

Table 2: Canada's Trade in Commercial Services, 1990-2001

	Exports (\$million)		Annual	Imports (million)		Annual
	1990	2001	Growth (%)	1990	2001	Growth (%)
Commercial Services Total	9,061	27,963	10.8	12,554	32,002	8.9
Communications	1,220	1,870	4.0	1,210	1,977	4.6
Construction	52	299	17.2	35	144	13.7
Insurance	1,957	3,067	4.2	2,238	4,462	6.5
Financial Services	490	2,349	15.3	733	2,568	12.1
Computer and Information	546	2,231	13.7	344	1,367	13.4
Royalty and Licence Fees	173	2,318	26.6	1,941	5,380	9.7
Non-financial Commissions	306	659	7.2	341	589	5.1
Equipment Rentals	197	267	2.8	308	689	7.6
Management	849	3,177	12.7	1,419	4,803	11.7
Advertising	124	303	8.5	211	450	7.1
Research and Development	700	3,234	14.9	483	1,395	10.1
Architectural and Engineering	549	2,589	15.1	439	1,818	13.8
Miscellaneous Business	1,392	3,488	8.7	2,018	4,027	6.5
Audio-visual	348	1,929	16.8	709	2,159	10.7
Personal	157	183	1.4	123	175	3.3

Source: Statistics Canada, *Canada's International Trade in Services*, Catalogue no. 67-203-XPB, 2002

56.1% in 1990; however, the share of U.S. imports in Canada's total services imports dropped to 61.8% from 63.4% over the same period. The share of EU imports declined both as a source and as a destination of Canada's services trade over the 1990-2001 period. On the other hand, the relative importance of other countries in Canada's services trade has increased over the same period.

The commercial services sector has established by far the largest share and the fastest growth in Canada's services trade. In 2001, they accounted for 49.4% of exports of services and 49.2% of imports. Commercial services include many knowledge-intensive sectors. As shown in Table 2, the fastest growth has been recorded in knowledge-intensive commercial services, particularly in royalties and licence fees, audio-visual, financial services, research and development, architectural and engineering, as well as computer and information services.

Nevertheless, during the 1990s, the pace of growth of Canada's cross-border trade in services has lagged behind merchandise trade. Accordingly, the share of services in Canada's goods and services trade fell to 12.0% in 2001 for exports, and to 15.6% for imports, from the recent peaks of 13.6%, and 19.8%, respectively, in 1991.

What has just been described is, however, an incomplete picture of services trade. Due to their very nature (The provision of many services requires that the service provider is proximate to the consumer for practical and regulatory reasons.), many services are delivered through affiliates set up in foreign countries, so that the services can be sold directly to foreign customers; thus, cross-border activity is not required. In 1999, Canada's cross-border exports in services totalled \$53 billion, while sales by foreign affiliates of Canadian services firms amounted to \$124 billion, more than twice the amount of cross-border services exports. With respect to services imports, in 1997, Canadians purchased \$170.7 billion worth of services directly from affiliates of foreign firms established in Canada, more than three times the amount of cross-border services imports (\$52.6 billion) in the same year. This demonstrates that commercial presence is actually, by far, the preferred mode for services trade. Thus, the usual measures of cross-border trade in services from the balance-of-payments' sources vastly underestimates the scope and depth of Canada's services transactions with foreign countries. Further, the dominance of commercial presence in delivery of services abroad underscores the importance of attracting direct investment to develop Canada's

knowledge-based services economy. It also suggests that, unlike tariffs in goods trade, the centrepieces of services trade policy (and certainly the focus in the currently ongoing World Trade Organization services negotiations) are the right to establish foreign affiliates abroad and the assurance of fair treatment to foreign affiliates to enable their smooth operation in foreign countries.

Conclusion

Despite numerous regulatory trade barriers in services in many parts of the world, Canada's services trade has reached a more significant level than commonly thought. Services that are involved in the production and distribution of knowledge-intensive products, in particular, have registered rapid growth in both cross-border trade and affiliate sales.

Trade economists have always argued that, although trade is not expected to have a permanent impact on the level of employment over the longer term—ultimately, it is macroeconomics rather than trade policy that is responsible for maintaining full employment—it will likely have a strong influence on the structure of output and employment. Increased trade in knowledge-intensive services has had, and will continue to have, a significant impact on the structure of the Canadian economy, resulting in faster growth of output and employment in these services sectors, which will help to create many high-paid and high-quality jobs in Canada.

In the coming decades, Canada faces a challenge to maintain and improve its standard of living in an increasingly competitive global environment. Developing Canada's specialization in knowledge-based services and creating many high-paid, high-quality jobs in services is a valid approach to achieve this challenge. Liberalizing services trade and investment is clearly an important policy instrument to achieve this end and is a key objective of negotiations now under way in Geneva, as well as in various regional initiatives involving Canada.

From the ground up Waterloo company digs Japan



When it comes to succeeding as an exporter, John Vogan can't say enough about having a good local partner to expand his business. President of **EnviroMetal Technologies Inc. (ETI)** out of Waterloo, Ontario, John Vogan and his team of six employees signed a jointly exclusive license with Japanese companies, Kurita Water Industries Inc. (KWI), and the Dowa Mining Company Ltd. (DOWA), for the use of ETI's permeable reactive barrier (PRB) technology for the remediation of organic contaminants in groundwater. With ten years of experience and high demand for its technology, ETI is firmly grounded and export-ready.

KWI and Dowa can now provide a unique service to their clients throughout Japan. It is predicted that the potential Japanese environmental market will be in the 13 trillion yen (US\$100 billion) range as Japan progresses towards legislation for the preservation of soil and groundwater.

Unique technology

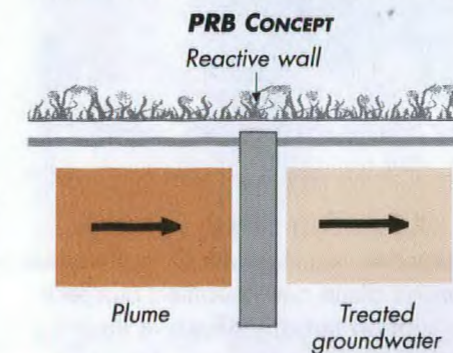
Developed by the University of Waterloo, ETI has the exclusive commercialization rights to this patented process. The EnviroMetal Process destroys dissolved volatile organic compounds (VOCs) in groundwater, including common chlorinated solvents such as tetrachloroethene, trichloroethene, dichloroethenes, vinyl chloride and trichloroethane.

ETI's process uses granular iron placed below-ground such that it intercepts the contaminated groundwater path of a plume. As the plume passes through the granular iron PRB — under natural flow conditions — the VOCs are degraded to non-toxic end products such as ethene, ethane, methane and chloride ions.

World-wide presence

Exports represent close to 100% of ETI's business — most go to the United States — and includes installations across Europe and Australia as well.

ETI's clients include major U.S. government agencies such as the Departments of Defence and Energy, and large industrial clients such as General Electric, Rockwell and E. I. du Pont de Nemours and Company, which have recognized ETI's technology as offering the most cost-effective long-term alternative for the remediation of chlorinated and recalcitrant compounds.



Local contacts crucial

ETI credits a large part of its success in Japan to the Japanese External Trade Organization (JETRO), an organization that offers wide-ranging support for businesses exporting to Japan. JETRO creates export opportunities by providing advice on developing products for the Japanese market and facilitating direct contact between foreign and Japanese companies. JETRO supports export campaigns conducted by devel-

oped countries through organizing trade exhibitions, holding seminars on exporting to Japan and conducting advertising and promotional activities.

After having been interviewed by JETRO staff in Waterloo in November 1999, ETI's technology was selected to be featured at the **New Environmental Exhibition (NEXPO 2000)** in Tokyo. There were over 300 visitors to ETI's booth and over 50 companies expressed serious interest in its technology.

"We could not have done it without JETRO," says Vogan. "They were very helpful. The key for us was to find people who know the market in Japan, people who are connected to local partners. Our agreement with Kurita was a direct result of the work of JETRO. Nurturing these personal relationships was the key to our success in Japan," says Vogan.

Support for ETI also came from the Government of Canada. Explains Vogan, "The Info/Export Web site was a very good resource — especially the sections on IP protection and negotiations in Japan. We also made use of the market support provided by the Canadian Embassy in Tokyo and the Consulate in Osaka."

Things to come

The future does indeed look bright for ETI, which is currently pursuing other national licensing arrangements with firms in Europe and the UK, and other Asian markets. "We feel having a local presence will facilitate the implementation of our technology worldwide," says Vogan. ETI's partnership strategy has been a huge help for this small company — so much so that this strategy will serve as its model for future expansion.

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