

# INVESTING IN CANADA

A NEWSLETTER ON CANADA'S INVESTMENT CLIMATE

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## INVESTING IN THE ENVIRONMENT



*The Environmental Choice Program was created by the Government of Canada to help consumers find products which ease the burden on the environment. Goods and services which meet the criteria are identified by the EcoLogo. The three stylized doves symbolize government, industry and consumers working together.*

For the sixth year in a row, Investment Canada represented the Government of Canada at the World Economic Forum's annual symposium at Davos, Switzerland. Designed to develop and maintain individual and corporate contacts at the highest levels of business and government, the symposium hosted world leaders from the economic, business and financial sectors.

The economy and the environment was the theme of the address by Gro Harlem Brundtland, Prime Minister of Norway, at the closing plenary session. "We need short-term measures and consistent, long-term strategies, based on the recognition that economy and ecology are indeed one issue," she said.

Brundtland, past Chairman of the World Commission on Environment and Development, stated that "energy, environment and development are inextricably linked", and acknowledged that if we are to rebuild the world economy, and update our industrial structures, we must be guided by global environmental principles.

"We need economic and financial facilities that allow the transfer of the best available technology," said Brundtland. "Financial institutions, such as the European Bank for Reconstruction and Development will have an important role to play in forging economic incentives which integrate environmental concerns."

(p. 2) ▼

*In recent years there has been global recognition of the mounting harmful effects and economic costs associated with the environmental degradation of our planet. As environmental awareness increases, there are pressures on governments and industries to adopt the concept of sustainable development.*

*Consumers and investors are learning to wield their economic clout, forcing more and more companies to recognize the importance of their image in the environmental debate. Those which target their products and services towards improvement of the environment have very strong earning potential in the years ahead.*

*We focus on the newly-emerging environmental industry in Canada, and the many and varied investment opportunities which exist in this area. We also offer profiles of five firms taking advantage of the "green movement" towards environmental responsibility. The message is becoming clear: investing in the environment is good business.*

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*Printed on recycled paper  
(Mohawk 50/10) with biodegradable,  
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**INVESTING IN THE ENVIRONMENT** ▲ (cont'd from p. 1)

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Underlying Brundtland's message was the concept of sustainable development. In essence, sustainable development seeks to balance economic development and environmental protection. In Canada, the National Round Table on the Environment and the Economy (NRTEE) was created by Prime Minister Mulroney in October 1988 to focus on the implementation of sustainable development. In the opinion of the NRTEE, sustainable development and national competitiveness go hand in hand.

"Sustainable development is not simply a matter of environmental policy," said Dr. David Johnston, past Chair of the NRTEE. "It is a recognition that if we continue human activities in their current direction, we will lose not only our environmental quality, but we will lose our economic progress as well."

### **ENVIRONMENTAL INDUSTRY**

Cleaning up the environment is not only a challenge but an important opportunity for Canada. The environmental technology industry is among the fastest-growing areas of the Canadian economy, and will play an increasing role in positioning Canada favourably in highly competitive world markets.

Tremendous opportunities exist for Canadian companies and entrepreneurs to develop and sell new environmental technologies. Good engineering design and high calibre operating management are key elements to commercial viability, and to achieving a good environmental record. Canada's world recognized consulting engineering sector is a major asset as we strive for our environmental goals.

The Canadian environmental industry employs, directly and indirectly, about 150,000 people with revenues of \$7 to \$10 billion annually. In a recent study by Peat Marwick Stevenson & Kellogg,

the total environmental protection and control market in North America has reached over \$100 billion. This is slightly larger than the entire North American aerospace and aviation industry, one of the continent's premier business sectors. The environmental industry growth rate, in real terms, is estimated at 7.5% per year. By comparison, the aerospace and aviation industry is growing at 2% to 3% per year.

### **IMPROVED PERFORMANCE**

Increases in energy costs, and the advances in process control instrumentation technology necessary for achieving energy efficiencies, have enabled many industry sectors to meet much higher expectations for cleaner operations. Many companies have found that efforts to achieve better environmental results have not been at the expense of their productivity and competitiveness. Changes in management systems and investments in modernized plants and equipment have improved economic performances while at the same time gaining environmental benefits.

### **THE GREEN PLAN**

The federal government has promised to help increase Canada's ability to capitalize on economic opportunities by providing cost-shared funding for programs to help encourage environmentally favourable technologies.

Outlined in the *Green Plan*, released in December 1990, the Government of Canada will augment its Technology Development Program to provide technology transfer services to firms. To facilitate technology transfer activities in government laboratories, the government will establish a federal-provincial Environmental Technology Network.

The Environmental Technology Commercialization Program will also be launched in 1991 to provide financial resources on a cost-shared basis for

partnerships and joint ventures. Up to 50% of funding will be provided to attract private venture capital for environmental technology projects. Joint venture and consortium opportunities will be developed for Canadian firms in the environmental technology industry, in Canada and internationally, with the Environmental Innovation Program.

### **GLOBE '90**

Recognizing that efforts to resolve environmental problems cannot take place in isolation, the federal government sponsored GLOBE '90, North America's first integrated trade fair and conference on sustainable development. Nearly 400 Canadian companies and 200 firms from 20 other countries exhibited environmental products, services and technologies. GLOBE '92, also to be held in Vancouver, will again emphasize practical solutions to environmental challenges, and the investment opportunities they represent.

### **"GREEN" PRODUCTS**

Many companies are discovering the wide variety of investment opportunities being created by changing consumer attitudes. The success of environmentally-sound products is hard evidence of the effects of awareness on purchasing behaviour, as noted in a *Financial Post* article of June 27, 1989.

Of almost 3,000 new products introduced across North America in the first half of 1989, those labelled as "green" enjoyed sales growth 30 times faster, on average, than all other packaged goods. Industry experts claim sales will soon reach \$1 billion annually from almost nothing two years ago.

According to the Canadian Chamber of Commerce, issues like excessive packaging, toxic substances in cleaning agents, pesticides and chemical residues in food, and wasteful energy consumption are already (p. 3) ▼

## INVESTING IN THE ENVIRONMENT ▲ (cont'd from p. 2)

playing an important role in purchase decisions.

A paper prepared by the NRTEE stated: "While public recognition will not bring an immediate financial reward, it can, in the case of a company for example, build public support, the customer base, market share and a favourable response from investors. It may be more than coincidence that the shares of Loblaws increased about 40% in the six months following the announcement of their green product line."

### "GREEN" INVESTMENTS

Speaking on the issue of investment incentives, the NRTEE acknowledged "there is a need for investment vehicles in Canada so that concerned individuals can invest their funds in a way consistent with their environmental concerns, and to assist companies to make those capital investments necessary to improve the efficiency of their operations and to remain competitive in global markets."

McNeil Mantha Inc., the Dynamic Fund Management Ltd. and ScotiaMcLeod are among the growing number of investment firms offering portfolios of

select companies which are not only profitable but which make a significant contribution to safeguarding and improving the environment.

The Desjardins Environment Fund is a first on the Quebec market to bring environment together with investment. Profitability is still the number one investment criterion, but Desjardins acknowledges this readily goes hand in hand with concern for the environment since, in their experience, socially responsible companies are often those which post the best performances.

### TRADE AND FOREIGN INVESTMENT

Sustainable development also has important implications in trade and foreign investment into Canada. Companies using environmentally benign manufacturing processes will often have a marketing advantage, as evidenced by the comments of the CEO of a major German consumer of Canadian pulp and paper.

Speaking at the 78th Annual Meeting of the Canadian Pulp and Paper Association in January 1991, Georg Holzhey, of Haindl Papier GmbH,

reminded his audience there is a surplus of pulp produced around the world, and countries such as Sweden have already developed more environmentally friendly techniques to whiten their pulp. In his opinion, the Canadian industry must demonstrate it is using environmentally benign whitening processes or lose favour with many of its customers.

Germany, considered by many to be a leader in environmental concerns, established in 1985 the German Environmental Management Association (BAUM).

BAUM has over 220 members including such well-known names as Brown Boveri, Bosch-Siemens, Deutsche Bank, IBM and Lever. Partner organizations have been established in Austria, Switzerland, Sweden, France and the United Kingdom.

To qualify for BAUM membership, companies must demonstrate they have taken concrete action to improve their environmental performance. It stands to reason that pressures will be brought to bear on Canadian firms to improve their environmental records if they hope to continue to have good commercial relations with these firms.

### HOT MARKET

The environmental industry is shaping up to be one of the hottest market areas in the 1990s. In Brundtland's words, "The process of change is in itself a dynamic restructuring process which requires economic activity at a high level. We will see the need to replace capital stock at a high rate to promote energy efficient technology. We will see investments in infrastructure required to meet an entirely new model of future activity. Consequently, the private sector, trade unions as well as governments should see the great opportunity for investments, and for employment, created by the need for change." (p. 4) ▼

## INVESTMENT CANADA REVIEW PROCESS

Given the importance attached to the environment by the public and governments, environmental considerations will clearly have an important impact on the fortunes of many businesses.

While Investment Canada will not be required to carry out formal environmental assessments under the Canadian Environmental Assessment Act, it is important that the Agency be attuned to environmental concerns.

In most cases reviewed by Investment Canada, environmental impacts will likely be insignificant as many are in industry sectors that are environmentally benign. The following sectors have the greatest potential for environmental impact: natural resources; resource processing; smokestack industries; chemical industries; producers of products containing toxic materials; and wholesale distributors of bulk commodities such as chemicals and petroleum products.

In cases where environmental impacts are an issue, Investment Canada will address the subject in summaries and recommendations prepared for the Minister.

## INVESTING IN THE ENVIRONMENT ▲ (cont'd from p. 3)

### INVESTMENT CANADA

The Prospecting Group of Investment Canada, together with Industry, Science and Technology Canada, and External Affairs and International Trade Canada, have organized a series of international business round tables in the environmental technologies field.

The aim of the round tables is to assist Canadian companies in forming partnerships with foreign firms to take advantage of emerging global opportunities in the environmental field. Canadians can be proud to know

there is a thriving industry in Canada becoming internationally recognized. Triton, a B.C. company, has developed a unique method for ultrasonic wastewater treatment in partnership with an Austrian firm. The SNC Group, based in Quebec, has developed a new technology for extracting oil from industrial sludge, in partnership with an Australian firm. Solarchem, an Ontario firm, has developed an ultraviolet lamp which destroys waterborne contaminants. From Continental Amelioration Research Environmentalists (CARE) International of Calgary comes

a novel biotechnology, using bacteria for the containment and bioremediation of contaminated groundwater. SPANS software, developed by Ottawa-based INTERA TYDAC, is already in worldwide use and has proven to be a powerful tool for environmental applications. And Biosys, a California biotechnology company, is using Canadian technical expertise and facilities to scale up production of its biological pesticide. Companies such as these will help to give Canada a competitive edge in global environmental markets in the years to come.

### TRITON: ULTRASONIC WASTEWATER TREATMENT

**T**riton Environmental Consultants Ltd. provides clients with assessments and strategies for coping with air, water and land use problems. Today, in a climate of growing awareness and stringent regulations, project development can succeed or fail on the strength of environmental considerations.

Triton was founded in 1989 when the environmental consulting division of Envirocon Pacific Ltd. was purchased by its senior staff. Triton's team of 60 professionals comprise project managers, biological scientists, water resource engineers, toxicologists, environmental planners, and an environmental lawyer.

Since 1973, Triton has facilitated environmentally responsible management of hydroelectric projects, oil and gas explorations, pulp mills, waste disposal sites, mines, ports, roads, railways, pipelines, fisheries projects and mineral processing plants.

In November 1990, Triton announced a joint venture with the Sonofloc Separation Technology Co. Ltd. of Vienna, Austria, which developed an innovative technology for removing suspended particles in

wastewater. The joint venture company has exclusive licence in Canada.

Ultrasonic waves bombard particles suspended in water which causes them to coagulate into larger pieces. The weight of these larger particles causes them to sink for later collection. This process has applications for the pulp and paper industry, mining, road and general construction, tunnelling, mineral processing, and in treatment of municipal waste.

The technology came out of experiments using acoustic oscillations to speed up the chemical removal of suspended particles from water. It was found the ultrasonic waves removed particles on their own without the use of chemicals. The process gets high environmental marks for its low energy requirements. There are virtually no repairs as there are no moving parts, and no environmental burden as there are no chemicals involved.

Triton plans to build a pilot model for further testing, which should take one year and involve engineers from both Austria and Canada. Full-scale development and production of the Sonofloc process is expected by early 1993.



1. Carbon suspension before oscillation. 2. After two minutes of oscillation. 3. After three minutes. (Courtesy of Triton)

## TESTIMONIAL: "WE INVESTED IN CANADA" – BIOSYS

### The Venture

A California company is using Canadian technical expertise and facilities in order to scale up production of its product. Biosys Alberta Ltd. is testing and manufacturing its biological pesticide in the Alberta Research Council's Edmonton pilot plant.

### Products

BioSafe and BioVector are safe and effective alternatives to chemical pesticides for the eradication of harmful insect pests.

### Size

Biosys Alberta Ltd., established in 1987, employs three people in Edmonton and provides work for many other scientific, technical and research personnel through contract work.

### Markets

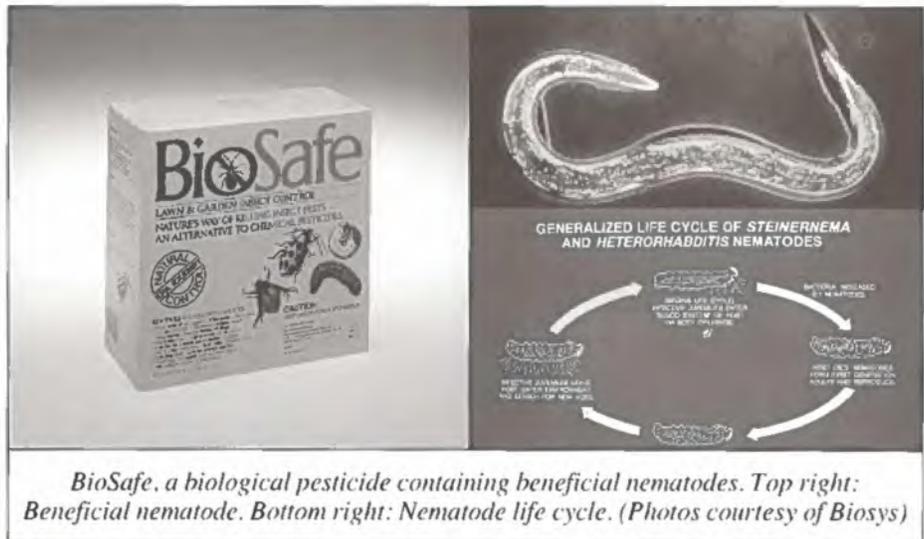
Used in agriculture, horticulture and the lawn and garden industry, the products are distributed worldwide by its parent company, Biosys.

### Future

Alberta is being considered as the primary site for the company's manufacturing facilities.



Dr. Venkat Sohoni, C.E.O., Biosys,  
Palo Alto, California.



*BioSafe, a biological pesticide containing beneficial nematodes. Top right: Beneficial nematode. Bottom right: Nematode life cycle. (Photos courtesy of Biosys)*

**I**nsect pests destroy billions of dollars worth of commercial crops every year. Biosys has discovered that the best way to eliminate harmful insect pests is by using their natural enemies, "beneficial nematodes". Nematodes are parasitic worm-like creatures half a millimetre long and practically invisible to the naked eye.

These creatures actively seek out their targets in the soil, attracted to the heat and carbon dioxide emitted by insect pests. They enter the insect through natural body openings and release a bacterium fatal only to the target insect, which dies within 24 to 48 hours. The nematodes then go through their reproductive cycle inside the body of the insect host. As the insects die off, so do the nematodes, leaving no residues which can accumulate and eventually endanger the water table.

The biological pesticide can be applied in furrows as the seed is planted, sprayed on trees or the ground, and even sprayed from the air. Destructive to hundreds of harmful insect species, nematodes are not harmful to crops, plants, humans, animals, birds, earthworms, the environment or beneficial, above-ground insects. And while many insect pests are becoming resistant to chemical pesticides, they have shown no such resistance to nematodes.

Nematodes occur naturally all over the world, but under natural conditions are insufficient in number to control insect pests. Biosys is scaling up its state-of-the-art production methods to "brew" nematodes in liquid culture in quantities approximating a million billion per year, at costs competitive with chemical pesticides. Its research group is experimenting with desiccating nematodes for periods of time that are commercially viable.

Presently, a unique gel packaging allows them to be shipped in a semi-dormant state. The gel is dissolved in water and sprayed directly onto moist soil or lawn surfaces. These "bugs for hire" are available in two sizes, 10 million or 100 million in a jar.

Biosys has options on two sites in the Edmonton area where it is considering building its own manufacturing facility. In an effort to keep this high-tech, experimental process in Canada, the Alberta government has offered Biosys loan guarantees of \$20 million.

BioSafe received the coveted U.S. Retailers Choice Award in 1990, reflecting growing consumer awareness for an environmentally safe means of eliminating pests from the garden.

## SNC: OIL FROM SLUDGE PROCESS

The SNC Group is a diversified Quebec engineering and construction firm which offers more than 20 years of global experience in waste management. Its areas of expertise include solid waste management, pyrolysis (chemical decomposition by heat action), liquid effluent treatment, and recycling and treatment of hazardous waste.

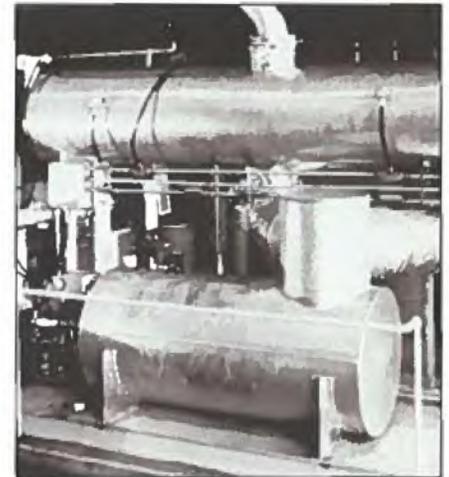
Of all the problems municipalities have to solve, sewage sludge treatment and disposal is a growing part of their budgets and can even reach 50% of the annual wastewater treatment budget.

SNC recently completed a comprehensive waste management study for a group of 27 Montreal municipalities, exploring recycling, composting, energy production and recuperation at source, the most complete integrated waste management project ever undertaken in North America.

In 1988, Enersludge Inc., was created through an equal partnership with SNC and Campbell Environmental Ltd. of Australia. An exclusive licensing agreement with Environment Canada gave SNC the North American rights for a new technology for converting treatment plant sludge into liquid hydrocarbon.

The oil-from-sludge (OFS) process involves heating dried sludge to temperatures of 450 degrees Celsius in an oxygen-free environment. The conversion process produces hydrocarbons in much the same way that nature produces crude oil, but the process is accelerated so that it is completed in 30 minutes instead of millions of years.

This recycling system is a net energy producer and 50% of the sludge's gross energy is recovered in the form of hydrocarbon. Enersludge's environmen-



*Reactor used in "oil-from-sludge" process. (Courtesy of SNC)*

tally superior system provides complete pathogen destruction, odour control, metal immobilization and air pollution reduction.

## CARE: BACTERIAL BIOBARRIERS

The most immediate threat posed by non-gaseous pollutants generated by industrial activities, or by calamities like tire fires, is that they enter natural water systems by groundwater flow.

Continental Amelioration Research Environmentalists (CARE) International of Calgary, created in March 1990, has developed an economical and effective ultramicrobacteria (UMB) technology to solve this problem. The process, used for plugging water breakthrough zones in oil recovery operations, was invented jointly by Dr. William Costerton, Professor of Microbiology at the University of Calgary, and by Dr. Ted Cyr of the Alberta Oil Sands Technical Research Authority.

This novel biotechnology plugs deep groundwater flow zones by injecting starved bacterial cells that penetrate readily into permeable areas of the reservoir. The UMB are then stimulated with simple organic nutrients, such as

molasses, to return to their natural size and normal metabolism.

The biobarriers thus constructed consist of bacterial cells and large amounts of viscous extracellular polymers. The strains of bacteria used in these operations are native bacteria originally obtained from the same formation and pose no biological threat.

CARE is currently seeking investors to effect the transfer of the UMB selective plugging biotechnology from the oil recovery industry to environmental protection. The process has much to offer in the containment and bioremediation of pollutants, and could be used to plug the complex fine leaks that often develop in berms and earthfill dams. The biobarriers can remain effectively in place for up to 10 years.

Dr. Costerton received the 1990 Izaak Walton Killam prize in biology. The



*Starved ultramicrobacteria on sand particles. (Courtesy of CARE)*

\$50,000 Killam prizes are Canada's most prestigious annual awards given in recognition of world-class achievement by Canadians in the natural sciences, the health sciences and engineering.

## INTERA TYDAC: GEOGRAPHIC INFORMATION SYSTEMS



*SPANS, running on an IBM PS/2.  
(Courtesy of INTERA TYDAC)*

**I**NTERA TYDAC Technologies Inc. specializes in the development of geographic information system (GIS) software and related applications. Its main product, SPANS (SPatial

ANalysis System) offers strong data integration, analysis and modelling capabilities.

SPANS is used for a wide range of applications including environmental analysis, mineral exploration, forestry, land use planning, regional planning, water resources planning, resource mapping, defence and intelligence applications, crop entomology, soils research, marine sciences, transportation planning and demographics.

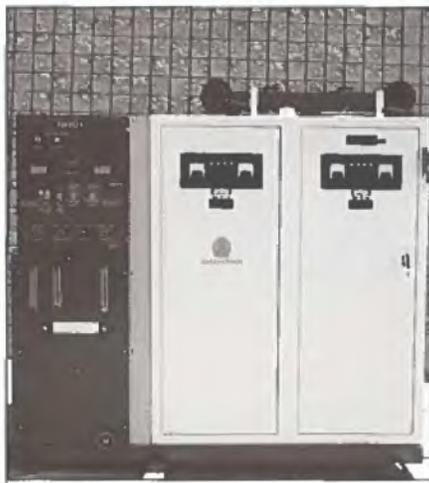
Environment Canada, one of INTERA TYDAC's largest Canadian users, has purchased over 75 SPANS for integrating and analyzing extensive amounts of environmental, socioeconomic and health data. The ability to study the geographical relationships between various data sets will be important in the delivery of the Canadian Environmental Protection Act (CEPA).

SPANS is being used to assist in the St. Lawrence River clean-up plan, to capture, integrate, model and interpret environmental and socioeconomic data in a single data base, such as water quality and use, endangered wildlife species and habitats, fishing, agricultural practices, population figures and recreational activities.

SPANS has also proven its use in hazardous waste treatment site selection, enabling users to conduct site selection operations that would otherwise be time consuming and labour-intensive, if not impossible, by manual methods.

INTERA TYDAC was formed in January 1991 when Intera Information Technologies Corporation and IBM acquired the assets of TYDAC Technologies Inc., first established in Ottawa in 1982.

## SOLARCHEM: GROUNDWATER OXIDATION



*RAYOX unit. (Courtesy of  
Solarchem)*

**T**he use of enhanced oxidation processes to clean up contaminated groundwater has become increasingly more common in recent years. Enhanced oxidation offers considerable advantages over traditional technologies

such as granular activated carbon and biologically activated sludge which leave residues requiring disposal. "Second generation" treatment technology is convenient and cost effective, and residues require no further treatment.

Solarchem, which began operations in Toronto in 1984, has developed RAYOX, a second generation enhanced oxidation process which destroys waterborne contaminants such as explosive compounds, chlorinated hydrocarbons, phenols, gasoline, cyanides and pesticides.

In nature, chemical vapours make their way into the upper atmosphere where they encounter strong ultraviolet light from the sun. They combine with ozone to form a powerful oxidant known as the "hydroxyl radical" which attacks the chemical. The RAYOX system uses essentially the same method but is one million times faster and is

done in a confined space. Ultraviolet light destroys toxins that would not otherwise be exposed to the conditions of the upper atmosphere.

Contaminated water is flowed through reactors at the centre of which is a high intensity ultraviolet lamp. The Solarchem lamps are proprietary high-intensity UV light sources with wavelengths matched to the absorption characteristics of the contaminant to be destroyed. The lamps allow direct photolytic destruction of organics in water without leaving hazardous wastes.

After processing by RAYOX, treated groundwater could be discharged directly into a nearby river at low ppb or ppt levels. Even more stringent discharge criteria could be met by simply increasing the RAYOX dose.

## EXPERTS DISCUSS CORPORATE GLOBALIZATION THROUGH M&A

Left to right: Paul Labbé, President of Investment Canada; discussant Stephen Richardson, with the law firm Tory, Tory, DesLauriers & Binnington; contributing author Jack Mintz, Professor of Economics, Faculty of Management, University of Toronto.



*"Increased strategic corporate networking and alliances are leading to new international linkages. Corporate restructuring to compete in global markets is the name of the game. M&A activity will remain a major factor throughout the 1990s."* Paul Labbé, President, Investment Canada

"Given the recent increase in the pace and value of cross-border acquisitions by Canadian firms, it is all the more imperative that concrete steps be taken to create a more comprehensive merger and acquisition (M&A) database. It will likely be necessary for public and private organizations interested in M&As to work together and to pool resources."

*J. Knubley, W. Krause & Z. Sadeque, Investment Canada*

"In the 1980s there was a merger wave in Canada and abroad. The absolute volume of M&A activity was highest in the U.S. However, when adjustments are made for the relative size of countries, M&A activity was greatest in Sweden, followed by Canada and the U.K. In Canada, the level of M&A activity generally tends to be high in the business or personal services, finance, insurance and real estate, and trade sectors."

*S. Khemani, University of British Columbia*

"Growing globalization has raised awkward questions in a world where governments often appear to be doing contradictory things: developing their own multinationals through various subsidies, protected local markets, public ownership and the like, while insisting they must have access to other countries' markets. It is not difficult to envisage the damage to trade and investment which such policies can bring."

*A.E. Safarian, University of Toronto*

"In the Canadian context, foreign capital and technology have added enormously to Canada's assets. Fully 70 per cent of Canadian trade is done by 50 multinationals, with half of these being foreign owned. There is as much inward foreign direct investment as outward, and the imports of the foreign-owned subsidiaries are matched by their exports. This demonstrates foreign-owned firms play as significant a role as do the domestic-owned Canadian corporations."

*A. Rugman & L. Waverman, University of Toronto*

"At the margin, taxation is an important variable. All methods of entry are affected by the tax regime under which either the foreign or domestic operations of the parent are taxed and any tax treaties in existence between the countries. Cross-border acquisitions involve a very complex part of tax law of not just one but many countries."

*J. Mintz & P. Halpern, University of Toronto*

"The challenges for policymakers in responding to the concerns of stakeholders [in M&A] are analogous [to addressing the social adjustment costs related to freer trade]. In the main, most M&A transactions imply net welfare gains for the economy. Policy-makers should refrain from deploying strategies that attempt to vindicate stakeholder interests by restricting these [M&A] transactions."

*R. Daniels & M. Trebilcock, University of Toronto*

"Industries with low and high foreign ownership differ sharply in the opportunities they afford for gains through changes in control [of ownership]. Where foreign ownership is high, so are opportunities for the synergistic deployment of lumpy and intangible assets. It is desirable to have both foreign and domestic enterprises active in the market for corporate control because they bring somewhat different skills to the task of resource allocation."

*J. Baldwin, Statistics Canada & R. Caves, Harvard University*

"Hostile takeovers have an important role to play in the reorganization of asset ownership and the restructuring of the Canadian economy in a context of trade liberalization, economic integration and globalization. The market for corporate control appears to be a means for achieving strategic objectives [to realize economies of scale and scope, and/or to increase market power] rather than [for] eliminating internal managerial inefficiencies."

*M. Patry, École des Hautes Études Commerciales & M. Poitevin, Université de Montréal*

## CORPORATE GLOBALIZATION THROUGH M&amp;A ▲ (cont'd from p. 8)

In November 1990, Investment Canada, in collaboration with the Centre for International Studies at the University of Toronto, organized an Authors' Conference around the theme of mergers and acquisitions (M&A).

The conference followed one in September 1990 on foreign investment and technology (see *Investing in Canada*, Vol. 4, No. 3, Winter 1990) as part of major research projects examining the fundamental economic issues at play in light of globalization.

Paul Labbé, President of Investment Canada, presented the opening remarks, and Alan Nymark, Executive Vice-President, chaired a session on the subject of M&A and the Public Interest.

Professor Len Waverman, Director, Centre for International Studies, acted as the project co-ordinator and more than a dozen economists authored papers. Over 50 people, representing the academic community, M&A practitioners, financial journalists and public officials attended the conference.

The M&A research project was inspired by Investment Canada's experience in dealing with the cross-border merger wave in the late 1980s. Substantial studies of M&A activity are relatively few, particularly on cross-border acquisitions. Better understanding the forces behind the merger wave was felt essential when Canadian firms were among the leading actors in this global pattern.

### MAJOR THEMES

□ In Canada and the other major industrial countries, there was a pronounced upward trend in M&A in the late 1980s. Entry to foreign markets was dominated by cross-border M&A activity rather than new "greenfield" investment.

□ The majority of foreign M&A activity in Canada involved U.S. firms. There has been an increase in large

transactions, in particular those exceeding \$100 million. A majority of the deals were horizontal, that is, in the same industry, suggesting Canadian companies are concentrating more on core activities, which contrasts to the late 1970s and early 1980s when diversification was the rage.

□ Strategic considerations such as enhancing competitiveness and gearing up to take advantage of global markets were found to be dominant factors explaining cross-border takeovers.

□ An M&A specialist stressed that companies desiring above average growth are confronted with a choice of "buy versus build". The choice is very much skewed in favour of the buy decision. While acquisitions have their attendant risks, the costs and risks associated with building a product line in a slow-growth market can also be substantial, and the required time for success often lies outside the latest corporate strategic plan.

□ Acquisitions, including cross-border transactions, can enhance productivity, resulting in the transfer from parent to affiliate of such firm-specific assets as innovation, managerial expertise and marketing. But other findings point to potential motivations behind M&A such as speculation, personal gains for managers and enhanced market power, which do not always make the acquired corporation more efficient.

□ Examination of ten contested takeovers in Canada showed the bulk of the value generated went to shareholders of the acquired firm. This evidence is consistent with similar analysis conducted for a larger sample in the U.S.

□ In contrast to the U.S., there are relatively few hostile takeovers in Canada. The main reason is the relatively higher levels of concentration of share ownership in Canada. However, in comparison to continental European

countries and Japan, Canada is more open to hostile bids. Close holdings by governments and banks, large family holdings and high levels of corporate concentration make hostile bids virtually impossible in these countries.

□ In cross-border acquisitions, tax considerations are not primary to the decision to buy. Once the decision has been made, however, tax considerations are important for determining the ultimate structure and operations of the acquired firm.

□ Such stakeholders as employees, suppliers and creditors are likely to encounter little harm as a result of M&A activity. While there can be negative consequences from a change in control, these are more likely the outcome of a variety of factors not directly linked to the transaction. Specific policies designed to help stakeholders counter the effects of M&A activity were rejected in favour of more universal economic and labour market policies.

□ National differences in the treatment of M&A will grow in importance, highlighting the need for better harmonization of policies between Canada, the U.S., the EC and Japan. The issue of reciprocity will likely play an important role in these discussions, particularly in the context of recent developments relating to common EC guidelines that apply to large mergers, and U.S.-Japan talks on structural impediments.

□ Many felt a more comprehensive literature should be developed in Canada on Canadian direct investment abroad and its benefits/costs to the nation.

The authors' papers will ultimately be published as a volume by a university press later this year.

—John Knubley is Director of *Investment Research for Investment Canada* (613) 995-7077.

## THE NATIONAL PACKAGING PROTOCOL: INVESTMENT OPPORTUNITIES IN CANADA

As landfill capacity shrinks and cost of disposal rises, the effective management of solid waste has become a major challenge to industry, consumers and governments alike. Packaging waste has been singled out as a serious environmental concern as it constitutes the largest waste item in a landfill (30% of total). The need to reduce the amount of packaging waste has thus become a crucial global problem and represents a major challenge to our planet in the years to come. Canada's response has been to adopt, in March 1990, a National Packaging Protocol (NAPP).

The NAPP results from a decision by federal and provincial Ministers of the Environment to develop a national packaging policy to address the broader solid waste management issue as well as set targets to minimize packaging waste and achieve a 50% reduction in waste generation by the year 2000.

Not surprisingly, the NAPP is expected to create varied investment opportunities for Canadian packaging and related firms. Indeed, the materials suppliers, machinery manufacturers, packaging designers and food processors will all be looking for innovative and cost-effective ways to minimize packaging.

A National Packaging Task Force was commissioned, with representatives from federal and provincial governments, municipalities, industry, environmental and consumer groups. Six packaging policies were recommended and targets were set to reduce packaging waste in three stages, cutting 1988 levels to 80% by 1992, to 65% by 1996 and to 50% by 2000.

The Task Force is overseeing the implementation of the policies, the development of a "Code of Preferred Packaging Practices" to act as industry guidelines, and the drafting of legislation which may be required if targets are not met through voluntary compliance.

From an investment point of view, the NAPP clearly stimulates the R&D of new packaging products and materials, the identification of new technologies with minimal impact on the environment, and the development of new applications for recycled materials.

Building on these investment opportunities will certainly enhance the international competitiveness of Canada's packaging sector. Investment Canada is considering undertaking a project to promote the formation of business partnerships between Canadian and European firms and research institutes in advanced food packaging technologies. If interested in such an initiative, please contact Alexandra Wood at (613) 995-9468.

While by no means a *fait accompli*, Canada's response to the management of its packaging waste in the NAPP is attracting international interest and creating new investment opportunities. Indeed, Canada's approach, which is to reach for a national consensus among interested parties, offers foreign and domestic investors alike the ability to participate in the future of the packaging industry.

— Alexandra Wood, *Investment Promotion*

## INVESTTECH '91

Looking for a new technology from Europe or Asia? A strategic alliance with a company in the U.S.? InvesTech '91 is bringing home a world of knowledge to Canadian business this spring.

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The investment and technology officers will be visiting 11 Canadian cities between April 22 and May 3, 1991, offering their specialized knowledge and experience.

For information on registration, call 1-800-267-8376.

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Editor-in-Chief – Richard Bégin  
English Writer/Editor – Lillian Rukas  
French Writer/Editor – Vincent Beaulieu  
Production – Bernard Cossais  
Publishing Officer – Suzanne Le Blanc

*Investing in Canada*,  
P.O. Box 2800, Station D,  
Ottawa, Ontario. K1P 6A5  
Tel: (613) 995-9525  
Fax: (613) 996-2515

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