



Towards a More Resilient Innovation Cluster

Niagara's Agribusiness Sector

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Core themes for mapping Niagara's Agri-food Cluster

- Technological change, innovation, and the future of agriculture
- Industry 4.0 (smart/precision processes, automation and robotics adoption, logistics and supply chain) and the implications for agribusiness (and its connection with other sectors)
- The role of postsecondary institutions and research centres
- External linkages (supply chains, mega-regional & binational clusters)
- Governance at multiple scales (streamlined regulations, policy advocacy, & cluster strategy)

What are clusters?



- "...geographic spaces with concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, associated institutions... in particular fields that compete but also *cooperate*" (Porter 1998, 197).

What roles do Agri-food innovation clusters play?



- Organizing farmers and strengthening their associations
- Improving access to markets
- Stimulating business development services, and
- *Facilitating access to improved production technologies*

Examples of areas of focus for Agri-food Clusters

- Food processing & food safety (*pathway analysis; prevention and control; detection and surveillance methodologies; sustainable food production, plant growth, horticultural practices, greenhouse operations, aquaponics, environmental management and renewable energies*).
- Competitive Production Systems (*Precision agriculture; Automation and robotics technology development and adoption; GIS, Computer programming*)
- Trade, Market & Targeted Sector Growth Opportunities (*Identifying and accessing new global hubs of agri-food markets & supply chains*)

Niagara's Centres of Excellence in the Agri-food Sector

➤ **Brock University**

Cool Climate Oenology and Viticulture Institute (CCOVI)

Advanced Biomanufacturing Centre (ABC)

➤ **Niagara College**

Agriculture and Environment Innovation Centre (AEIC)

Canadian Food and Wine Institute (CFWI)

➤ **Other Centres**

Vineland Research and Innovation Centre (VRIC)

Niagara Parks Botanical Gardens and School of Horticulture

➤ **Emerging Assets**

Validating, Prototyping and Manufacturing Facility (VPMF)

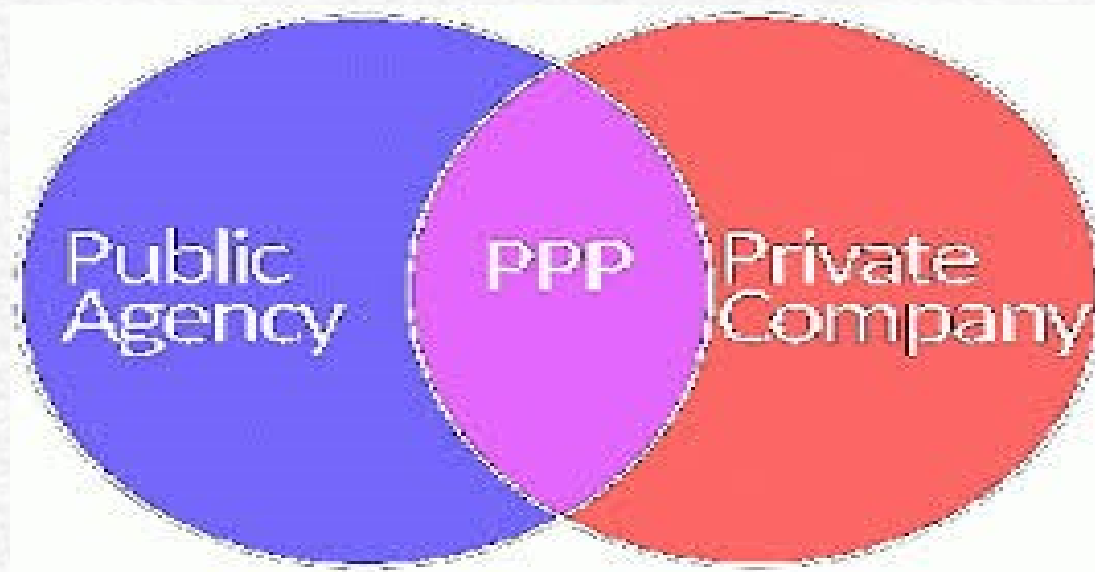
BrockLINC

Clusters are a distinct Type of Network

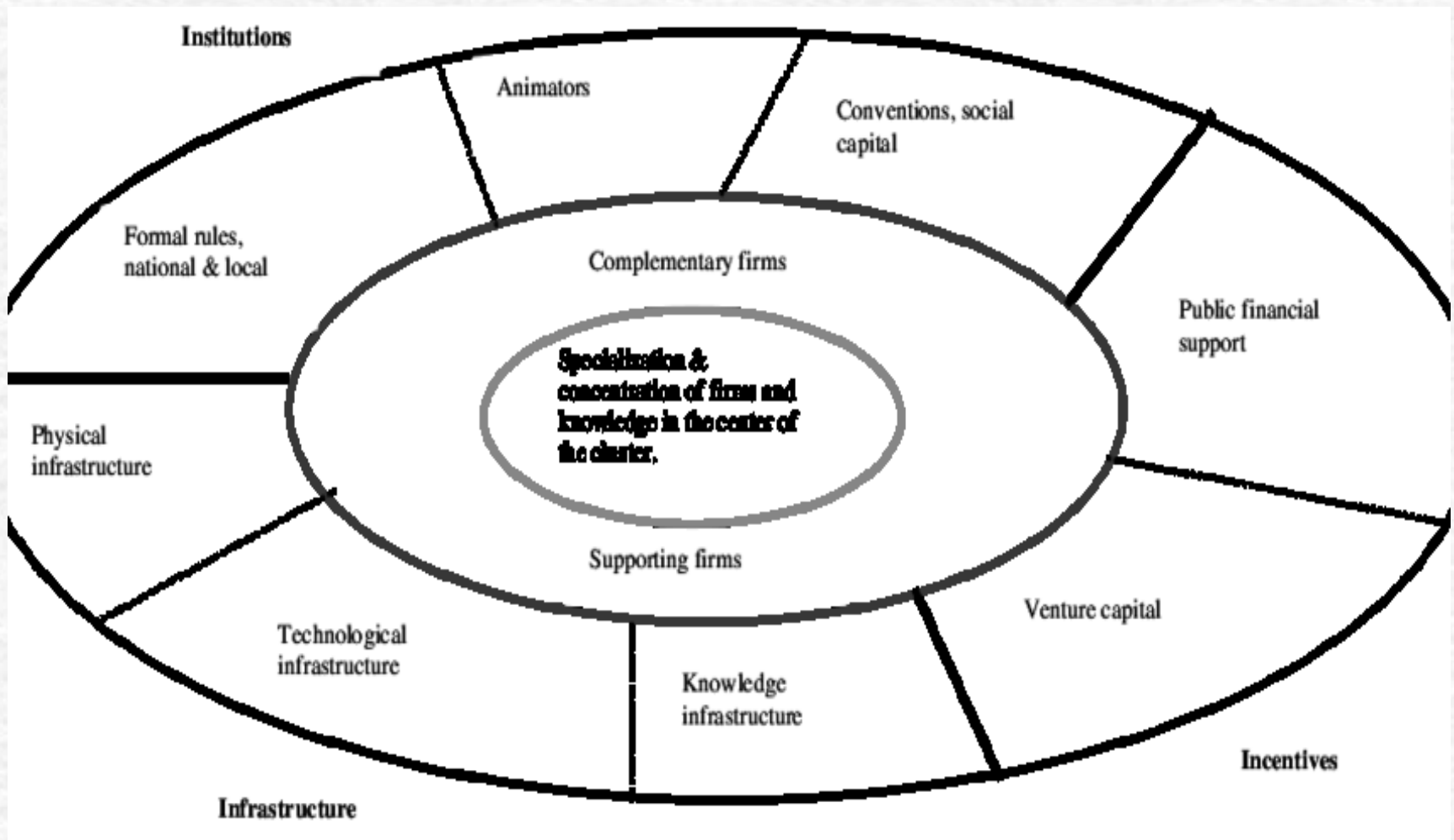
First, they are **not** policy networks (driven by advocacy and lobbying)

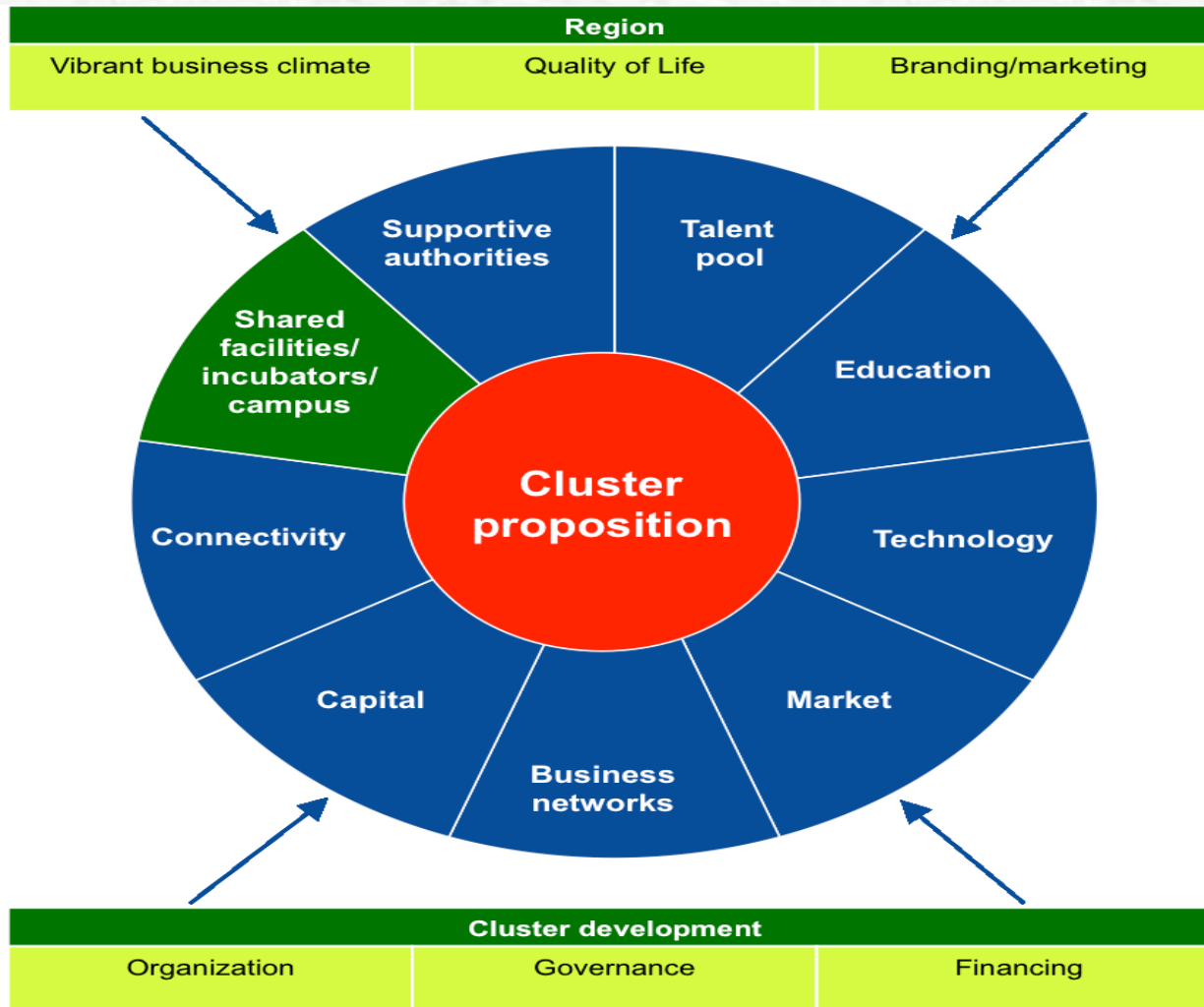


Second, they are **not** contractual networks (driven by single-purpose service delivery)



They **are** governance networks (Collaborative platforms)



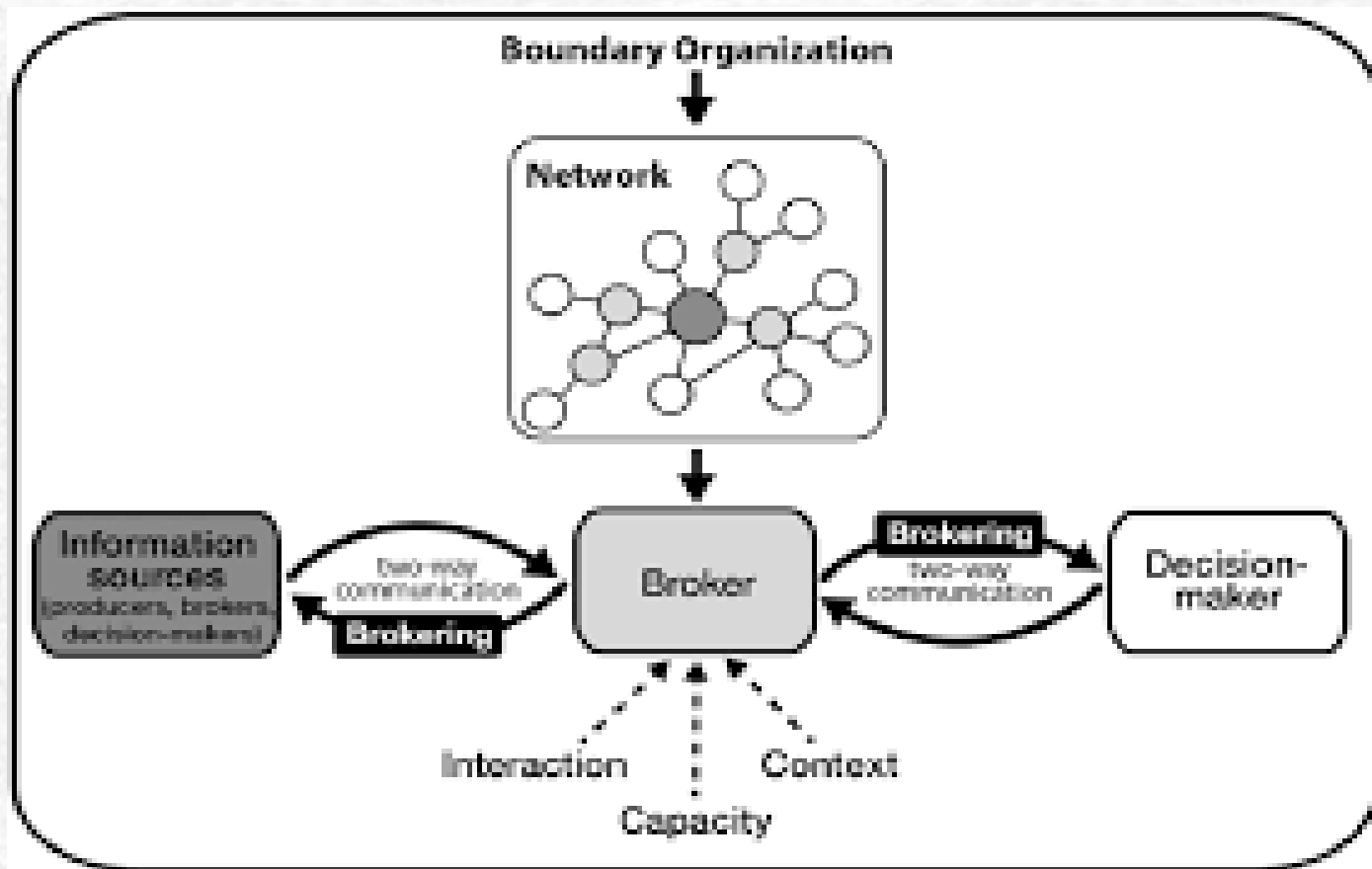


Source: BCI

Three Types of Cluster Platforms

1. The participant-governed cluster (typically private-sector driven and relatively unstable)
2. The lead organization-governed cluster (often hosted by a postsecondary institution or large anchor firm)

3. The network administrative cluster (separate entity - a broker/bridge organization - that serves as intermediary platform for distinct stakeholders separated by geography, industry, institutional mandate or politics)





Thank you