

Industry & Industrial Policy

“An industrial policy is any government regulation or law that encourages the ongoing operation of, or investment in, a particular industry. An active intervention in industrial development is the policy of most if not all countries in the world. Even the US which prides itself as a “free-trading” nation, has implemented strong tax, tariff, and trade laws to “protect itself” from “dumping”, which is the provision of an industrial subsidy by a competing nation to make products for export.

In Japan, the powerful MITI has often taken an active hand in development of major industries, particularly electronics and software. The impact of this intervention is disputed, as Japan is still not a power in software, and has lost much of its advanced electronics industry to Asian Tigers especially South Korea and Taiwan.[...]

Presumably, the nation that seeks to become the global leader in a particular industry must attract many of the most qualified talents in that field, to apply and to improve their own particular individual capital to that problem in that country. Historically, this didn't happen, and the relationship between the immigration and industry-protection rules was at best ambiguous. This suggests strongly that the real purpose of industrial policy was always and only protectionism, the protection of existing jobs for political gain.

Today most industrial policy is subordinated to tax, tariff and trade rules of the General Agreement on Tariffs and Trade [now the World Trade Organisation] and various trade pacts promising various degrees of “free trade”, which in practice means limited subsidy and no protectionism of any one industry.

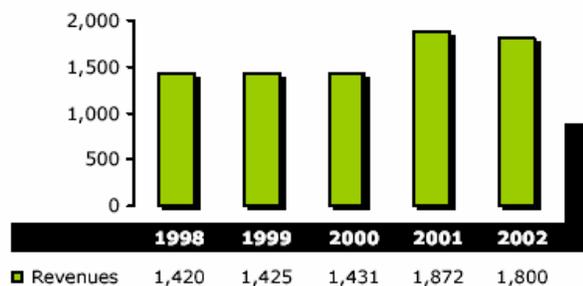
However, notable exceptions including agricultural subsidy in both Europe and the US, and cultural subsidy in Canada, prove that the principle of industrial policy is alive and well, and merely retreating into the shadows.”¹

Instruments of Canadian Space Policy as identified by the CSA are niche strategy, industrial commercialization, partnership strategy, fostering excellence in science and nurturing a science culture.

“At C\$1.8B, total revenues in Canada's space sector declined 4% from those reported in 2001. The decline in revenues was largely attributable to decreases in export revenues, perhaps reflecting the very real difficulty that the industry is encountering because of a depressed international marketplace.

Once again Telecommunications activities, although producing less revenue than in 2001, did generate over sixty percent of total revenues.” Given that 78% of these revenues are for applications and services, which are not always tabled as space revenues, some doubt may be cast on the actual size of the Canadian space sector as quoted in these figures. Only 12% was tied to space segment activities, and 1% to space research.²

Total Space Revenues: 1998-2002 (C\$m)



Source: State of the Canadian Space Sector Report 2002

¹ <http://encyclopedia.thefreedictionary.com/industrial%20policy>

² http://www.space.gc.ca/asc/eng/science_industry/state.asp

Key players:

The **Canadian Space Agency (CSA)** is responsible for setting Canada's industrial space policy, in collaboration with Industry Canada. <http://www.space.gc.ca>

Industry Canada's mission is to foster a growing competitive, knowledge-based Canadian economy. The department works with Canadians throughout the economy and in all parts of the country to improve conditions for investment, improve Canada's innovation performance, increase Canada's share of global trade and build a fair, efficient and competitive marketplace. Program areas include developing industry and technology capability, fostering scientific research, setting telecommunications policy, promoting investment and trade, promoting tourism and small business development, and setting rules and services that support the effective operation of the marketplace. <http://www.ic.gc.ca>

The **Atlantic Canada Opportunities Agency (ACOA)** is a federal government agency, headquartered in the Atlantic Region. ACOA's goal is to improve the economy of Atlantic Canadian communities through the successful development of business and job opportunities. <http://www.acoa.ca>

Western Economic Diversification (WED) works to strengthen Western Canada's economy and advance the interests of the West in national economic policy <http://www.wd.gc.ca>

Canada Economic Development (Quebec) has a mandate to develop the economies of Quebec's regions. <http://www.dec-ced.gc.ca>

The C-4 groups together Canada's 4 largest space manufacturing companies: MDA, EMS, Com Dev and Telesat. Collectively, they work in close coordination to lobby government to pursue projects of interest to them. Bristol Aerospace is another major, wholly-Canadian owned space company, though not part of the C-4.

MacDonald, Dettwiler and Associates Ltd. (MDA) is an information company that provides customers around the world with essential information used for decision making. <http://www.mda.ca>

EMS Technologies is a leading developer and manufacturer of advanced technology hardware products for commercial space, defense, and wireless communications, and focuses on the needs of mobile and broadband users. <http://www.ems-t.com>

COM DEV is the largest Canadian-based designer and manufacturer of space hardware subsystems. COM DEV manufactures products that are sold to major satellite prime contractors for use in communications, space science, remote sensing and military satellites. <http://www.comdev.ca>

With over thirty years' experience, **Telesat** is one of the early pioneers in satellite communications and systems management. Telesat operates a fleet of satellites for the provision of broadcast distribution and telecommunications services, and is a highly respected consultant and partner in satellite ventures around the world. <http://www.telesat.ca>

Bristol Aerospace Limited is a Magellan Aerospace Company with expertise in the design, manufacture and repair of commercial and military aerostructures, engine components and subsystems, and participates in space science research with rockets, payloads and small satellites. <http://www.bristol.ca>

The Canadian geomatics sector represents another essential component of Canada's space industry.

The Geomatics Industry Association of Canada (GIAC) is the largest grouping of Canadian geomatics companies and Canada's premier source of information on the geomatics sector. GIAC's mission is to facilitate networking amongst more than 100 member organizations and disseminate information on opportunities, stakeholder involvement, procedures and policies of interest to its members. www.giac.ca

RADARSAT International (RSI), the private sector company that sells RADARSAT data, as well as a host of other data and satellite products to commercial users around the world; RSI is a wholly-owned subsidiary of MDA, which owns RADARSAT-2 and will take over RADARSAT-1 operations from the CSA at RADARSAT-2 launch. <http://www.rsi.ca>

GeoConnections is a national partnership initiative working to build the Canadian Geospatial Data Infrastructure (CGDI), which will make Canada's geospatial databases, tools and services readily accessible on-line. <http://www.geoconnections.org/CGDI.cfm>

“Hot” issues:

- Sustainability of Canadian space sector investment;
- Absence of coherent, long-term, sustainable industrial development strategy;
- Balance between hardware manufacturers and value-added companies;
- Competitiveness of Canadian industry;
- Absence of significant space-related military or defence investment in Canada (unlike US, large European nations, Japan, Russia and China);
- Regional development and relative weight of regions in national space industry structure;
- Critical mass (infrastructure, human resources, space activity);
- Control by (fragile) private companies (often foreign-owned or publicly traded) of Canada’s critical space infrastructure.

Issues for the CSA

- Need to develop a pro-active industrial development strategy that addresses long-term industrial sustainability beyond individual projects supported by specific companies or groups of companies.
- How can CSA best ensure Canadian companies are competitive in an increasingly subsidized international marketplace, characterised by strong geo-political pressures and protectionism?
- Canada has played a visionary role in space-related public-private partnerships, but the commercial market has not followed; Canada needs to revisit how public-private partnership can best be structured to achieve both government and private sector objectives.

Related themes

Data Policy

Universities/Academia and R&D

References

Basic information:

CSA Industrial Policy and Development http://www.space.gc.ca/asc/eng/science_industry/policy.asp

Latest update:

Industry Canada: <http://www.ic.gc.ca/cmb/welcomeic.nsf/ICPages/WhatsNew>

CSA Industrial Policy and Development http://www.space.gc.ca/asc/eng/science_industry/policy.asp

A closer look:

RAHNEMA, Saeed, HOWLETT, Michael, “Impediments to Industrial Policy: Overcoming Path Dependency in Canada’s Post Staples Transition”, *Journal of Australian Political Economy*, June 2002 http://www.jape.org/jape49_5.pdf

STANFORD, Jim, “Industrial Policy in an Era of Free Trade: What Isn't, and Is, Possible?”, Presented to the Analytical Political Economy Conference, Trinity College, Hartford, CT, May 2003

<http://www.caw.ca/whatwedo/research/pdf/stanfordforapecindustrialpolicy.pdf>