- Ontario Research Fund
 - Funds project operating costs (through The Research Excellence Program and the Ontario Research Fund) and new research infrastructure, such as lab equipment (through the Research Infrastructure program)
- Ontario Commercialization and Innovation Network
 - Support 17 regional innovation centres across the province to assist entrepreneurs in commercializing research, starting and growing their companies
- Ontario Centres of Excellence
 - Bridges gap between academia and industry to help turn science and technology into successful business endeavours.
- Ontario Growth Development Corporation
 - Creates two separate VC funds, one on basis of fund of funds principle, second matches investments from other VC funds in eligible corporations

Newest RDA: FedDev Ontario

- Established in 2009 to respond to Ontario's major economic challenges
 - Investing in Business Innovation: boosts private sector investment in start-up businesses to accelerate the development of new products, processes and practices and bring them to market
 - Prosperity Initiative: Supports businesses, not-for-profit organizations and post-secondary institutions in undertaking projects to enhance productivity, diversify the regional economy, and build a competitive advantage for southern Ontario.
 - Technology Development Program: Supports research and innovation organizations, the private sector, post-secondary institutions to accelerate development of advanced technologies that will result in new market opportunities for southern Ontario businesses.

Key Challenges for Research & Innovation in Canada

- Challenges for Canada
 - Greater number of SMEs – slower uptake of university research and less likely to partner on research projects
 - Firms focused on incremental improvements need technical advice
 - Canada & Ontario score low on innovation scorecards & BERD expenditures
- Implications for research & innovation policy
 - Limitations of a supply push (linear) model for knowledge transfer
 - SMEs need access to problem solving capabilities of PSE institutions
- Need to build on success models
 - Build on & expand role of IRAP – integrate with provincial post-secondary system
 - Expand role of community colleges in incremental innovation
 - Better integration of federal, regional and provincial initiative