

,b 2381059(E)

CAL
EA14
91M52
cop. 1
DOCS

MOVING into EUROPE



1 9 9 2

**CANADA
EUROPE**

External Affairs and
International Trade Canada

Canada

Moving into Europe

Dept. of External Affairs
Min. des Affaires extérieures

AUG 8 1991

RETURN TO DEPARTMENTAL LIBRARY
RETOURNER A LA BIBLIOTHEQUE DU MINISTERE

43-259-936.

From the Government of Canada

External Affairs and International Trade Canada (EAITC) is pleased to be able to offer the Canadian business community this succinct and valuable guide to strategic partnering and Europe 1992 entitled *Moving into Europe*.

Europe 1992 is happening now. The European Community's ambitious Single Market initiative has already dramatically changed the way Europeans are doing business. The process is irreversible; the pace is rapid and accelerating. If Canadian businesses are to profit from the opportunities that this enormous market will bring, they must be well informed.

That is one of the responsibilities that EAITC assumes. This publication is a practical guide for establishing a concrete presence in Europe through strategic partnering - one of the most effective and popular tools open to international businesses today. It will help you in identifying your firm's particular strengths and requirements. To further assist you in this task, we have an extensive series of publications prepared by both private consultants and interdepartmental working groups, analyzing specific sectors. (A list of titles follows).

We also have tangible, practical programs to introduce you to the European market. These are well-publicized through our CanadExport publications. Our trade officers in the European Community Division of EAITC and at the International Trade Centres in each province would be pleased to respond to your specific questions. Take advantage of these programs. They have been setup to benefit you.

Publications in the series *1992 Implications of a Single European Market* include: Agriculture and Food Products; Telecommunications and Computers; Automotive Industry; Minerals and Metals; Forest Products; Defence, Aerospace and Transportation; Specialty Chemical Products; New Materials, Pharmaceuticals and Biotechnology; Industrial Products and Services; Financial Services; Fisheries Products; and Professional and Consulting Services - Law and Accounting. Other reports include European Economic and Monetary Union; Company Law; Competition Policy; Standards; Freight Forwarders; 1992 and Related Issues; and Intellectual Property.

For more information on publications available please contact the EAITC INFO EXPORT hotline 1-800-267-8376.

Canada



External Affairs and
International Trade Canada

Affaires extérieures et
Commerce extérieur Canada

Executive Summary

The European Community (EC) Single Market presents Canadian business with an important opportunity. Penetration of this vast and sophisticated market will enhance any company's competitive position in the global marketplace. Success in the European market, however, demands an ability to respond rapidly to changing technological and business conditions. Few Canadian businesses will be able to prosper in the EC if all they do is maintain an arms-length trading relationship.

In a business environment characterized by rising costs and intensifying competition, firms have to go beyond trade. Canadian companies can no longer depend on their traditional manufacturing strengths and exporting practices. Innovation and flexibility are more important than ever, but these competitive advantages are no longer the exclusive preserve of a few industrialized countries. Firms from many parts of the world now possess sophisticated industrial capabilities. As a result, the decisive advantage often goes to those that are closest to the customer. Much depends on familiarity with local markets, possession of effective distribution systems, and the ability to provide good, on-the-spot service.

Strategic alliances enable firms to position themselves in overseas markets without the huge investments that were traditionally the only alternative to exporting. Strategic alliances not only save time and money, they also enable each partner to focus on what it does best, relying on the other to provide the skills, local savvy, resources or financing necessary to achieve success.

This book describes how Canadian businesses can use strategic alliances to enter markets in the EC. The first chapter describes the nature, dimensions, and opportunities to be found in the Single Market, and it explains why strategic alliances are often the most effective mode of EC market entry. The second chapter summarizes the current trade and investment relationship between Canada and the EC.

Subsequent chapters in the book describe how Canadian companies can use strategic alliances to take advantage of the Single Market. Chapter III examines why strategic alliances are popular both in Canada and in the EC and outlines the kinds of alliances companies are using in the EC. This sets the stage for the fourth chapter which guides the reader through the stages and strategic issues involved in forming and managing alliances.

The creation of the Single Market has been accompanied by the emergence of several exceptionally dynamic regions as economic powerhouses. Many of these regions promote strategic alliances between their own firms and foreign firms looking for a developed point from which to enter Europe. International business is taking advantage of the opportunity because it understands the importance of a sophisticated infrastructure and developed capabilities in enhancing competitiveness. Chapter V discusses the key issues involved in selecting a region with the right sort of advantages as a focal point for a strategic alliance. It then describes some of the most dynamic regions in the EC: Baden-Württemberg, Catalonia, Lombardy and the Rhône-Alpes, collectively known as the Four Motors of Europe.

Chapter VI describes a number of EC industries that display particular promise as partners for Canadians. These are sectors in which Canadian businesses are internationally competitive and in which they have shown substantial development capabilities. The book concludes with a summary chapter that draws attention to further change and further opportunities. While the Single Market is virtually upon us, the unification of Germany, recent negotiations between the EC and the EFTA countries, and the transformation of Eastern Europe have all meant that the process of integrating European markets is already going far beyond anything its planners originally imagined. The promise of the Single Market is proving richer and deeper than anyone had anticipated.

Annex A contains a series of questions designed to help managers find out if their firms have what it takes to break into competitive, international markets such as the Single Market. It also summarizes what they need to consider in determining the suitability of a prospective partner. After each question, space is provided to jot down responses. Annex B and C contain a list of important sources of information and assistance available to Canadian firms wanting to partner in the EC.

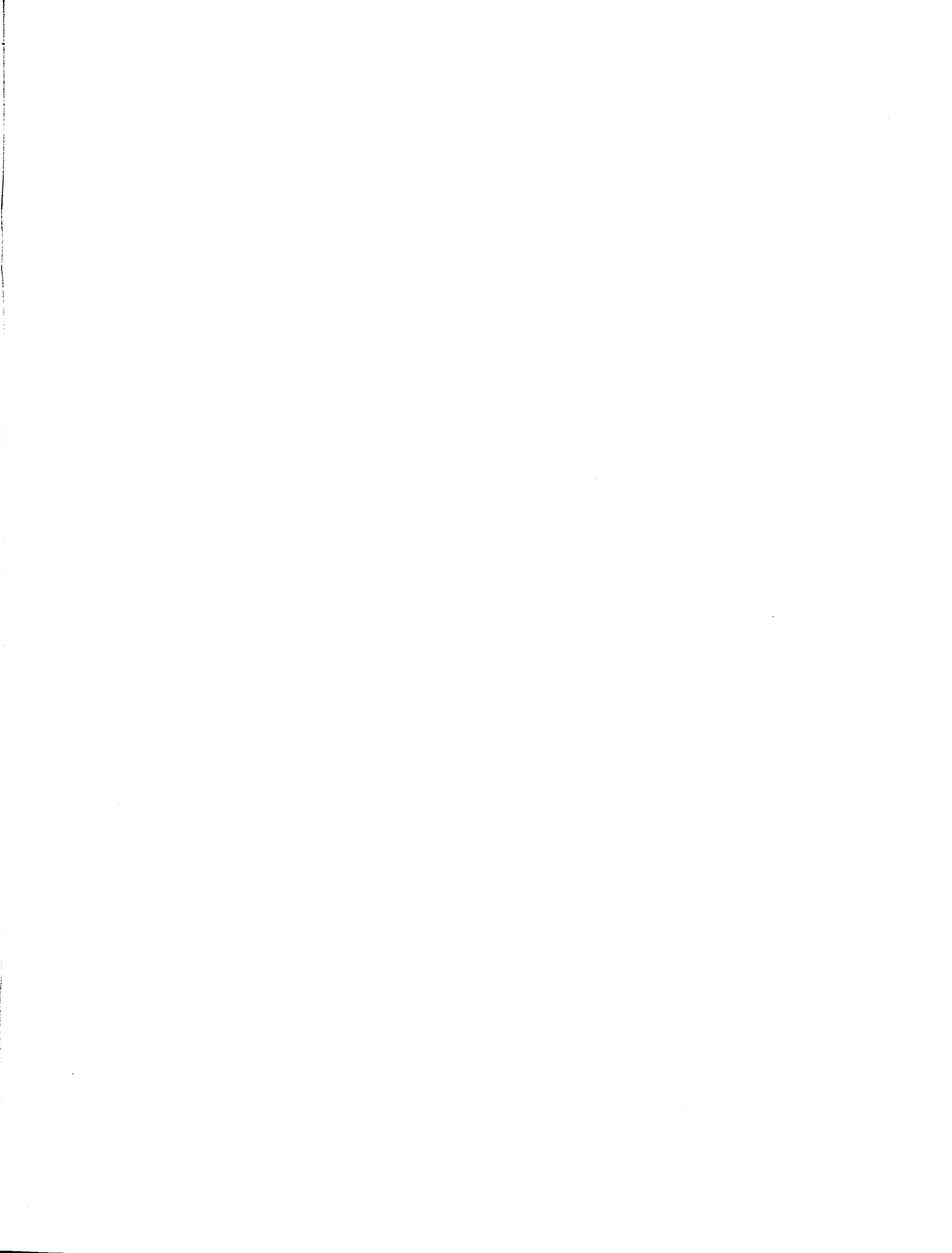
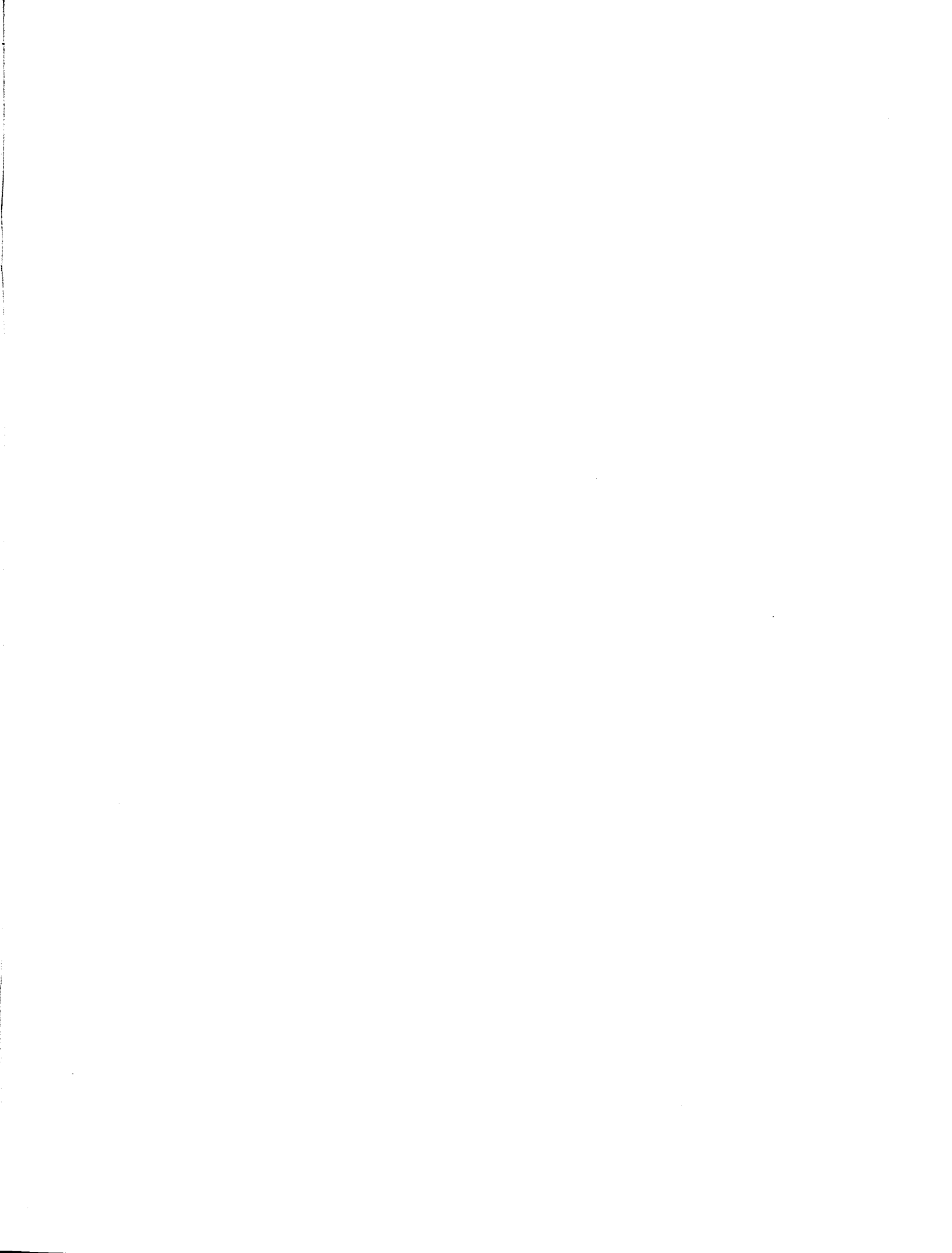


Table of Contents

I.	Europe 1992: The Opportunity	5
II.	The EC - Canada Relationship: Unrealized Potential	17
III.	Strategic Alliances: Today's Business Tool in Europe	21
IV.	What to Consider When Forming an Alliance in the EC	27
V.	The EC is Driven by Regional Motors	39
VI.	EC Industry Sectors of Particular Interest	53
VII.	Conclusion	71
	Annex A: Are You Ready to Partner	73
	Annex B: Canadian Government Programs Related to Strategic Partnering	79
	Annex C: Useful Addresses	83



I. Europe 1992: The Opportunity

The EC market and its potential

Europeans are the favourite partners

The Single Market

The nature of the change

Strategic alliances: the potential

Acquisitions or alliances

The EC market and its potential



The emerging EC Single Market rivals the United States (U.S.) in importance. It is the world's single largest trading bloc.

- The members of the EC are: Belgium, Denmark, France, Germany*, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, United Kingdom (U.K.).
- Based on preliminary data, the EC accounted for approximately 19.7% of world imports in 1990 (excluding intra-EC trade), compared to 14.3% for the U.S., 6.5% for Japan and 3.3% for Canada.
- The EC's share of world exports in 1990 was approximately 19.6% (excluding intra-EC trade), compared to 11.4% for the U.S., 8.2% for Japan and 3.8% for Canada.
- The Gross Domestic Product (GDP) of the EC in 1990 was \$6.8 trillion, ahead of the American figure of \$6.4 trillion and far ahead of Japan's \$3.4 trillion.

Growth in Retail Sales Volume (1985=100)

	EC	U.S.	JPN	CAN
1980	94.9	83.3	90.4	91.8
1981	94.9	83.8	92.1	91.3
1982	94.6	83.1	92.9	86.3
1983	94.9	89.0	93.7	89.0
1984	97.2	95.4	96.6	93.0
1985	99.9	100.0	99.8	99.9
1986	104.7	105.7	106.4	104.6
1987	109.0	108.3	113.6	110.1
1988	112.4	112.2	122.7	113.8
1989	116.7	114.2	132.7	128.1

Note: EC figures (1980-89) include the 12 countries that were Member States in 1990.

Source: OECD Statistics, Paris (1991)

Growth in Real Gross Domestic/National Product

(year-over-year percentage change)

	EC	U.S.	JPN	CAN
1980	1.5	-0.2	4.3	1.1
1981	0.2	1.9	3.7	3.4
1982	0.7	-2.5	3.1	-3.2
1983	1.6	3.6	3.2	3.2
1984	2.5	6.8	5.1	6.3
1985	2.4	3.4	4.9	4.7
1986	2.7	2.7	2.5	3.3
1987	2.7	3.4	4.6	4.0
1988	3.9	4.5	5.7	4.4
1989	3.5	2.5	4.9	3.0
1990	2.9	1.0	6.1	1.1

Note: EC figures (1980-89) include the 12 countries that were Member States in 1990.

Source: OECD Statistics, Paris (1990).

Inflation Rates

(year-over-year percentage change in consumer prices)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Belgium	7.6	8.7	7.7	6.4	4.9	1.3	1.6	1.2	3.1	3.5
Denmark	11.7	10.1	6.9	6.3	4.7	3.7	4.0	4.6	4.7	2.6
France	13.4	11.8	9.6	7.4	5.8	2.5	3.3	2.7	3.5	3.4
Germany	6.3	5.3	3.3	2.4	2.2	-0.1	0.2	1.3	2.8	2.7
Greece	24.5	21.0	20.2	18.5	19.3	23.0	16.4	13.5	13.7	20.4
Ireland	20.4	17.1	10.5	8.9	5.4	3.8	3.1	2.2	4.0	3.4
Italy	17.9	16.5	14.7	10.8	9.2	5.9	4.7	5.1	6.2	6.5
Luxembourg	8.1	9.4	8.7	5.6	4.1	0.3	-0.1	1.5	3.4	3.7
Netherlands	6.8	5.9	2.8	3.3	2.2	0.1	-0.7	0.8	1.1	2.5
Portugal	20.0	22.7	25.1	28.9	19.3	11.7	9.4	9.6	12.6	13.4
Spain	14.5	14.4	12.2	11.3	8.8	8.8	5.3	4.8	6.8	6.7
U.K.	11.9	8.6	4.6	5.0	6.1	3.4	4.2	4.9	7.8	9.5
Canada	12.5	10.8	5.8	4.3	4.0	4.2	4.4	4.0	5.0	4.8
U.S.	10.3	6.2	3.2	4.3	3.6	1.9	3.7	4.0	4.8	5.4
Japan	5.0	2.7	1.9	2.3	2.1	0.6	0.1	0.8	2.3	3.1

Source: International Financial Statistics.

* EC data does not include East Germany, unless otherwise noted.

Note: all currencies in this publication are stated in Canadian dollars unless otherwise noted.

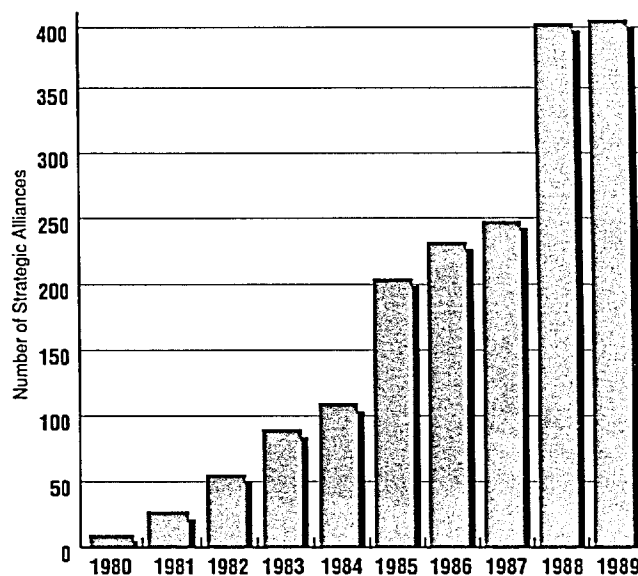
Europeans are the favourite partners

At present, approximately 70% of Canadian business alliances are made with other Canadian firms, but an increasing number are being organized with foreign companies. Of these, European firms are by far the most popular partners: according to one study, 15% of Canadian alliance partners are from Europe, 10% are from Japan and the Pacific Rim, while only 5% are from the U.S. As 1992 draws closer, strategic alliances with EC partners should attract an even greater number of Canadian companies.

There are good reasons for Canadian companies entering into European alliances. The creation of a European Single Market presents Canadian businesses with an opportunity to profit from a dynamic new market. And those who enter it will enhance their ability to compete both at home and abroad. Both Canadian and EC firms have found that strategic alliances are particularly well suited to the quickly changing, highly competitive and varied conditions found in the EC. Because Canadians and Europeans often share a common cultural heritage and similar managerial practices, trans-Atlantic alliances are relatively easy to implement.

Europeans fully recognise the crucial role that strategic cooperation between firms is playing in the development of their industries. During the 1980s, the number of strategic alliances formed by European firms increased dramatically. For example, between 1980 and 1989, European firms in biotechnology, information technologies, and advanced industrial materials developed 1,833 new strategic alliances. And that figure does not include more than 1,000 R&D alliances developed under EUREKA and EC programs such as ESPRIT, RACE and BRITE. The EUREKA program is of particular interest since it is both well-funded and open to non-European firms. EUREKA alone has arranged more than 250 R&D consortia, while ESPRIT has more than 500 consortia. Approximately 50 Canadian firms are active in such European consortia.

Strategic Alliances in Biotechnology, Information Technologies, and Advanced Industrial Materials with at Least One European Partner, 1980-89



Source: LAREA/CEREM data base.

The Single Market

European firms are emerging as powerful international competitors

The emerging Single Market is creating a new breed of European global competitors intent on penetrating North American markets. For example, Bull, the French computer company, has bought its computer businesses from Zenith and Honeywell. The Swiss food giant, Nestlé, and the Anglo-Dutch conglomerate, Unilever, have also been staking claims. Nestlé recently acquired RJR-Nabisco's candy divisions, nearly doubling its share of the U.S. candy market, while Unilever has recently made \$2 billion in new acquisitions in the U.S., carving out the third largest share of the U.S. cosmetics market.

The EC is by far the world's largest trading bloc, accounting for approximately 20% of world trade (excluding intra-EC trade). After integration, the EC market of 342 million will offer substantial economies of scale to manufacturers. Lower production costs and a broader consumer base will increase the ability of European industry to compete more effectively both in Europe and in global markets. Large companies will be able to take advantage of substantial economies of scale, while smaller companies will have improved access to Community-wide niche markets.

The European Monetary System has promoted price and exchange rate stability. It has also led to a convergence of the economic and monetary policies of the EC countries that participate in the Monetary System's Exchange Rate Mechanism. As a result, by 1989, most of the member countries were experiencing inflation rates below 6%.

Companies have already been positioning themselves for 1992. As long ago as October 1989, Frans Andriessen, the EC's External Relations Commissioner, told journalists: "For most Europeans, especially our businessmen, 1992 is already here. It is happening now. The simple statistic that the increase in Community investment last year was 7%, the highest for two decades, illustrates the galvanizing effect that the program is having on our economy." Canadian companies that want to compete in the EC should act now.

The move to a Community-wide market has already stimulated fierce competition. Many companies are unable to compete under these new conditions and are disappearing. Those that do prosper are emerging as powerful competitors in markets throughout the world.

Participating in the EC can provide Canadian companies with a competitive edge in the U.S. and other markets. Those who stay home and ignore the European opportunity are running the risk of losing their present revenues and market share to more aggressive companies who have developed the skills and technologies needed to compete anywhere in the world.

Creating the Single Market

European integration is a complex process that affects all areas of economic and political life including defense, education, human rights, and the environment. The key changes to be made are the elimination of physical, technical and fiscal barriers, the liberalization of capital movements, and the establishment of a monetary union. The EC is also removing the protectionist measures that affect public procurement. It has already eliminated tariffs on trade between member countries.

Removing physical barriers primarily involves removing customs controls, harmonizing public health regulations, and removing immigration and passport controls.

Removing technical barriers involves the harmonization of technical regulations and standards through the adoption of Community-wide standards and the mutual recognition of a wide variety of national manufacturing and testing standards. All products will have to pass essential safety requirements, whether or not they are traded between EC countries. They can then be circulated freely throughout the EC.

The industries most affected by technical trade barriers are:

- automobiles
- electrical and electronic equipment, including telecommunications
- machine tools
- pharmaceuticals, and processed chemical products
- non-ferrous mineral products
- metal products
- precision instruments and medical equipment
- transport equipment
- food and beverages
- leather goods

Patents and trademarks are subject to different conventions. Patents involve innovations and represent the technology base, whereas trademarks are marketing devices. It is best to register your trademarks in each country in which you trade. Currently, patent protection may be applied at the national level, or alternatively, through the European Patent Convention to which all EC Member States adhere, with the exception of Denmark, Ireland and Portugal. A Community-wide patent convention will likely be established by the end of 1991.

Removing fiscal barriers involves reducing the wide differences between value-added taxes (VAT) and between various excise duties. Most countries allow exports to be VAT free, but imports are charged both VAT and excise taxes on a selective basis.

The Liberalization of Financial Services

While there will still be some limits on international activities in the banking, securities, and insurance industries within the EC, extensive changes are being made. The centrepiece of the 1992 program in the banking field is the Second Banking Directive which will take effect on January 1, 1993. Under this directive, non-EC banks that establish a subsidiary in an EC Member State will be able to receive a Community-wide banking license. The Member State in which the bank's subsidiary is established will exert

Streamlining technical standards

In 1985, the EC Commission adopted a streamlined approach to technical standards harmonization and the development of industrial standards. Under the new approach, the EC's directives are limited mainly to mandatory essential safety requirements and other performance requirements in the interests of the general public. Technical details have been left to European standards organizations such as the European Committee for Standardization (CEN), its counterpart for electrical standards (CENELEC), and the European Telecommunications Standards Institute (ETSI). The involvement of large numbers of companies in the work of these standards organizations ensures wide acceptance of the outcome.

The European industrialists' organization (UNICE) noted that European standards do not have to be drafted from scratch. Normally, where an international standard already exists, it is converted into a European standard. Where European standards organizations have to develop their own standards, they are supposed to refer them to the International Organization for Standardization (ISO) with a view to having the new European standards adopted internationally.

Patents and trademarks

When the Community-wide patent system is adopted, applicants will no longer be subject to different legislation and fees. Companies will no longer have to pay renewal fees in each country, while national working requirements will be replaced with the proviso that the Community patent be used in at least one Member State.

These measures have been designed to complement the national systems rather than replace them which means that patentees will have a choice between taking a national patent or a Community patent. Where a company only needs to protect itself in two or three markets, it may be cheaper for it to get national patents in those specific countries rather than a Community patent.

Canadian companies would do well to register their trademarks in each country in which they trade. The EC has not yet adopted a new proposal that would provide for the creation of trademarks valid throughout the EC. The first Council directive aimed at harmonizing EC trademark laws was adopted at the end of 1988. It focused on approximating the terms of the Member States' trademark laws that most directly affect the functioning of the internal EC market. These include giving the owners of trademarks "exclusive rights," permitting them to prevent others from using an identical or similar sign where this use creates the "likelihood of confusion" for consumers. When disputes arise, the laws of Member States apply. (See *Europe 1992 and Intellectual Property Rights*, EA/TC, forthcoming).

home country control over the bank's affairs throughout the EC. The bank, in turn, will be free to open branches in other EC countries and to provide services within the range permitted by its EC home country.

The EC will apply the principle of "reciprocity" to banks from non-EC countries. That means that the EC will treat banks from a non-EC country the same way that it treats its own banks as long as that country does not discriminate against EC banks.

Initially, non-EC institutions were concerned that "reciprocity" would mean the EC would insist that its financial institutions abroad be permitted to carry out all the activities they are normally permitted to carry out within the EC; a range greater than is permitted in many countries. Critics warned that "reciprocity" measures of this kind would contribute to building a Fortress Europe. However, the EC did not go this route. Instead, the EC's reciprocity conditions only seek to ensure that EC institutions operating abroad receive the same treatment as local institutions.

Moreover, foreign banks established in the EC prior to 1993 will be considered as EC banks and enjoy the same rights as European banks. Thus, Canadian banks that have already established a subsidiary in the EC, that is a firm with its own corporate identity and function—not just a representative office—are well positioned for the future.

As in banking, the EC Commission intends to establish a single insurance licence that will enable companies legally established in one Member State to offer their full range of products in another Member State. There is, however, still some way to go. Freedom to offer services covering large industrial and commercial risks has been increased through the Second Non-Life Insurance Directive, while the Second Life Insurance Directive enables individuals to go abroad to shop for the best prices and coverage. However, the freedom to go abroad for the best deals in non-life, life insurance and private pension funds will apply to people who buy insurance, not to those who sell it.

Towards Monetary Union

The EC is now moving toward European Monetary Union (EMU). The European Monetary System (EMS), established in March, 1979, represented a major step towards monetary union. Its purpose was to create greater exchange rate stability among European currencies and promote economic integration. It has also contributed to the convergence of economic trends and policies among Member States.

The European Monetary System has three major components: the Exchange Rate Mechanism (ERM), which establishes predominantly fixed-exchange rates between the currencies of the participants;¹ the European Currency Unit (Ecu), which is a currency basket used at the centre of the ERM; and credit facilities which supply credit when necessary to fulfil ERM obligations. Each participating currency in the ERM is given a rate expressed in terms of the Ecu. A currency is then allowed to fluctuate on the market within a range of plus or minus 2.25% of its Ecu rate or, in the case of the British Pound Sterling and the Spanish Peseta, a range of plus or minus 6% of its Ecu rate.

European Monetary Union involves a more fundamental transfer of national sovereignty to the Community level than does the EMS. The first stage involves the elimination of barriers to the flow of capital, the membership

¹All of the countries presently in the EC except Greece and Portugal participate in the ERM of the EMS.

of all EC countries in the ERM, and increased economic cooperation and coordination between them. The second stage involves definition of a Single Monetary Policy and the creation of a European Central Bank (EUROFED) tentatively scheduled for January 1, 1994. The final stage calls for the implementation of a Single Monetary Policy and the creation of a common European currency.

Moving towards European Monetary Union is expected to reduce uncertainty associated with multiple currencies and increase price stability. It will also reduce the costs of currency conversion, an amount estimated at between \$18.3 billion and \$26.8 billion a year. In addition to having a positive economic impact on the Community, the process is a powerful symbol of the EC's successful drive toward economic integration and of its desire for further political integration.

Competition and anti-trust

Originally, the European Commission could not block mergers and acquisitions prior to their taking effect, but it did have some powers to act after the event. During the 1980s, however, pressure mounted for increased authority to police mergers at the Community level before they occurred. To this end, the Merger Control Regulation was adopted, entering into force in September 1990. It was originally thought that joint ventures were excluded from the scope of this regulation, but this changed with the European Commission's ruling on the joint venture between Mitsubishi of Japan and Union Carbide of the U.S.

The Merger Control Regulation monitors the potential anti-competitive effects of corporate concentration within the European Community, especially as 1993 approaches. The regulation's provisions apply only to those link-ups, mergers or acquisitions with a "Community dimension," i.e. where the aggregate worldwide turnover of all the undertakings concerned is more than \$7.4 billion and the aggregate Community-wide turnover of each of at least two of the undertakings concerned is worth more than \$371.5 million.

The Commission must be notified within *one week* of signing an agreement or launching of a tender offer. The Commission then has *one month* to decide if an investigation is necessary. And finally, the Commission has *four months* to investigate and provide a ruling on an agreement or tender.

The EC Committee of the American Chamber of Commerce in Belgium, had this to say about the change: "Rather than see the Commission intervene a posteriori... and take the risk of being forced to back down from an already effective concentration, business favors a rapid and confidential procedure by which Community-wide mergers could be definitely cleared by the Commission." (See *Europe 1992 Working Group Report on Competition Policy*, EAITC, January 1991).

The Mitsubishi-Union Carbide ruling: joint ventures now fall under EC merger controls

On January 7, 1991, the European Commission ruled that a joint venture between Mitsubishi of Japan and Union Carbide of the United States did not contravene the anti-competitive regulations of the EC. By doing so, it brought joint ventures under the European Merger Control Regulations for the first time. It is also the first time the Commission has made a competition ruling on a deal between two non-EC firms.

The joint venture involved Mitsubishi purchasing a 50% share in Union Carbide's UCAR Carbon Company and its 10 international subsidiaries. The joint venture is active in graphite, carbon and related products.

The European Commission ruled that control of the joint venture rests with neither parent company and that neither parent company remains active as a producer or trader in UCAR's markets. The venture was therefore found to be compatible with EC competition policy.

Effects of the key 1992 changes

Removing physical barriers

- will free the movement of goods and services within Europe
- will assure that a product can enter any EC country, once it has entered one of them

Removing technical barriers

- will allow unhindered distribution to all EC countries once a product has met the technical standards of one EC country
- will allow industry to produce for a wider market
- will open the public procurement market to competition

Removing fiscal barriers

- will eliminate the wide differences in indirect taxes that distort trade between Member States

Liberalization of capital movements

- will enhance competition and choice in financial services
- will make channeling savings into investment more efficient and less costly
- will give borrowers access to more diverse and cheaper financing for investment and trade within the EC

Monetary Union

- will reduce the uncertainty of exchange rate fluctuations
- will save on the costs of currency exchange
- will facilitate intra-EC trade
- will increase price stability

Beyond 1992

One indication of the business potential posed by the Single Market initiative is the array of European countries that want to be linked in one way or another to the EC. The countries of the European Free Trade Association (EFTA)² and the EC are presently negotiating the establishment of a common European Economic Area (EEA). In addition, Poland, Hungary and Czechoslovakia are negotiating to become associate members of the Community by the end of 1991.

EFTA consists of Austria, Finland, Iceland, Norway, Sweden and Switzerland. In December, 1990, the EC and EFTA reaffirmed their commitment to signing an agreement to establish the EEA by the summer of 1991. The EEA will lead to even deeper economic ties between the participants. The conclusion of such an agreement would result in a market of more than 375 million people, with minimal trade barriers, and would add an estimated one trillion dollars to the EC's already large GDP (four of the six EFTA countries have a higher GDP per capita than Germany).

The EEA would not only allow for the free movement of capital, goods, services and labour amongst the signatories, but would also result in the harmonization of competition policy and taxes; the simplification of border-crossing procedures; and special treatment of disadvantaged areas and groups of people.

While these negotiations are progressing, they have been complicated by differing views held by EFTA countries concerning the nature of the EEA: Austria and Sweden tend to see the EEA as an interim step to full EC membership (Austria has already formally applied) whereas Switzerland and Iceland tend to see the EEA as an end in itself.

In the latter half of the 1980s, the EC and the countries of Central and Eastern Europe concluded a number of trade and cooperation agreements, providing for trade benefits and financial assistance. Following the internal changes in Eastern Europe, the EC is now replacing these pacts with the more comprehensive "Europe Agreements". These will allow for deeper economic, political and cultural ties. The EC has also played a prominent role in the creation of the new European Bank for Reconstruction and Development which provides loans for projects in Central and Eastern Europe. Ultimately, the EC expects that closer cooperation will lead to integration of the EC and these countries into a continental free trade zone.

As a result, many firms are seriously considering using plants in Central and Eastern Europe as platforms for markets in both parts of the continent. General Electric (GE) has bought the Hungarian manufacturer, Tungsram, thus positioning itself to produce light bulbs for all of Europe. General Motors (GM) is investing \$200 million in Hungary and Czechoslovakia to produce motors for Opel cars while Asea Brown Boveri has recently bought a turbine manufacturer in Poland. Czechoslovakia, Hungary and Poland all have a large number of scientists and technicians, and a highly skilled work force that is available at a fraction of Western costs. Thus, access to additional European markets beyond 1992 is an added incentive for Canadian businesses to take advantage of the move to a Single Market.

² Liechtenstein, though not a full member of EFTA, is also involved in these negotiations.

Strategic alliances: the potential

Entering the sophisticated and varied markets of the EC is a challenging undertaking. Strategic alliances have become popular among companies because they provide many ways to turn the challenges of the EC's dynamic market into competitive advantages. Non-EC firms are finding that strategic alliances are often the most effective way of penetrating that market.

Certainly there are many opportunities for exporting Canadian goods into the EC. But exporting may not be the best way for Canadians to reap the benefits of 1992. A recent study showed that more than half of the fastest-growing manufacturing companies in the U.S. used non-trade modes of entry into foreign markets. In the service industry, this figure was virtually 100%. Instead of simply exporting, companies are penetrating foreign markets through strategic alliances, mergers and acquisitions, or greenfield investment.

Strategic alliances give firms access to additional resources and capabilities by sharing the high costs and risks of business, by participating in a division of labour appropriate to respective business strengths, and by better leveraging financial resources. Partners can contribute established marketing and distribution systems, as well as knowledge of the markets they serve. They ensure products get to market more quickly and more effectively. An EC partner can also give valuable advice on how to modify a product to meet local regulations and market preferences. They can help with such issues as translation of documentation, conversion of power requirements, and complying with packaging regulations. Using alliances inside the EC, even small Canadian firms can compete effectively in the large and diverse EC marketplace. Any linkages formed are restricted primarily by the company's ability to manage the relationship.

There are many types of alliances ranging from participation in an overseas joint venture to an exchange of products through a cross-licensing agreement. What they all share in common is that they can provide a firm with the technology, capital or market access it needs but might not be able to afford or achieve on its own. This allows a company to focus its own efforts on the activities that make it truly competitive.

Forms of Cooperation

Joint research and development projects and consortia reduce financial risks and provide access to technical expertise. They also allow firms to invest and participate in a wide variety of development efforts instead of putting all their eggs in one basket because of limited resources. Joint R&D efforts are a good way of combining the resources of firms, governments, universities, and consortia. They are most commonly used in basic or applied research before a new product is commercialized.

A **joint venture** is an independent business formed through the cooperation of two or more parent firms. Joint ventures have traditionally been used as a way of avoiding restrictions on foreign ownership when entering foreign markets. This may still be an important motive for many companies but there are other uses for joint ventures beyond simply getting around government regulations.

The central characteristic of a joint venture is that it is an equity-based relationship. Each parent has equity in the joint venture and is represented on the board of directors. One implication of this arrangement is that it is more difficult to terminate a joint venture than it is to leave other types of strategic alliance. Because the joint venture is a distinct corporate entity separate from its parents, it involves levels of organizational and managerial complexity that require some special considerations. Forming a joint venture with another firm only makes sense if the nature of the project requires commitments from the partners that go beyond the legal forms of a contractual agreement.

If the ownership of the joint venture is split 50-50, it is usually because the partners are about the same size and both want a significant voice in how the new company is to operate. A different equity split usually reflects unequal amounts of resources each parent company has committed to the new enterprise.

By itself, a **licensing agreement** is not usually considered to be a strategic alliance, though it can lead to a strategic alliance or be an important part of one. In a licensing agreement, a firm sells the rights to use its products or services. Since licensing transfers usage rights but not property rights, the licensor still retains some control over the product. Issues that are subject to negotiation include royalties, patents, sub-licensing possibilities, rights to sell and manufacture, duration of the arrangement, geographical limitations of the licence, exclusivity, and issues related to the updating of technology.

Cross-licensing is a strategic alliance between two firms in which each licenses products or services to the other. Today, many companies are exchanging the rights to use their products or services with each other.

Both licensing and cross-licensing are relatively straightforward ways for companies to share products or expertise without the complications of closer collaboration. However, because they do involve less cooperation, they hold out less promise of achieving a synergy where cooperation sustains a whole greater than the sum of its parts.

Cross-manufacturing agreements are a form of cross-licensing in which companies agree to manufacture each other's products.

For SMEs: European economic interest groups

In 1989, the European Community created a new legal instrument that facilitates cross-border cooperation between small- and medium-sized enterprises (SMEs) in such areas as R&D, purchasing, production, sales or computerized data processing. The new instrument is known as the European Economic Interest Group. The EEIG is set up by contract rather than by incorporation. The Community regulation creating this instrument imposes only minimal obligations with regard to the organization and management of the group and allows for various different financing arrangements. In fact, the regulation does not have a requirement that the grouping be formed with capital.

Through the use of EEIGs, small businesses can achieve economies of scale and reduce risks without the cost of setting up their own facilities, branches, or subsidiaries and without investing in the development, production, or marketing of the full range of products required for effective competition.

Canadian firms may participate in EEIGs if they are already established and active in the Community. While the official address of the EEIG must be in the EC, the principal activity of the EEIG does not have to be located within the Community.³ (See *Europe 1992 and Company Law*, EAIC, January 1991)

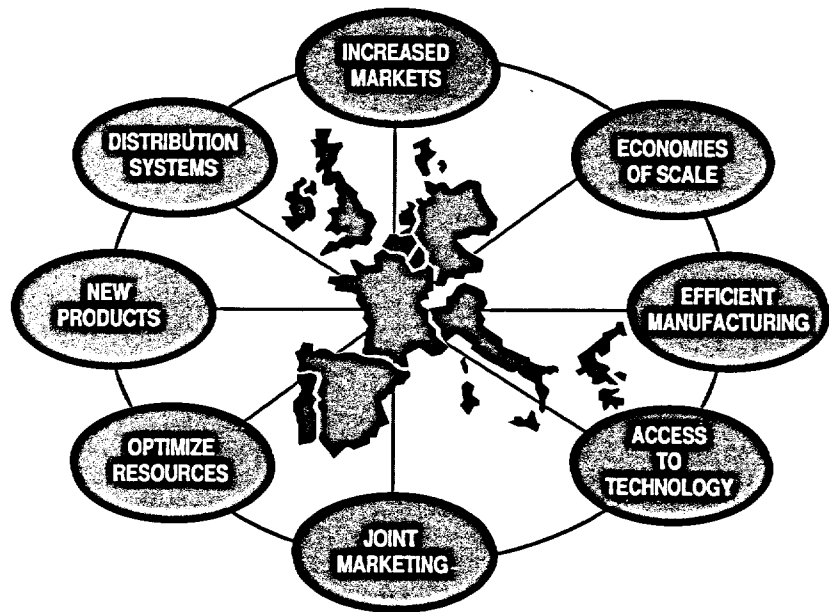
³ Commission of the European Communities (1989), *The European Economic Interest Grouping (EEIG) A New Instrument for Economic Cooperation in the Community* [Brussels: European File, 6/89, April].

In *co-marketing or co-promotion agreements*, companies cooperate to market or promote each other's products. An agreement could involve cross licensing, a shared promotion campaign, or even the formation of a joint venture to market each other's products. Most do not involve licences or royalties, but some rights to the product may be worked into the agreement. Co-marketing is also done on a fee or percent of sales basis.

For firms wanting to enter new markets, a co-marketing agreement is an effective way to take advantage of existing distribution networks and an ally's knowledge of local markets. It allows firms with complementary products to fill out a product line while avoiding expensive and time consuming development.

In *joint production agreements*, companies cooperate in order to produce goods. These agreements enable firms to optimize the use of their own resources, to share complementary resources and to take advantage of economies of scale. Companies may cooperate to make components or even entire products.

Many engineering firms have entered into joint production agreements with firms that have manufacturing expertise, while, in the auto and the telecommunications industries, it is common for competing firms to form an alliance to make components they all need.



Acquisitions or alliances

Mergers and acquisitions (M&As) are a common way for companies to position themselves in the Single Market. M&As are particularly important for companies seeking greater economies of scale. They also allow EC companies to gain the size and diversity that will enable them to compete both at home and abroad with their larger Japanese and American competitors.

Yet M&As in the EC need to be understood within a proper context. Firms in continental Europe tend to be smaller than in North America. They are more often closely-run, family-held affairs. They also have a long history of cooperating to take on larger projects. This means that they are predisposed to cooperative ventures but they tend to view hostile or foreign takeovers more negatively than do North American companies. Successful M&As in the EC tend to take place between firms that know each other long enough to trust and respect each other. For example, in the 1980s, the rate of domestic M&As among the largest 1000 EC firms was about twice the rate of their cross border M&A activity.

By the same token, strategic alliances between European firms from the same country tend to include equity arrangements more often than partnerships between firms from different Member States. An even smaller proportion of strategic alliances between EC and non-EC firms involve equity.

U.K. companies are not as suspicious of takeovers as are their continental cousins. Because their corporate culture, share structures and accounting practices are similar to those of North America, M&As are easier in Britain than on the continent. For similar reasons, British firms interested in expansion have tended to look to North America.

Domestic and Cross-border Take Overs: Different Motivations

	Domestic	Cross Border
Entry to new markets	10	35
Horizontal expansion	20	25
Economies of scale	20	10
"Good buy"	20	10
Product diversification	13	10
Vertical expansion	7	5
Other	10	4

Source: Centre for Business Study, London Business School, 1990.

If you want to acquire an EC firm, especially a continental one, it makes sense to develop a cooperative business relationship with it first. This gives both companies a chance to develop trust and respect for each other and to assess the real advantages and disadvantages of a merger or acquisition.

There are a number of other factors that make acquisitions in the EC more difficult than in North America. Because of unique share structures, stock swaps are impractical, and so acquisitions usually require cash. Accounting practices also vary, the necessary information is often hard to get, and valuations often require extensive investigation. Public companies in the U.K., France, Germany, and Italy are well documented, but most Member States do not have information sources such as Standard & Poor's directories, Dun & Bradstreet reports, or the American 10-K forms. On the other hand, banking institutions take a more aggressive position both in supplying information and in assisting M&A activity than they do in North America.

Less Distance, More M&As: EC Mergers and Acquisitions, 1987/88

Sector	National		Community		International		Total	
	M	A	M	A	M	A	M	A
Industry	214	115	112	37	57	29	383	181
Distribution	40	13	8	4	9	5	57	22
Banking	53	38	12	15	13	28	78	81
Insurance	14	8	14	4	12	7	40	19
Total	321	174	146	60	91	69	558	303

Source: Commission of the European Communities, 1989.

M&As in the EC by Canadian firms

Canadian firms are participating in the EC's wave of M&As. This is especially true in the luxury goods market where Seagrams has taken over Augier Frères [brandy], Martell [cognac], Mumm and CIE [champagne], and Perrier Jouet-B&G [champagne]. Hiram Walker of Ontario took over Courvoisier [cognac] and Zanimob of Quebec has taken over Pierre Balmain [haute couture], Jean Desprez and Jean d'Avez [perfumes].

Canadian high technology companies have been active too. Quebec's LGS Group acquired a 75% interest in Anabel SA, a leader in computer management systems for retailing companies in France. In the transportation sector, Bombardier has acquired ANF Industrie, a railway car manufacturer which employs 1,150 persons in Northern France.

The Further From Home, The Fewer the Equity Arrangements (in percentages)

Type of Alliance	Intra-EC	EC-USA	EC-Japan	Total
No equity alliance	35.6	52.8	64.0	45.3
Joint Venture	16.5	16.2	25.0	17.1
Minority holding	11.0	7.7	5.5	9.2
Majority holding	36.9	23.2	5.5	28.4
Number of cases	699	581	128	1408

Source: LAREA/CEREM data base, 1980-89.

M&As require matching companies, corporate cultures, products and distribution systems. They are therefore slow to set up. Much depends on finding the right fit and that takes time. Locating the acquisition can take two to five years: too long if the purpose is to take advantage of the quickly evolving Single Market. Companies that want to cover more than one of the still quite diverse markets in the EC, may have to make more than one acquisition. This is expensive, especially when, for the cost of a single acquisition, you could develop as many as three strategic alliances. A failed acquisition is much more expensive than the failure of a strategic alliance. For example, a failed joint venture usually costs about 25 to 35% of the cost of a failed acquisition.

M&As do make sense if a substantial amount of corporate revenue already comes from European markets. Otherwise, they tend to be too costly and time-consuming. Strategic alliances, on the other hand, tend to be flexible instruments with a more far-reaching appeal to Canadian companies seeking to take advantage of the Single Market. Even when acquiring an EC firm does make good business sense, strategic alliances are often an important first step in the process.

II. The EC-Canada Relationship: Unrealized Potential

The EC-Canada relationship: unrealized potential

While the trade and investment relationship between Canada and the EC is already enormous, there is potential for even greater growth. This chapter is about the nature of the existing business relationship between Canada and the EC. The remainder of the book describes how Canadian companies can build on this relationship by using strategic alliances.

Canada has strong ties with Europe. We are allies in NATO and we share numerous diplomatic, cultural and academic linkages. In 1976, this special relationship was documented in the Canada/EC Framework Agreement for Commercial and Economic Cooperation which was intended to stimulate trade between our two regions. Within that framework, Canada and the EC have expanded their links to include other dimensions such as industrial, scientific, and technological cooperation.

The EC is our second largest trading partner. In 1990, Canada's total trade with the EC (imports and exports) reached \$27 billion. Canada's total trade with the U.S. was \$193 billion and with Japan it was \$17.7 billion. There is a lot of scope for expanding Canada's trading relationship with the EC. The EC receives only 10% of Canada's total domestic exports, while more than 70% goes to the U.S.

For years, wood pulp, lumber, iron ore, fish, and newsprint were Canada's top exports to the EC. Now, higher value-added products have gained in importance. Office machines and equipment have grown dramatically. In 1990, they ranked third among our exports to the EC, with a value of over \$437 million. At the same time, organic chemicals, aircraft parts, and aircraft engines have continued to grow steadily in importance.

Share of Canadian Imports in Selected EC Countries (percent of total imports)

	U.K.	France	Ireland	Italy	Germany
1980	2.5	0.7	1.1	1.1	0.7
1981	2.7	0.7	1.5	1.0	0.6
1982	2.3	0.6	1.0	0.8	0.6
1983	2.2	0.6	0.9	0.6	0.6
1984	2.1	0.6	0.8	0.6	0.6
1985	1.7	0.5	0.6	0.5	0.5
1986	1.8	0.6	0.5	0.5	0.4
1987	1.7	0.6	0.7	0.5	0.4
1988	2.0	0.6	0.9	0.6	0.5
1989	1.9	0.6	0.7	0.7	0.5

Source: IMF, Direction of Trade Statistics.

With the exception of crude oil from the United Kingdom, Canada's top ten imports from the EC are primarily value-added items. Airplanes, automobiles, auto parts, and organic chemicals are especially significant.

In the last decade, our exports to the EC have increased only slightly, despite a generally favourable Canadian exchange rate. In the meantime, our share of merchandise imports in the major EC markets has actually declined.

While slower economic growth in Europe may be responsible in part for this performance, the figures suggest that Canadians must be more aggressive if they are to capitalize on the opportunities offered by the development of the Single Market.

Canada's Exports to the EC by Commodity (\$ millions)

	1980	1988	1989	1990*
Live animals	10.8	12.8	19.2	19.0
Food, feed, beverages and tobacco	1,253.2	1,067.1	932.8	1,002.2
Crude materials, inedible	2,114.6	2,075.4	2,203.6	2,170.5
Fabricated materials, inedible	4,763.4	5,119.3	5,826.4	5,643.5
End products, inedible	1,384.9	2,413.1	2,502.0	2,640.3
Special transactions**	0.1	23.6	39.3	32.0
Total Domestic Exports	9,527	10,711.3	11,523.2	11,507.9

* Preliminary data.

** Special transactions trade consists of small value goods and all other transactions aggregated because of confidentiality.

Source: Statistics Canada.

Canada's Top Ten Imports from the European Community, 1990

Rank	Commodity Descriptions	Value (\$ '000)	(%)
1	Crude petroleum	2,005,259	12.9
2	Passenger automobiles and chassis	717,397	4.6
3	Organic chemicals	461,496	3.0
4	Aircraft, complete with engines	414,292	2.7
5	Other special industry machinery	384,741	2.5
6	Other beverages	346,142	2.2
7	Motor vehicle parts, except engines	330,454	2.1
8	Other end products, inedible	301,242	1.9
9	Footwear	282,353	1.8
10	Medicinal & pharm. prod., in dosage	247,216	1.6
Total Imports from the EC		15,573,789	100.0

Note: preliminary data.
Source: Statistics Canada.

The Investment Relationship

Canada's economic relationship with the EC goes far beyond trade. It includes growing investment links developed by many companies as an extension of their trading activities.

Investment is now the driving force behind international trade and technological progress. Many firms use it to position themselves more competitively in a market. Investments can take the form of mergers, acquisitions, greenfield investments in new plant and equipment, as well as joint ventures and other forms of strategic alliances.

Direct investment in Canada by EC firms more than doubled from 1986 to 1989, making the EC Canada's second largest source of foreign direct investment after the U.S. Traditionally, the U.K., the Federal Republic of Germany,

the Netherlands and France have followed the U.S. as Canada's principal suppliers of direct investment.

Between 1980 and 1988, the flow of Canadian investment to the EC was uneven. Nevertheless, from 1983 to 1988, the stock of Canadian direct investment in the EC more than doubled. The future challenge facing Canadian firms is to increase their rate of investment in the EC as part of their efforts to capitalize on the EC Single Market.

In the past, all too few Canadian businesses exploited opportunities for investment overseas. Today, growing investment by Canadians in the EC offers evidence of a long term commitment by Canadians to developing the very real potential in our relationship with the EC. With increasing global competition, our long term prosperity depends on it.

Canada's Top Ten Exports to the European Community, 1990

Rank	Commodity Descriptions	Value ('000)	(%)
1	Wood pulp and similar pulp	1,647,742	14.3
2	Lumber, softwood	824,716	7.2
3	Office machines and equipment	437,731	3.8
4	Newsprint paper	423,656	3.7
5	Other metals in ores, conc. & scraps	417,360	3.6
6	Iron ores and concentrates	400,866	3.5
7	Copper and alloys	397,492	3.5
8	Precious metals, including alloys	346,518	3.0
9	Aircraft, engines, and parts	335,193	2.9
10	Zinc in ores, concentrates and scrap	240,075	2.1
Total Domestic Exports to the EC		11,507,872	100.0

Note: preliminary data; does not include re-exports.
Source: Statistics Canada.

The EC is Not Becoming Fortress Europe

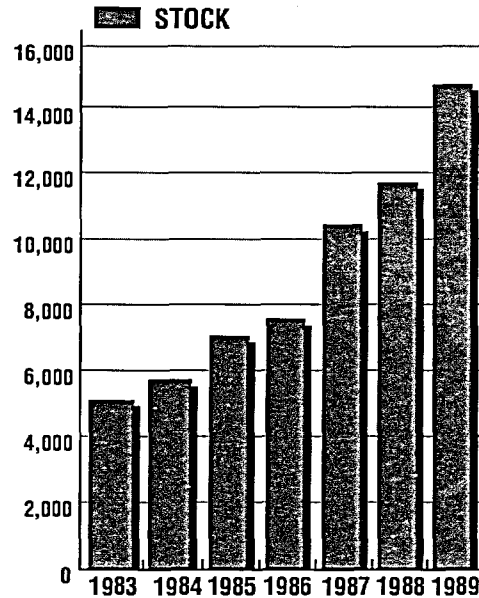
Both Canada and the EC recognize that strengthening their relationship is a matter of mutual advantage. Canadians need not worry about the possibility that the EC will build a Fortress Europe which they cannot enter.

It is true that the EC has technical standards and rules of origin that may impede the efforts of companies wanting to export to the EC. In the case of rules of origin, as much as 80% of the content of some products, such as electronics and automobiles, may have to be built in the EC to qualify for internal customs exemptions. But it is unlikely that the EC will use these provisions to shut out external competition. Such an action would not be in its best interest since its trading partners would undoubtedly retaliate. The EC is more dependent on foreign trade than any other economic bloc and it could not afford serious losses of export revenues, nor any reduction in its participation in the world-wide exchange of high technology. The EC clearly recognizes this. In fact it is opening up its relationship with the EFTA countries and Eastern Europe, and it has expressed strong interest in developing closer ties to Canada and the United States.

What protectionist measures do exist are aimed at the Japanese. Because of perceptions that Japanese markets are not open to foreign penetration, attempts have been made in countries such as France and Italy to curtail Japanese activity. Similar measures have not been aimed at Canadian and American firms because their home markets are relatively open to international trade and investment. Even in the case of Japan, however, it should be remembered that the U.K. has welcomed Japanese acquisitions of British companies, and the Germans have been forming alliances with their Japanese rivals (the Mitsubishi-Siemens alliance, for example).

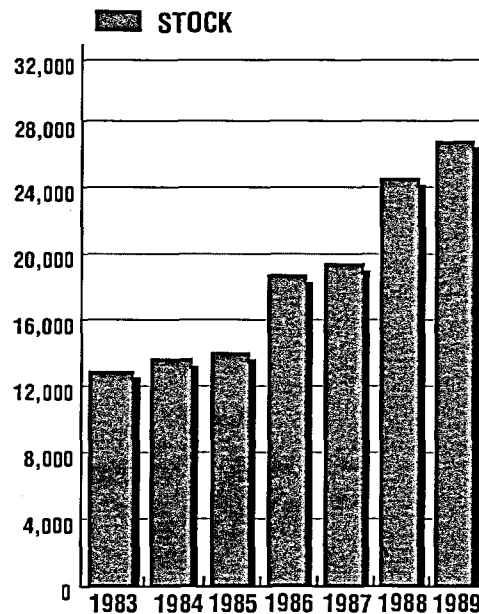
The EC-Canada relationship is too valuable for either side to consider implementing actions that might harm it. Furthermore, interviews with European business people show that they are ready and eager to do business with Canadians.

Canadian Direct Investment in the European Community (\$ millions)



Source: Statistics Canada.

Foreign Direct Investment in Canada from the European Community (\$ millions)



Source: Statistics Canada.

III. Strategic Alliances: Today's Business Tool in Europe

Alliances are popular

The EC actively promotes alliances

Patterns in EC alliance formation

Alliances are popular

Canadian companies will find that both large and small European firms are open to partnering with other firms. Large European firms are favourably disposed to strategic alliances for historical reasons. European competition laws were traditionally much less stringent than those in North America, allowing large corporations more latitude to cooperate among themselves. Strategic alliances are also common among the many family-owned, small- and medium-sized firms in Europe.

R&D partnerships have played an important role in enhancing the competitiveness of EC corporations. Innovation in products, processes, marketing, and management has become the basis for competitive advantage. With the costs and risks of R&D skyrocketing, EC companies have made extensive use of R&D alliances, pooling their skills and resources in order to achieve technological excellence.

Production and marketing agreements have meant that EC firms have been able to use the emerging Single Market for competitive advantage. Production agreements have allowed many European firms to achieve economies of scale and to offer a wider range of products than they could cover on their own. Marketing agreements have enabled them to make use of each other's distribution systems and knowledge of local markets.

The Japanese began using strategic alliances about half a century before Canadians did; the Europeans and Americans also started using them several years before we did. Even so, Canadian companies have been gaining considerable skill in forming strategic alliances. They have become full participants in a business environment characterized by technical collaboration, partnerships, and alliances with both domestic and foreign firms.

Of course, a few cooperative technical agreements have existed for decades in Canada in areas such as pulp and paper research, nuclear engineering or heavy electrical equipment. But the sheer number of alliances formed by Canadian companies since the mid-1980s points to a new phenomenon. Partnerships have developed by the hundreds, not only in technologically dynamic industries such as electronics, pharmaceuticals, chemical, and aerospace industries, but also in the more traditional sectors of transportation equipment, metal refining, and forestry.

Strategic alliances are not the exclusive preserve of large firms such as Northern Telecom, Bombardier, or General Motors of Canada. In fact, studies show that more than 80% of the firms active in strategic alliances are either small- (fewer than 100 employees) or medium-sized (between 100 and 1000 employees).

There are several reasons for the intensification of alliance activity by SMEs. First, Canada has only a few giant firms in each industry. In some industries such as biotechnology, telecommunications equipment, or chemicals, there is only one large Canadian champion. These large firms tend to gather at least some SMEs around themselves. Second, in many industries, smaller Canadian firms are customized producers of small batches; they usually work in close cooperation with clients who may be located in various countries. These companies know how to cooperate on R&D projects and are able to formalize agreements with their suppliers, clients and competitors. Third, even large corporations often do not have the critical mass needed to complete an R&D project alone. For SMEs, cooperation is a matter of life and death in markets characterized by rapid technological change, the overnight entry of new competitors, and hastened product obsolescence.

Perhaps as many as half of all Canadian strategic alliances have been encouraged by some level of Canadian government (federal or provincial), by a government lab, or by a Crown Corporation. Some are financed by a public program such as the Industrial Research Assistance Programme (IRAP) of the National Research Council of Canada, the Ontario Technology Fund or the Fonds de développement technologique in Quebec. Such alliances are often focused on pre-competitive research. Alliances funded and organized by the companies themselves tend to be more focused on the development of new or improved products and processes. They often include European or Asian partners who have approached Canadian firms because of their reputation in a particular field. These alliances tend to be more costly and, because of their strategic importance, less publicized than the government-funded alliances.

Studies show that about 30% of the alliances Canadian firms form are with foreign companies, and the number is increasing. Of these, European partners are by far the most common.

Of course, there are inevitable problems that arise in managing an alliance between Canadian firms and EC partners. Different languages, legislative frameworks, market structures, customer preferences, business cultures, and communication and transportation costs are the most common problems encountered by Canadian alliance partners in Europe. Canadian executives report that distance and some level of initial mistrust from the European side are the most difficult problems they have faced in forming alliances. But these problems have not detracted from the benefits Canadian firms have garnered from cooperative activities in the EC.

The EC actively promotes alliances

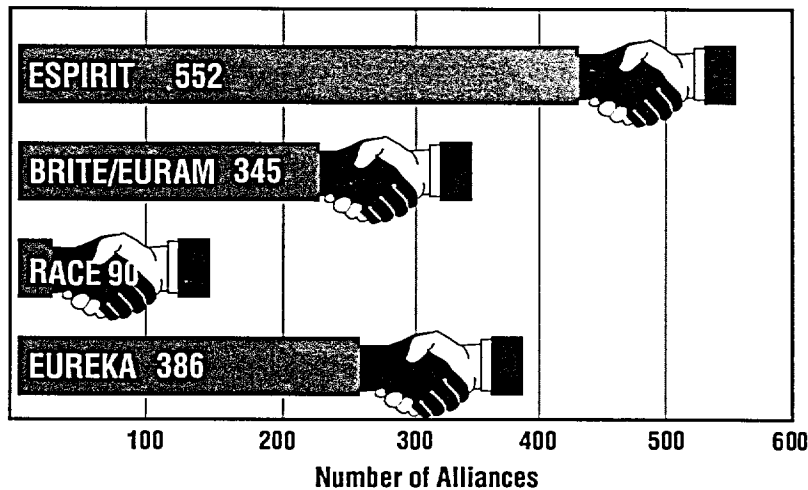
The EC itself has actively promoted the formation of inter-firm collaborative agreements since the early 1980s. As a result, EC firms have developed sophisticated collaborative skills and are quick to recognize the strategic advantages of partnering. Canadian firms looking for European partners will find that their job has been made that much easier.

The first European program to promote strategic alliances was the European Strategic Program for Research and Development in Information Technology (ESPRIT). It was launched in 1983 and is currently in its second phase. It was followed quickly by RACE, a program that promotes strategic partnerships in the telecommunications industry. Many others have arisen since. In order to participate, non-EC firms must have at least an EC subsidiary and even then it is not clear that they will be permitted to participate. But Canadian firms can take advantage of these programs through some sort of an alliance with an EC partner, most likely an alliance that includes some form of equity arrangement.

By contrast, EUREKA is open to non-European companies. Launched initially by the EC and EFTA countries in 1985, EUREKA is a well-funded program that has included a number of successful Canadian participants.

European Programs Have Led to Over 1000 R&D Alliances for EC Firms

(as of January 1, 1991)



* This is the total of all alliances formed since the beginning of each program, including projects that have been completed

Source: LAREA/CEREM (Paris) database.

Preserving autonomy, enhancing competitiveness

BIOSERAIE is a small French biotechnology firm involved in the research, development and marketing of innovative pharmaceutical products. Faced by high R&D costs and a world market that is dominated by large multinational enterprises, Bioseraie felt that it needed to find a large partner or allow itself to be absorbed by one of the giants which could then supply the technical and financial resources needed to develop Bioseraie's products.

Bioseraie chose to protect its autonomy. It approached its main raw materials supplier, the large French petrochemical company, Elf Aquitaine. The resulting deal has benefited Bioseraie both financially and technologically. Elf Aquitaine bought a minority holding (34%) in Bioseraie and is also helping in the development stage of Bioseraie's products.

Successful ESPRIT projects

Software Production and Maintenance Management Support:

This program designed a new type of information system for managing the development of software products. It was initiated by a number of medium-sized French firms and Siemens was the prime contractor. When Siemens withdrew from the project in 1986, it was replaced by the French firm TECSI and a Spanish firm with which one of the partners had wanted to build closer ties. By the end, the project involved five SMEs and no large firms.

Automatic Control Systems:

This program has contributed to the development of more competitive microchip production equipment and systems. It also contributed to the implementation of new standards in its area. The technology involved is at the leading edge of automatic wafer fabrication sequence control systems for plasma etching. It was initiated by European Silicon Structures (ES2), a consortium with its own wafer fabrication line. All of the partners, Soci t  Bertin (France), European Silicon Structures (ES2) (France), Leybold A.G. (Denmark), Mietec (Belgium) and Plasma Technology Ltd (U.K.), were SMEs.

European Alliance Programs

BRITE/EURAM, which stands for "Basic Research in Industrial Technology for Europe and European Research in Advanced Materials," was founded in 1989 and will end in 1992. The program has a total budget of \$648.4 million for the development of R&D consortia in advanced materials technologies, design methodology and quality assurance for products and processes, application of advanced conventional manufacturing technologies and manufacturing processes for flexible materials (i.e. textiles), technologies for manufacturing processes and aeronautics. Firms and universities established in either the EC or the EFTA countries are eligible.

RACE means "Research and Development in Advanced Communications Technologies in Europe". It is focused on Integrated Broadband Communications (IBC) and the development of technology for commercial IBC services to be introduced in 1995. The RACE program is designed to lay the future foundations of the Community's communications infrastructure. It covers all aspects of terrestrial networks, satellites and mobile telecommunications, and it involves all European telecommunications operators, service providers and equipment manufacturers. The 90 consortia established under the RACE program involve 306 organizations including universities, telecommunications administrations and private companies, 130 of which are small- and medium-sized businesses. RACE 1 is scheduled to run from 1987 to 1992 and has a budget of \$841.5 million. The RACE 2 budget is contained in the 1990-94 EC Framework Programme and will overlap with the end of RACE 1.

ESPRIT has been the largest, longest and most successful of the EC programs to date. It stands for European Strategic Program for Research and Development in Information Technology. ESPRIT 1, which lasted from 1984-88, had a budget of \$975 million. ESPRIT 2 began in 1988 and will last until 1992, with a budget of \$2,321.6 million. The focus for ESPRIT is microelectronics, information processing systems, office and business systems, and computer integrated manufacturing. The program is open to firms established in the EC and EFTA countries.

The EUREKA Program was created in 1985 on the basis of a proposal by French President Francois Mitterrand. The current EUREKA program spans the years 1989-1992. EUREKA is not an EC program, and it has no central fund as do the EC programs. Rather, the funds are contributed and administered by each of the 20 countries involved in the program. The countries pay a portion (usually less than one third) of the costs of participation by their companies or research institutes. The members of EUREKA include the 12 EC countries, plus Sweden, Austria, Switzerland, Norway, Finland, Iceland, Turkey and the EC Commission. EUREKA is open to non-member firms and institutes so long as they are in partnership with at least two European firms.

Several Canadian firms have joined EUREKA projects and several American firms have joined the EUREKA Prometheus projects. The latter is the Program for a European Traffic with Highest Efficiency and Unprecedented Safety, which involves development of electronic road traffic and pollution control systems. IBM is involved in the JESSI project on semi-conductors. French firms are involved in a biotechnology project with Argentinians. Most EUREKA projects are focused on robotics, information technologies, environment and biotechnologies although there are a number of important projects in transportation, energy and lasers. The Eureka Secretariat is located at Avenue des Arts 19 H, Bte 3 B1040 Brussels. Tel: 32 (2) 217.00.30 and FAX: 32 (2) 218.79.06.

EC Regional Programs

Many EC regions have programs that can help Canadian companies locate potential partners and set up effective alliances. For example, the Agency for Corporate Development is the main office that assists foreign firms interested in either locating in Ile de France or forming partnerships in the region. The Rhône-Alpes also provides effective services. Perhaps the region with the most comprehensive approach, however, is Baden-Württemberg.

Baden-Württemberg's State Development Corporation (LEG) is an excellent example of the kind of support EC regions are beginning to give to outside firms. It assists foreign firms that intend to locate there or that intend to enter into cooperation with a company from the region. All of its staff speak English and its services are free of charge. They fall into five categories:

1. Partner search

LEG has a list of more than 300 companies from the region which have indicated an interest in finding a partner, in some cases explicitly requesting that it be an overseas firm. These companies come both from technological-oriented and consumer goods industries. If none of the firms on the list is suitable, then LEG conducts a targeted partner search among the region's industrial and trading companies, based on the specific needs of the foreign firm.

2. Location search

LEG can propose a selection of specific sites to satisfy the needs of the foreign firm. The agency can then provide support in negotiating with the State and local authorities, including a discussion of financial incentives.

3. R&D partner search

LEG has experts in R&D management that can help firms define their needs and identify the research institute that has the right know-how and experience. They can provide contacts and support during subsequent discussions with research institute experts.

4. Supplier search

LEG has industry experts that provide a list of firms manufacturing the products an investor needs and will put the investor in touch with the ones chosen.

5. General product support

LEG can also provide on-going support during the entire course of a project. The agency's project managers can help firms not only in the planning stage but in their implementation too. They provide the necessary information and contacts, and support firms during negotiations with partners, public authorities and the banks, also helping to put together the financing package.

A few EUREKA projects that include Canadian participation.

EUREKA 5: "Membranes for Ultra Micro Filtration UF/MF Module" is concerned with the development of membrane systems for the production of drinking water and for the treatment of waste water. Cost: \$53.5 million. Duration: 78 months. Participants: Danske Sukkerfabriker (Denmark) Lyonnaise des Eaux (France) Zenon Environmental Inc.(Canada)

EUREKA 20: "Eureka Advanced Software Technology" is developing software engineering factories constructed around the UNIX System V and the Emerald acceptance structure, the industrial version of the ESPRIT PCTE prototype. Cost: \$341.2 million. Duration: 84 months. Participants: Société Française du Génie Logiciel, a subsidiary of CAP-SESA (France) Bull, CISI, Sema-Group and Steria (France) Nokia (Finland) **DMR (Canada)** LPS, INTECS, DATAMAT, and Bull-Italia (Italy)

EUREKA 226: "Eurolaser" is a consortium for the development of a high power solid-state laser system. Cost: \$84.2 million. Duration: 72 months. Participants: Quante (France) Haas (Denmark) Laster Quanta (Spain) ADALS (France) Setenia (Italy) Q.ARC (UK) **National Optics Laboratory (Canada)** **GENTEC (Canada)**

Patterns in EC alliance formation

Alliance formation in the EC has changed dramatically in the last ten years. Alliances have become more complex and their functions have become more varied. The accompanying graph shows that, by the end of the 1980s, there was an enormous growth in all types of alliances, but especially in the number of "multifunctional" alliances: alliances that include cooperation in R&D, production and marketing. Most of the ones classified as "other" are agreements between firms concerning technical standards.

In the early 1980s, American firms were the preferred partners of EC companies. By the mid-1980s this had begun to change. Since then, as a prelude to 1992, EC firms have been increasingly forming alliances with other EC firms.

Alliances between EC firms tend to be different from the alliances EC firms form with U.S. or Japanese companies. Over half of the alliances between EC firms are multifunctional. While R&D alliances are common, EC firms tend to form few alliances that are focused only on production or marketing. Multifunctional collaboration is also common between EC and American firms and much of it includes equity arrangements. Alliances between Japanese and EC firms have focused more on production. There is a recent Japanese trend, however, toward setting up R&D centres in the EC. Many of the initial Japanese plants in Europe were "screw driver" plants that simply assembled components made elsewhere. The move toward doing R&D in Europe is motivated by the fear that the Japanese will be discriminated against after 1992 since the EC is interested in companies that produce value-added.

Americans Are The Favourite Non-EC Partners (percentage)

YEAR	U.S.	JAPAN	OTHER
1980	40.0	0	0
1981	30.4	13.0	8.7
1982	48.1	5.6	5.6
1983	51.6	5.5	7.7
1984	46.4	9.6	6.4
1985	40.7	9.3	7.8
1986	39.2	9.5	9.1
1987	28.1	5.6	10.8
1988	28.8	6.2	11.9
1989	30.1	6.8	14.3

Note: this data is based on a survey of 1833 firms.
Source: LAREA/CEREM (Paris).

Alliances – More Complex and Diverse

Year	R&D	Production	Marketing	Global	Other
1980	0	2	0	3	0
1981	12	0	3	8	0
1982	19	9	8	18	0
1983	26	19	15	31	0
1984	28	25	19	49	4
1985	52	37	39	67	9
1986	73	32	27	90	10
1987	61	30	39	118	1
1988	81	42	84	186	10
1989	44	78	57	225	8

Figures indicate EC alliances formed outside of EC alliance programs

Note: Alliances that involve two functions (e.g. R&D and production, but not marketing) have been entered twice (under R&D and under production), but alliances involving all three functions have been listed only once under "global." The drop in the number of R&D and commercial agreements in 1989 reflects the movement towards global agreements rather than a movement away from any one of the categories.

Source: LAREA/CEREM (Paris) data base.

Alliance patterns are also different from one industry to the next. For example, significantly more alliances in the biotechnology sector involve R&D than in the next largest R&D sector, information technologies. There are also relatively few R&D-based alliances in the materials sector. Marketing agreements, on the other hand, are far more important in the information technologies industry than in biotechnology or materials. More than any other sector, alliances in the materials industry tend to be production-oriented.

Within each industry, alliance patterns also differ. In the information technologies industry, for example, alliances between EC firms are more concerned with R&D, while EC-American alliances are often vehicles for market penetration involving either European firms eager to enter the U.S. market or American firms wanting to take advantage of the Single Market. On the other hand, EC-Japanese alliances in the information technologies sector are fairly evenly distributed between R&D, production and marketing, although these alliances do not include all three functions nearly as often as do intra-EC and EC-American alliances.

IV. What to Consider When Forming an Alliance in the EC

Carefully defining a target

Shaping your strategic alliance

Finding a suitable partner

Sources of help

Financing your entry into the EC

Negotiating a deal

Working within a different culture

Training for Europe

Carefully defining a target

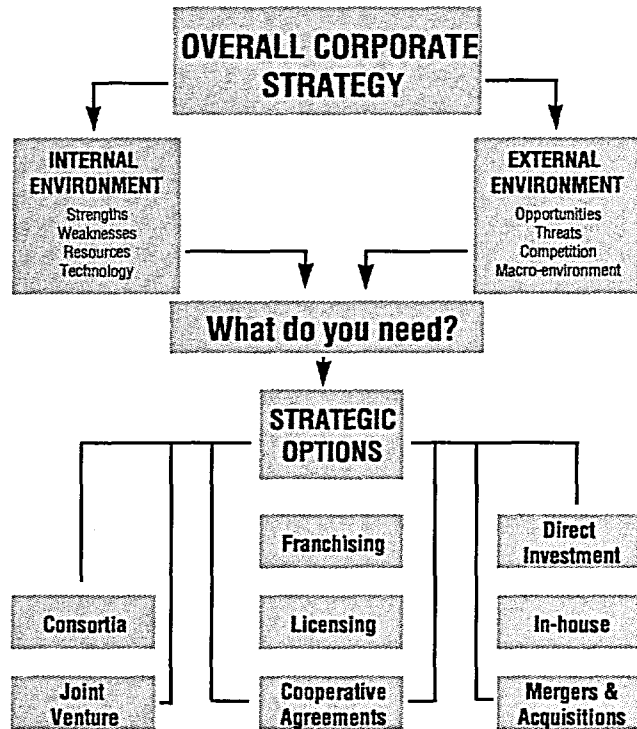
In itself, an alliance cannot give your company a strategic direction. The decision to engage in a partnership is an important move that should be part of an overall corporate strategy. A careful and detailed examination of the reasons for entering an alliance makes good business sense. Rushing into an alliance in the hope that synergies will somehow evolve does not. Too many firms underestimate the amount of work that is involved in establishing a successful alliance.

Do you really need a partner? Selecting a partner and managing an alliance takes a lot of time and effort. The first step is to determine precisely what you need to do in order to defend or enhance your competitive position. Focus on what you need rather than what you want. In a word, your firm should carry out a strategic audit.

European tastes, customs, values and ways of doing business are different. You need to consider your business within the European context to consider whether your goals are achievable and to adjust them accordingly if they are not. Make a dispassionate evaluation of the skills and resources that your firm needs to meet its competitive objectives. Which of these skills and resources does your firm already possess? What further ones are needed? The answers to these questions will help you determine whether it is best to go it alone or form an alliance.

Your Analysis Needs to Include:

- ✓ A competitive assessment of business dynamics.
- ✓ A technology review of your company's position in the industry.
- ✓ An evaluation of market segmentation, market size and growth rates.
- ✓ Product life cycles.
- ✓ Opportunities and threats.
- ✓ An audit of company strengths and weaknesses.



Once you have determined your competitive needs, assess the options for filling them. What are the strategic options for moving the company from its current position to a more desirable one? What does each option entail? If the difference can be met through in-house efforts within a reasonable time-frame, then a strategic alliance is unnecessary. If the obstacle is simply financial, then you might consider looking for investors rather than partners. But if there is still something missing, such as special expertise, product development synergy or market presence, then take a closer look at strategic alliances.

One of the benefits of going through this exercise is that it clarifies what you are looking for in a strategic relationship. It helps you to define the resources and the type of company that will be needed in the alliance. It gives you a better picture of the skills and resources that the ideal partner must have to make your venture successful.

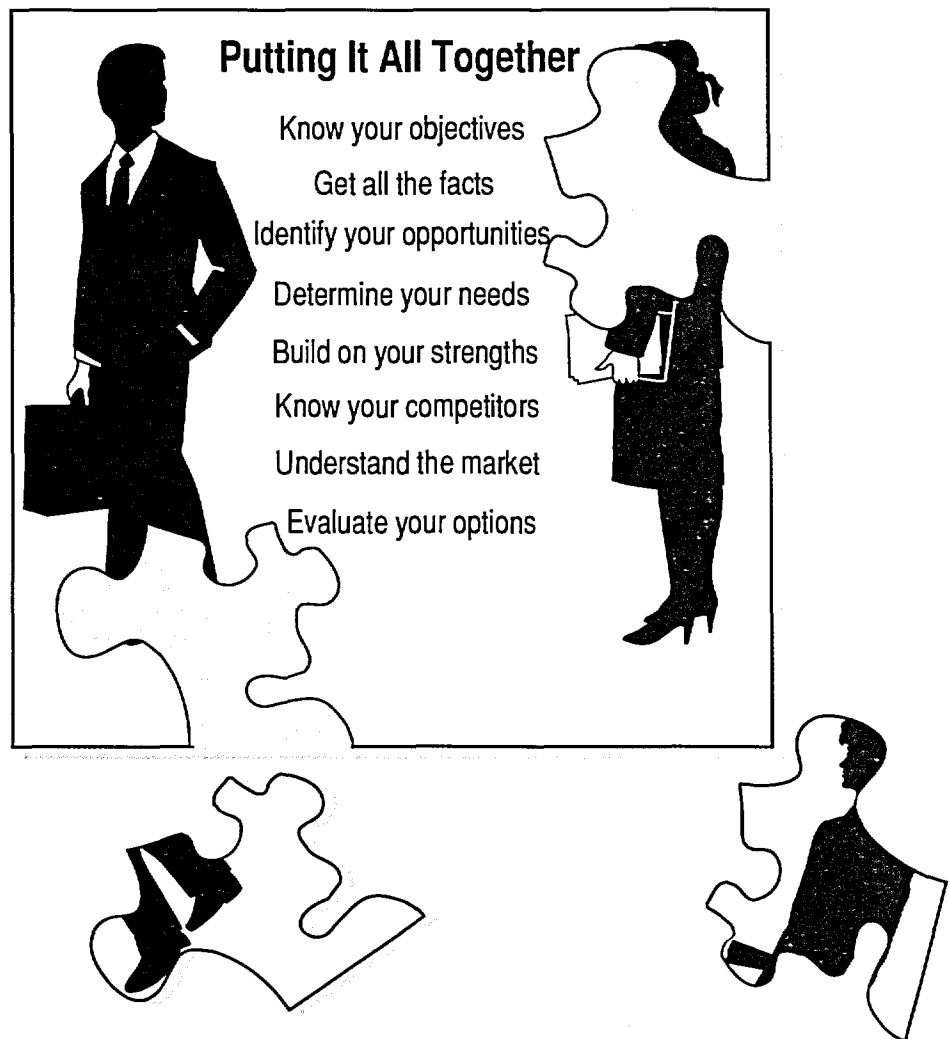
Shaping your strategic alliance

If you decide that the cooperative route is right for you, the next step is to consider the various kinds of strategic alliances.

Analyze the pros and cons of each type of alliance within the context of your needs and objectives. Be sure that your objectives have been defined clearly. If you enter an alliance without a clear set of objectives, you risk losing control over the direction of the alliance. This problem becomes particularly evident later on, when the alliance must choose between opportunities that favour very different strategies. Each partner's set of objectives should complement the other's, and both sets should fit into an overall strategy. Otherwise, the alliance will be unbalanced and may not meet your needs.

Consider how various types of alliances may affect your core business. Many companies maintain close control of their core business and form partnerships solely in non-core areas. Firms deciding to enter partnerships should be aware that alliances can lead to dependence on an outside firm. They can also inadvertently lead to sharing strategic information or expertise with a competitor.

Once you have decided what type of strategic alliance is best for you, the next step involves searching for a suitable partner. Be sure you are ready and willing to take on the large commitment involved in finding the right partner, structuring the deal, and managing the venture. Alliances can only succeed if partners are willing and able to commit enough time, energy, resources, financing, and skilled people to make them work.



Finding a suitable partner

Some attributes of a good partnership

- complementary technical skills and resources
- mutual need
- financial capability
- relative size
- compatible view of strategy and objectives
- complementary operating policies
- compatible management teams
- trust and commitment
- low risk of becoming competitors.

It is vital that you find the right partner. One of the key reasons cited by experienced managers for disappointing performance or unsuccessful partnerships is poor partner selection.

The process is time-consuming and expensive and needs to be approached with considerable patience and with realistic expectations. Developing selection criteria, selecting a partner, and negotiating an alliance can take from 1,000 to 5,000 hours. Remember, the selection process for international alliances is particularly complex. Taking the time to do a thorough search is an investment that will likely prove critical to the long-term success of your venture.

Surprisingly, many managers do not spend enough time exploring the issue of compatibility between their own firms and prospective partner companies. Finding a compatible partner is not simply a matter of finding one with complementary skills. It is also vital that your organizations and your overall business strategies complement each other.

Clearly, the first step in a partner search is to identify firms that possess the resources and capabilities which you lack, but which are necessary for achieving your strategic objectives. Technical complementarity is the minimum criteria for selecting a partner. The next step is to make sure that you can cooperate easily and effectively with the potential partner. Otherwise, you are likely to experience substantial coordination and communications costs as well as a high level of frustration.

The extent and nature of your need to interact with your partner will be based on a number of factors including uncertainty in markets, technology, and resource supply, as well as the complexity of the tasks involved. The more you need to interact with your partner, the more important it is to find a partner whose organization complements your own. You will need to consider questions of size, organizational structure, management style, operating policies, and philosophy. There are many examples of organizational clashes or culture shock that occurred between businesses that had at first glance appeared to be compatible. Take the time to find out if you can really work with a potential partner.

It is also important to understand what a potential partner wants from the relationship. Are the goals of your firms compatible? The more divergence there is between objectives, the greater the risk of dissatisfaction and associated problems.

In the last analysis, the overriding consideration must be the potential partner's commitment and trustworthiness. Trust is crucial, especially where areas of core competence are involved. Today's partner might be tomorrow's competitor. Exposing your strategy or technology to an unreliable partner could seriously erode your competitive advantage.

The effort involved in identifying the right partner will likely repay you many times. It can mean the avoidance of delays, misunderstandings, and the breakup of your alliance due to unsatisfactory performance. In the end, there is no substitute for the intensive screening of partners. If you are unable to find a partner who is compatible and trustworthy, you would probably be better off looking for an alternative way of achieving your objectives.

There are several places to turn for assistance in gathering information and new market ideas. Start with a list of companies with real potential for international partnerships and growth. Make this list available to community developers, business associations and government agencies in target regions. Ask them to suggest the names of companies in their region which complement the capabilities of your company. Then organize meetings at which your company can meet with potential partners.

Effective partnering depends on effective networking. This is especially true for smaller businesses. Formal and informal linkages are important ways of developing contacts, securing business information, initiating cooperative activities, accessing new sources of capital, and obtaining technology.

There are many sources of useful information in the EC. The European Commission has set up a task force to assist SMEs. The task force works through information centres, networks, and publications. The Business Cooperation Centre (BCC) helps foreign firms identify European partner companies. The EUREKA database lists EC companies looking for partners. Some 180 European Business Information Centres (Euro Info Centres) can provide information on local partnership candidates. Many EC regions have databases that can be of help. Search for regions that offer a good fit for your company. There are also numerous databases that are geared to small- and medium-sized enterprises.

In Canada, both the federal and provincial governments provide useful information, resources and networks. External Affairs and International Trade Canada has networks of trade, investment and technology counsellors abroad. Provincial governments also have people working directly with companies.

There are other networks available to you as well. Associations of industrial developers can serve as focal points for the exchange of information. Science parks have formed an international organization designed to compare strategies and devise ways of complementing each other's initiatives.

Explore opportunities for using consultants and specialists to scout potential partnerships and to set up new networks. Keep in mind that some venture companies with investments in a group of local firms may seek partnerships with companies that have invested in a complementary group of firms as a means of helping their clients expand and develop.



Examples of inter-regional organizations that are promoting strategic alliances

The "Four Motors of Europe" is an agreement that was formed to promote cooperation and the formation of alliances between the regions of:

- Baden-Württemberg, Germany
- Catalonia, Spain
- Rhône-Alpes, France
- Lombardy, Italy

Most EC regions have offices that can help you.

Ontario has entered into cooperation agreements with the Four Motors of Europe to promote strategic alliances.

Located throughout Europe, the European Business Information Centres (Euro Info) can provide you with unofficial access to information on possible alliance partners.

Financing your entry into the EC

The following factors are important in determining how the alliance should be financed. These factors should not be considered in isolation, they are interconnected and the decision on the form and amount of financing should be made based on how each factor influences the overall deal.

The structure of the alliance

The type of strategic alliance contemplated will influence the extent and nature of the financial commitment to the alliance. For instance, a joint venture based on equal shares for the partners will have different financing implications than would a licensing arrangement or a marketing agreement. Joint ventures involve more significant legal and financial obligations than do other forms of cooperation. In fact, co-marketing, cross-manufacturing, and cross-licensing alliances may not require much financial commitment at all since they involve the use of existing resources that can be financed out of existing operating budgets.

Roles of parties

The amount that a company may be willing to invest in an alliance will depend on its role. It may assume the role of financier, in which case it takes on the responsibility for providing capital for the whole project. If it wants controlling interest in a project, it will have to make a corresponding financial contribution. Sometimes, an investment is required as evidence of serious interest in and commitment to a project. It may also be limited to an initial exploration of future possibilities for cooperation.

If the role of one of the parties is to contribute know-how to a project, it may offer rights to a patent in exchange for shares in the venture. This kind of a transaction may be especially advantageous when the country in which the transfer is made taxes dividends from shares at lower rates than it does royalties from patents.

Capital Sources Available

Much also depends on the availability of local financing. Canadian companies may discover sources of reasonably priced capital in other countries and regions. Regional governments and their institutions can be particularly helpful in providing access to local sources of financing (see Chapter V).

Private institutions such as banks and suppliers may view the transaction as an attractive business opportunity representing reasonable risk for the returns involved. Guarantees also may be offered by one of the parties which may help the venture obtain financing at more reasonable rates without committing the internal funds of either partner. Given the strength and reputation of either

party, a stock issue may be possible in the country targeted for investment.

International lending institutions, such as the European Investment Bank (EIB), may have an interest in participating financially in the venture because it may complement their mandate or their other interests. For example, through its New Community Instrument IV, the EC works with the EIB to raise capital for small- and medium-sized businesses.

The tax and legal aspect

Canadian corporations are subject to tax on worldwide income, while foreign or foreign controlled corporations are taxed in Canada only on their income from Canadian sources. The tax laws of other countries vary on the issue of residency and control. Thus, who controls a company and where it resides has a bearing on the corporate taxes the alliance would pay and in which country.

The objective of tax treaties is to prevent double taxation, to establish fiscal cooperation between taxing authorities of the signatory countries, to ensure fairness to taxpayers, and provide for adequate enforcement of respective revenue laws. Such treaties tend to reduce the amount of tax that a corporation from one country must pay another country. Thus, in setting up the alliance, it is important to consider how one can best take advantage of the various tax treaties that exist between Canada and the countries of Europe. Proper planning can greatly reduce one's tax burden.

Risks and reward

The financial return available for the risk involved in the investment may represent an opportunity that cannot be matched by other available investment opportunities such as the money markets or other business projects. In such a situation, if funds are available, it may be desirable for the company to assume financial responsibility for the largest part of the investment.

Put together a statement of financial criteria

Your firm should formulate financial criteria that will enable you to define financial performance objectives, policies relating to investments, financing risk, new share issues, retained earnings, and earnings-per-share targets. This statement should also include your intentions in terms of funding requirements, sources of funds, key financial ratios and dividend objectives. Finally, it should describe the organization and structure you will use to manage the financial affairs of the proposed venture.

You need to establish:

- the method you will use to finance new investment;
- the cost and timing of new plant, personnel, and inventory requirements;
- the timing of additional revenues likely to be accrued against new working capital requirement;
- terms to be negotiated with debtors and creditors;
- banking arrangements to be negotiated in new markets;
- requirements to deal with foreign currency and transactions of existing markets;
- new sources of business financing and their costs, including overseas banking.

Checklist for financing an alliance

It would be difficult to provide a list that covers financing aspects relevant to all the possible forms of alliance. The following checklist is a starting point for determining what you will need.

1. Is the return on the investment employed for the alliance commensurate with the risks involved?
2. What is the financial capacity of your potential foreign partners? Consider the extent and nature of their possible financial commitment, as well as other possible forms of participation.
3. What banking facilities are available? What is the nature of the credit facilities offered? This includes short, medium and long-term (conditions, terms, interest rates etc.) from domestic, foreign, government and other lending institutions and facilities.
4. What loans are available from Canadian sources (government as well as private)?
5. What funds or other resources are available from third country operations?
6. What accounting and legal services are available in your potential partner's home jurisdiction?
7. What currencies, exchange rates, and controls on capital flows are involved?
8. What is involved in the repatriation of capital, remittance of profits, licensing, and other payments?
9. Are the tax policies stable and equitable? How will foreign and Canadian taxation affect the formation, operation and disposition or repatriation of funds and remittance of profits?
10. Is insurance available to cover non-business risks, such as expropriation, convertibility and civil strife?
11. What is the value of the know-how, technology or other intellectual property being contributed to the alliance?
12. What level of management control would be commensurate with the investment required?
13. Do you have optimum freedom to re-invest in the jurisdiction of the alliance to expand, develop technology, or improve quality?

Sources: Based on U.S. Department of Commerce, Bureau of International Commerce, Office of International Investment, Washington D.C., and R. Duane Hall, Ph. D., International Joint Venture, (1984).

Negotiating a deal

What are the warning signals?

In negotiation, pay careful attention to the attitudes and behaviour of your potential partners. If you get the sense that something is not quite right, take the feeling seriously. The following are warning signals that you might be entering a venture with a high risk of failure:

- You experience difficulty agreeing on what is proprietary data.
- They are trying to push you into making quick commitments.
- You sense they are not being honest and straightforward with you.
- They are uncomfortable discussing their intentions and plans.
- They are spending a lot of money without serious thought.

Negotiations between prospective partners are the heart of the strategic alliance process. They will set the tone and create the structure of your relationship.

It is important that the communication be honest and frank. Cooperation depends on an atmosphere of mutual respect and trust. But trust does not mean ignoring difficult questions or brushing aside serious reservations. Trust allows partners to meet challenges and solve problems together.

Nor does trust mean ignoring real security issues. Frank and clear definitions of intent, of the scope of cooperation, and of the terms of confidentiality are important. Clarity builds trust, while avoidance of important and legitimate concerns can only lead to confusion, unease, and suspicion.

In many successful strategic alliances, the negotiations never actually come to an end. While it is important to structure your alliance so that it will be able to face every challenge you and your partners can anticipate, it is unlikely you will anticipate every new development that will occur. After all, alliances are designed to succeed in rapidly changing environments. No matter how well you structure your alliance, there will probably be areas that need to be renegotiated. It is not enough to structure an alliance so that it is flexible. The partners themselves need to be flexible and open to renegotiating their agreement as vital circumstances change. In successful alliances, negotiations are often on-going and open-ended.

Your negotiating team should be drawn from a variety of areas and management levels, ensuring that it has a command of all of the issues affecting your strategic alliance from broad strategic concerns to legal and technical details. It is important that your team does its homework, studying your partner's firm, your own firm, as well as material relating specifically to the strategic alliance.

It is vital that team members have the sensitivity and confidence to be able to bridge cultural gaps. Where partners speak different languages, make sure that you have the means to make sophisticated translations. If your communication is inadequate or limited to simple words, subtle misunderstandings can easily become major obstacles.

Some involvement by top management is important. Its presence signals real commitment on the part of the firm, helping to bring both the partner and your own employees on side. Senior executives have the broad strategic understanding and the clout that can help to keep talks on track and that can break deadlocks in negotiation.

But it is usually a good idea to limit their involvement. At a certain point, personnel with a better grasp of technical, operational, and legal details should be used. Senior executives have been known to avoid raising thorny questions in order to maintain a pleasant, collegial atmosphere. They may also lack detailed familiarity with issues that are the province of lower levels of management and assume difficult details will be ironed out later.

Every alliance needs a champion. You should appoint at least one person with enough clout to make things happen. The champion becomes the key catalyst for the alliance within your firm. He or she is the driving force, taking responsibility for its creation and often serving as the chief negotiator.

The on-going commitment of a champion by each partner firm is essential to the establishment of a successful alliance. For this reason, it is a very good idea to have as many as three champions. Then, if one champion leaves the firm, the formation of the alliance is only slowed, rather than derailed.

It is also a good idea to include people who will actually be involved in the managing of the alliance. It is an opportunity for them to get to know their future colleagues and to help shape and fully understand the structure of the alliance. Some firms have found that such staff are better introduced later in the negotiating process, after the controversial issues have been hammered out, saving them from a conflict between the interests of the parent firm and their own desire to nurture a harmonious working relationship with their future partners.

The members of the negotiating team should meet at least once before entering negotiations. It gives them a chance to get to know each other, to assign roles, and to set goals, strategies, and tactics. Not only will this increase their effectiveness as a team, it also makes sure that the team does not send confused signals to the partner.

Give Yourself a Way Out

It is wise to build exit clauses into the agreement. Clearly defined responsibilities, rights, and procedures reduce tensions. The partners know what is expected of them and know the consequences of breaking up the alliance without careful consideration. Escape clauses become especially important if a conflict arises that cannot be resolved. Unfortunately, too many managers do not familiarize themselves with the terms of the legal agreement until they are in dire need of a way out. At that point, they can only hope then that their lawyers served them well when they drafted the terms of the exit clause. Clearly, management should be aware of the various options and their ramifications under each part of the legal agreement while it is being negotiated. When the alliance has ended, it may well be the exit clause that determines your strategic position.

Most of the legal detail in an exit clause is concerned with the disposition of assets, staff, technology, and patents when an alliance breaks up. In the case of a joint venture, termination clauses either give the right of first refusal to the other partner or they dictate the terms of some kind of shotgun sale. A share price is usually specified in the exit clause since it is easier to be objective and arrive at a fair price when you do not know whether you will be the buyer or seller. It is also possible to leave this sort of arbitration to a third party.

Exit clauses can be formulated implicitly if it is not possible to settle on an explicit one. This means that instead of explicitly defining when an alliance might come to an end, the agreement includes provisions for renegotiation of the agreement if specific sales or profit targets have not been met within a certain period of time.

It is also possible to stipulate the fines a partner must pay to break an alliance unilaterally. But keep in mind, overzealous attention to minute detail can kill an alliance before it gets off the ground, even if complex legal detail is often needed by creditors. Another effective way of protecting financial partners is to establish benchmarks for the alliance. The risks to investors can be minimized by dispensing capital in increments, each of which is contingent on the achievement of technological or other milestones by specified dates.

Working within a different culture

Business styles vary from culture to culture

A study by an INSEAD professor, Andre Laurent, provides interesting examples of how management styles and expectations can vary from culture to culture. The issue was whether a manager is expected to possess precise answers to questions posed by employees:

- the American manager is not expected to be an expert in all areas;
- the British manager is a proverbial generalist;
- the West German is expected to be an expert;
- the Latin manager is expected to answer because he is in charge; and
- the Japanese executive will know that his subordinates will not ask him a question unless they know he can answer it.

In his book on strategic alliances, Jordan D. Lewis describes some of the distinctive characteristics of the different national business styles. Familiarity with such differences can make the difference between free and open discussions and puzzling incomprehension. Lewis notes:

"Northern Americans and people from northern Europe tend to discuss the specifics of a deal in "frank, emotion-free communications," whereas Latin cultures "prefer wider-ranging discussions that include ideology, accept emotional expression, and evolve through subtle changes in positions. In these, meaning is conveyed both in words and between the lines."

"In France, meetings will not start on time if the most senior person is late. No time is allotted to the various topics, with all matters being discussed at once. In Germany, everyone is on time, and there is a schedule for each subject.

"Among the Europeans, the French prefer more rules and more structure and give more respect to hierarchy in their organizations than do people in Germany and the British place less emphasis on structure than do German companies."

It is not a question of which is the superior method. What is vital is that the international manager learn to recognize and work with the differences. For instance, instead of feeling constrained by the technical and functional orientation of Germans, an international manager from Britain could learn to appreciate and fully-utilize the depth of competence of his German subordinates.

Successful management of a strategic alliance goes beyond overcoming organizational challenges. It also involves dealing with the peculiarities of European social and corporate practices that can pose major stumbling blocks for Canadian firms seeking to build alliances with EC firms. A lot depends on the quality and the skills of the people involved, especially the general manager.

Finding the right person to run the strategic alliance - or to look after the liaison points between the partners - is of vital importance. Such people must have enough power to make things happen, and they must have a good understanding of the respective cultures and practices of the parent companies. They should be thoroughly competent in their normal managerial or technical roles and they will need strong interpersonal skills. They must be active listeners, able to sense the unspoken and hidden dynamics of the other side and find reasonable compromises.

The Good International Manager

Phillippe Gras, CEO of Renault Vehicules Industriels Group in Boulogne, lists several characteristics that Renault considers especially important in a European manager:

"The first: the knowledge of several foreign languages, spoken fluently, enabling cultures, mentalities, and the history of several countries to be integrated.

"The second: a capacity to feel at ease in Barcelona or Frankfurt — to assure identical efficiency in several European countries. That inevitably implies experience abroad.

"The third: high ideals — necessary for making comparative judgment so as not to reproduce identical models in countries where cultures are different."

Effective international managers may be a rare breed, but they do exist. According to Paul Evans, a professor at INSEAD, good international managers are comfortable with managing and channeling diversity.

"Good international managers are created by diversified experience," Evans says. "When people work across frontiers they begin to recognise that certain things are no longer accepted wisdom." Differences exist not only in terms of markets and areas of particular strength and weakness, but also in basic concepts concerning management and organization.

The good international manager is one who can reach beyond his or her own conditioning to share in a different way of seeing. That requires more than a practised ability to generalize acquired by jumping from one multinational operation to another. "All that type of experience does is reinforce the individual manager's stereotypes of the people he or she is meeting, or meant to be managing."

While diverse experience is important, so is taking the time to build relationships and coming to understand the particular culture.

You will also want to share your company's business objectives in the EC with your Canadian employees at all levels. Their cooperation with EC counterparts will be vital. And your European personnel may need guidance on how to obtain information and help from their Canadian counterparts. Prepare written guidelines for both operations, and include clear directions, names, job functions and phone numbers. Otherwise, simple details such as time zone differences can become major problems. Remember to take the time to keep the lines of communication open.

Careful attention should be paid to fostering mutual trust and joint commitment. Exchange programs have proven a useful tool for short-term efforts involving both companies or for longer-term, cross-cultural training programs. In a joint venture, it is often an excellent idea if the gener-

al manager consults with senior management in both parent companies on major decisions regardless of their expertise in the particular issue at hand. Those consulted are reassured by their on-going involvement and are far more likely to be on side when the actual decision is made. The inclusion of key phrases or special concerns voiced by them can sometimes make all the difference.

Many experienced executives have stressed that there can never be too much communication. Otherwise, a good deal of time and money is wasted as managers go back to the moment when a first misunderstanding arose and try to establish a workable solution. In the meantime, employees sit idle and lose their enthusiasm for the project. Lack of communication also obstructs the interaction from which alliance synergies emerge.

Training for Europe

Entering European markets involves learning a whole new set of skills. Carefully assess the linguistic skills of your employees, their familiarity and openness towards other cultures and their attitudes towards the new business challenge. Your people may also need to develop new skills in marketing, distribution, export and import procedures, and quality and stock control.

Once you have identified what new skills your managers and workers need, you will want to consider how they can be provided:

- in-house training
- new recruitment
- educational institutions
- external training
- staff incentives
- correspondence courses

Some companies have launched efforts to prepare their managers. Honeywell Europe, for example, has an intensive program to teach several hundred managers about European culture, values and ethics. There are many consultants who can help firms customize training programs. Smaller firms that may not be able to afford such services could consider pooling their resources to organize the training they need.

Educational institutions have also developed training programs. The Ontario Centre of International Business at York University offers an enhanced MBA program, the first of its kind in Canada. It requires students to learn one foreign language, study other cultures and spend one work term in another country.

A number of schools across Europe are forming joint programs in order to train future and present business leaders for the new European environment. Two recent examples of such cooperative initiatives at the graduate level are the European Business School (EAP) which has branches in France, Germany and the joint venture between Ashridge Management College (U.K.), CPA (France) and USW (Germany).

In France, the European Business School Program, located at the Ecole des Hautes Etudes Commerciales, offers places to Canadians. Another French institution, CEDEP, is a continuing management education centre linked to INSEAD.

INSEAD: preparing a new generation of Euro-managers

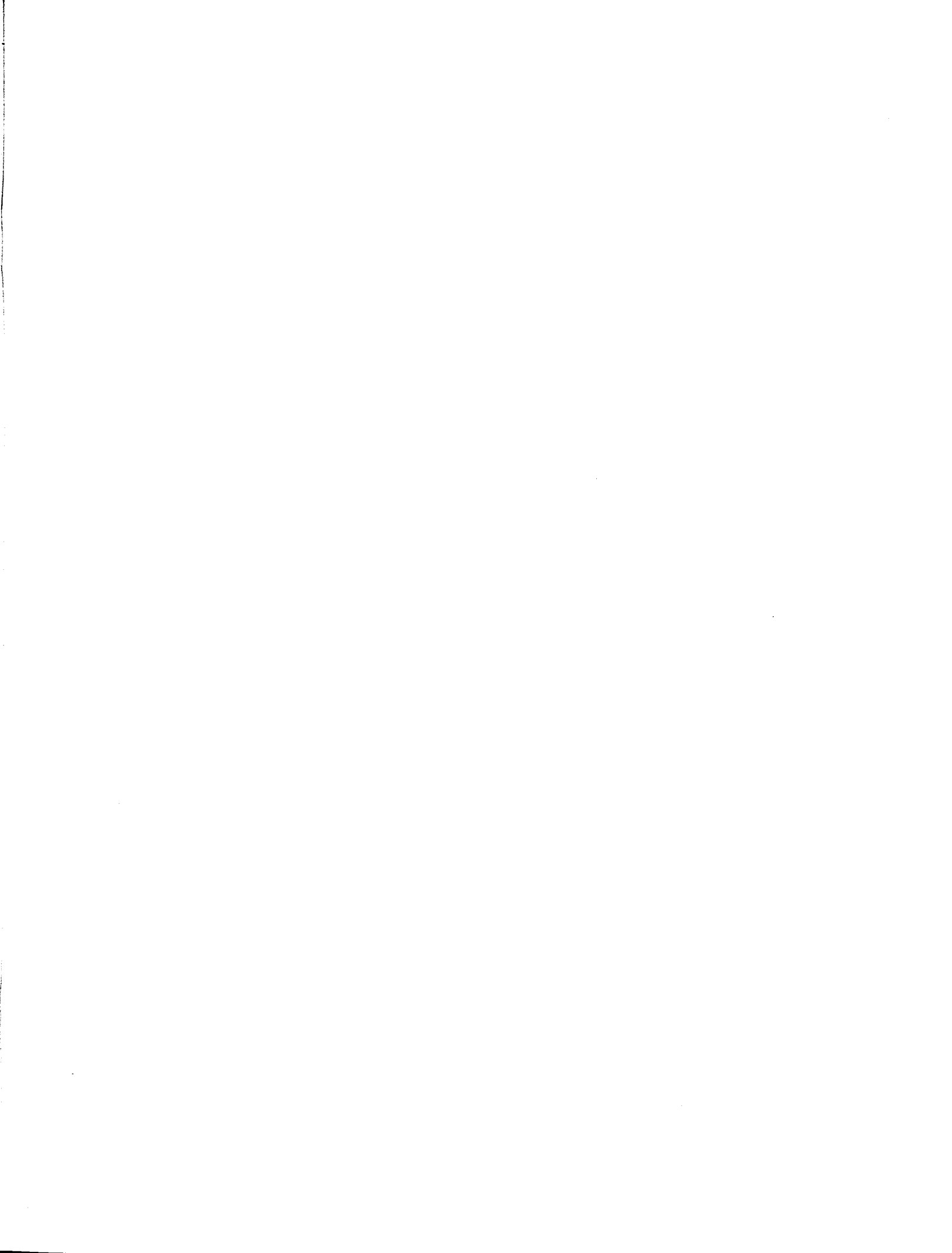
INSEAD, a European business school modeled after the Harvard Business School, has developed a variety of courses for the new generation of Euro-managers. In addition to a normal MBA program, the continuing management education program draws more than 2500 business executives to Fontainebleau each year. Courses there use the case method and are taught by an international faculty in English.

Courses normally run from two to six weeks. They include:

- "Managing Partnerships and Strategic Alliances" (one week),
- "European Marketing Program" (three weeks), and
- "Managerial Skills for International Business" (two weeks).

INSEAD also offers a two week course in "Managing Multinational Enterprise". Topics covered include: the evolution of international competition, strategic options for multinationals, alternative strategies for penetration and disengagement, how to analyze political risks, and the influence of the social context. Cases studied include Michelin, Caterpillar, Komatsu, Heineken, Bok Paints, Triton Chemicals, Procter & Gamble as well as international M&As (Electrolux-Zanussi), partnerships, and alliances.

INSEAD is very much a European school with an international "student" body. In 1990, 17% of the participants in their programs were from the U.K., 14% from France, 11% from Germany, 11% from Scandinavia, 31% from other European countries, 8% from the Americas, 5% from the Pacific Rim and 3% from the rest of the world.



V. The EC is Driven by Regional Motors

Key markets and strategic alliances

Baden-Württemberg

Catalonia

Lombardy

Rhône-Alpes

Key markets and strategic alliances

Ontario and the Four Motors are promoting alliances

The Government of Ontario has played an active role in encouraging joint research and marketing ventures between Ontario firms and potential partners in other areas of the world. Among these efforts, the establishment of bilateral agreements with the Four Motors has been of paramount importance. The Ontario Technology Fund is contributing to the agreements by providing matching funding on research projects between firms from Ontario and the Four Motors.

Three such projects were initiated with partners from Baden-Württemberg in 1990. These projects include the development of new lasers, the improvement of manufacturing planning and control systems, and the development of high-speed local area networks based on optical fibres. The agreements call for \$2 million to be contributed over four years to alliances involving partners from Germany's "High Tech State."

The Technology Fund is supporting similar arrangements with the Rhône-Alpes. Projects include the development of new materials for bone implants, new ceramic composites, personal view stations for radiologists and new technology to combat the hazards of flue dust disposal.

Companies choose a country, but they settle into a region or community. Today, firms know that their competitiveness is largely determined by the capabilities, infrastructure and partnering opportunities of the regions in which they locate. The integration of European markets has led to the emergence of a number of European regional powerhouses. Some of these regions not only provide competitive infrastructure, but actively promote strategic alliances between local and foreign firms.

This chapter features four particularly powerful EC regions: Baden-Württemberg in Germany, Catalonia in Spain, Lombardy in Italy, and the Rhône-Alpes in France. All of these regions have been financial, industrial, trade and cultural centres for centuries, and today, they are all playing a vital role in securing the international competitiveness of the EC. Together, they are known as the Four Motors of Europe.

In June 1990, Toronto played host to business leaders from the Four Motors at a conference called "Interregion 90." It was decided to open representative offices in each of the four regions and in Ontario to promote joint business ventures and cooperative efforts in new overseas markets between Ontario and the regions. These will include:

- the establishment of an interregional business center in Toronto to develop business among the five regions;
- the coordination of efforts among the five in assessing economic opportunities in Eastern Europe;
- joint efforts to enter markets and build business alliances in North America;
- cooperation on environmental issues; and
- a joint economic exhibition to be presented at industrial fairs around the world.

As important as the Four Motors are, other EC regions are also worthy of consideration but have not been included because of the constraints of space. In the preamble to the EC treaty, the Member States declared their aim of "reducing the differences existing between the various regions and the backwardness of the less favoured regions." The centrepiece for this action is the European Regional Development Fund, known as the Regional Fund. Access to the fund can be gained by participating in the national or regional programs within the EC Member States. For example, through agencies such as France's DATAR, European governments offer attractive incentives (cash and tax relief) to businesses willing to invest in underdeveloped areas. By participating in national or regional programs in the EC, Canadian firms can also take advantage of EC regional policy.

Using regions for competitive positioning

With increasing international competitiveness and technological innovation, regional characteristics such as market proximity, the availability of a quality workforce, technological excellence, stable operating costs, and an attractive quality of life have become vitally important.

As firms implement computer-integrated manufacturing (CIM) to cut costs and improve product quality, they are increasing their reliance on skilled engineers and technicians. For many firms, the quality of the workforce can be more important than its cost. As a result, an important determinant of site location is proximity to educational institutions that can offer a steady

supply of quality CIM engineers, technicians and operators. Moreover, whether a firm is active in advanced technology or in more traditional sectors, all enterprises are increasingly relying on processes that use advanced production technology. For that reason, the same locational factors can be critical to both companies active in advanced technology areas and to the producers of low technology goods.

High technology and value-added manufacturing industries in particular tend to locate in regions where networking to subcontractors is possible. For example, the German company, Mannesmann, one of the largest firms in the world in the mechanical (machine tool, hydraulic) industry, located its French subsidiary near Grenoble, in the Rhône-Alpes region. Because of the nature of its products, it has developed supplier relationships with nearly 500 local firms. Hewlett-Packard has also located a manufacturing plant there, developing ties to over 250 local subcontractors.

Firms interested in establishing production capabilities based on low cost labour are still going to Spain and Portugal, with Catalonia especially popular. Service sector firms, including the headquarters of major multinationals, have been flocking to major cities such as Milan, Paris, Brussels, London, Munich, and Paris. Financial capital is largely oriented toward Switzerland, Luxembourg, and the U.K. because of their highly developed financial industries.

Some key factors corporations use to assess a region:

- communications infrastructure
- technology supply
- efficient and highly skilled suppliers
- reliable energy supplies
- higher education, technical training facilities and quality workforce
- an attractive quality of life (fresh air and access to nature) to keep skilled workers satisfied

The top 24 (out of 160) most competitive regions of the EC

Rank* Subregion (Region), Country

1	Darmstadt (Hesse), Germany
2	Oberavon (Hesse), Germany
3	Stuttgart (Baden-Württemberg), Germany
4	Hamburg, Germany
5	Ile de France, France
6	Karlsruhe (Baden-Württemberg), Germany
7	Luxembourg
8	Rheinland-Pfalz (Rhineland), Germany
9	Valle d'Aosta (North West), Italy
10	Berlin (West), Germany
11	Hovedstadsregionen, Denmark
12	Mittelfranken (Bavaria), Germany
13	Alsace, France
14	Düsseldorf (Westphalia), Germany
15	Greater London (South East), U.K.
16	Freiburg (Baden-Württemberg), Germany
17	Tübingen (Baden-Württemberg), Germany
18	Lombardy, Italy
19	Grampian (near Aberdeen, Scotland), U.K.
20	Liguria (North West), Italy
21	Schwaben (Bavaria), Germany
22	Rhône-Alpes, France
23	Köln (Westphalia), Germany
24	Emilia-Romagna, Italy

* The ranking was determined using four weighted variables: GNP/persons employed (25%), GNP/population (25%), unemployment (40%) and employment potential (10%).

Source: EC 1987.

Baden-Württemberg

Patent applications, 1988

(per 100,000 inhabitants)

Baden-Württemberg	76
Hesse	69
Bavaria	58
Hamburg	55
Nordrhein-Westfalen	50
Schleswig-Holstein	31
West Berlin	30
Niedersachsen	29
Bremen	21
Saarland	17
Rheinland-Pfalz	12

Source: Ministry of Economic Affairs and Technology (State of Baden-Württemberg).

Located in south western Germany, Baden-Württemberg is known as the High Tech State. For Canadian firms hoping to partner in machine technologies and other advanced technology sectors, this region is rich in opportunity. Baden-Württemberg has 9.4 million inhabitants and an area of 36,000 km². Situated in the centre of Europe, it is within easy reach of a potential market of 200 million people. The State also offers an outstanding quality of life. Its attractions include the Black Forest and Lake Constance, and it is close to Switzerland and the Alps. The State's major centres include Stuttgart, Heidelberg, Karlsruhe, Mannheim, Freiberg and Tübingen.

Structure

Large corporations such as Mercedes-Benz, Porsche, Bosch, Zeiss, Sony, IBM and Hewlett-Packard have their headquarters or German operating centres there. Still, the State's industrial structure is characterized by a wide range of innovative and diversified small- and medium-sized enterprises, many of which have been owned and managed by the same families for generations. Its many flexible medium-sized companies offer first class products at all technological levels. These companies are often suppliers to large, and in some cases, internationally known companies.

Infrastructure and capabilities

Baden-Württemberg has an excellent technological infrastructure, including the highest concentration of research institutes in Europe. There are also a large number of well supported industrial parks in the region. Almost 25% of Germany's applied R&D facilities are located here. Areas covered include:

- microelectronics
- biotechnology
- measuring and control engineering
- medical technology
- sensor technology
- environmental technology
- material technology

Industrial Sectors in Baden-Württemberg, 1988

(percentage of employees)

Mechanical engineering	18.2
Electrical engineering	17.5
Automobile manufacturing	15.9
Textile industry	4.8
Chemical industry	4.8
Production of iron, sheet and metallic goods	4.7
Food industry	3.8
Precision engineering, optics, and watch making	3.4
Production of plastic goods	3.4
Wood working	2.7

Source: Ministry of Economic Affairs and Technology (State of Baden-Württemberg).

There are 9 universities (2 technical universities), 23 polytechnics, 3 large scale research institutes, 11 Max Planck Institutes, 14 institutes and research centres run by the Fraunhofer Society, 9 institutes for joint industrial research and 100 Steinbeis Foundation transfer centres. In total there are more than 150 scientific institutes engaged in active research. There are also vocational academies, the students of which are also company employees, allowing them to combine theory with practice. Every year 90,000 graduates begin training for a specific profession in these academies.

Because of its central location, the State enjoys preferential treatment within the European transportation network, with excellent road, rail, air and water links.

Investors

Baden-Württemberg is actively seeking investors and firms interested in partnering in the State. Major investors from around the world have chosen to locate there or develop partnerships in the area. Foreign investment in Baden-Württemberg already amounts to \$14 billion with the largest share of the investment coming from the U.S., Switzerland and Great Britain. The following companies have located branches there:

- IBM
- John Deere
- Sony
- Minolta
- Asea Brown Boveri
- Hewlett Packard
- Proctor & Gamble
- Citizen
- Michelin
- Nokia

Performance

Baden-Württemberg had a very healthy growth rate in the 1980s. In 1988, the State exported goods to the value of \$70.4 billion which constituted 17.7% of all German exports, the largest share of any state in Germany. Most companies traditionally maintain excellent international trading relations. The main customers are located in the U.S., France, Italy, Switzerland, and Great Britain.

In 1988, the domestic product of the State was \$25,293 per inhabitant as compared to the West German average of \$24,058. The State's gross domestic product in 1988 grew by 3.6%.

Programs

Baden-Württemberg has a very proactive approach to finding and helping foreign firms to partner in the area. Interested Canadian firms will find the following programs useful.

Ministry of Economic Affairs and Technology (Baden-Württemberg)

This Ministry serves as the first contact for foreign companies interested in Baden-Württemberg. Canadian companies will find that it can answer questions regarding the setting up of industrial premises or cooperative agreements with other companies. It can put them in touch with potential partners and it provides advice on financial support. There is also assistance available for new companies and projects, especially technologically-oriented enterprises, ventures developed by small- and medium-sized companies, and proposals in the environmental area.

Address: Ministerium für Wirtschaft
Mittelstand und Technologie
Baden-Württemberg
Theodor-Heuss-Strasse 4
Postfach 10 34 51
7000 Stuttgart 10
Germany
Tel. (0711) 1 23 23 82 or 1 23 23 66
Fax: (0711) 1 23 21 26

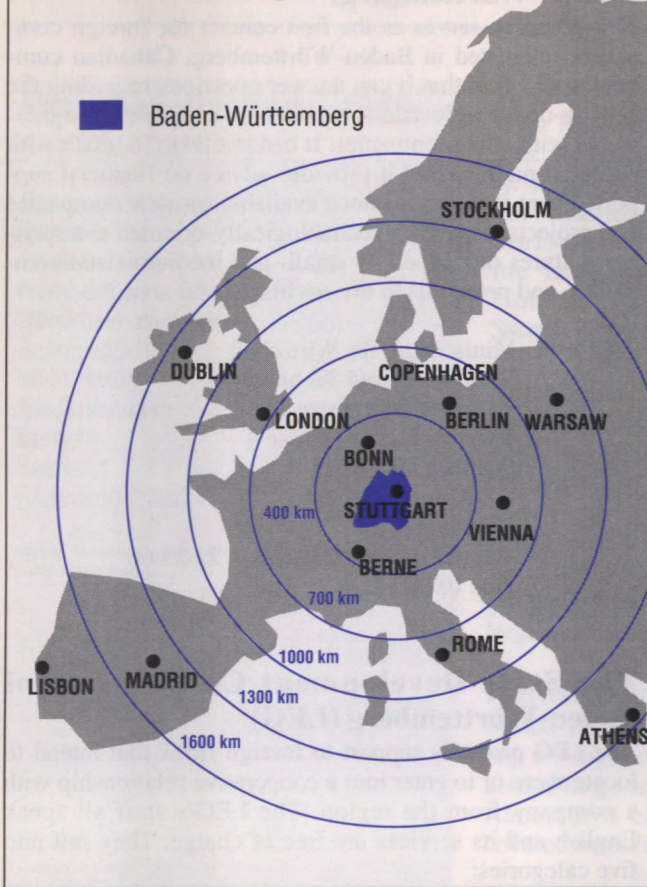
The State Development Corporation of Baden-Württemberg (LEG)

The LEG provides support to foreign firms that intend to locate there or to enter into a cooperative relationship with a company from the region. The LEG's staff all speak English and its services are free of charge. They fall into five categories:

- locating appropriate local alliance partners
- site selection
- R&D partner location and support
- supplier search
- general product support

Address: LEG
State Development Corporation of Baden-
Württemberg Ltd.
Federal Republic of Germany
Department for Industrial Cooperation and
Development
P.O. Box 718
D-7000 Stuttgart 1
Germany
Tel. (0711) 2 17 73 30

Baden-Württemberg: At the centre of Europe



Agency for International Economic Cooperation Baden-Württemberg

This agency is a joint body of Baden-Württemberg's industrial associations and the State Government. It provides advice to foreign companies wishing to locate in the State as well as information on possible partner companies. It has a detailed database on the infrastructure of the region; it provides an industrial real estate service; and it also advises on applications for financial subsidies or the drawing up of contracts between local SMEs and their foreign partners.

Address: Gesellschaft für internationale wirtschaftliche Zusammenarbeit mbH
Schlossstrasse 25
7000 Stuttgart 1
Germany
Tel. (0711) 22 78 70
Fax. (0711) 2 27 87 22

Steinbeis Foundation for Economic Promotion

The purpose of the Steinbeis Foundation is to help companies solve their R&D problems. It can also put clients in touch with research institutions in the region.

The Foundation provides information on general R&D issues, technological advances, as well as technology and market reviews. It will also execute specific R&D contracts on behalf of clients. It provides assistance with product location and exploitation and with the setting up of contacts with business partners to exploit ideas to the full. It can also act in an advisory capacity when setting up new, technologically-oriented companies.

Address: Steinbeis-Stiftung für Wirtschaftsförderung
Schlossstrasse 25
7000 Stuttgart 1
Germany
Tel. (0711) 22 90 90
Fax. (0711) 2 26 10 76

Many international players have sought out Catalan partners because of low labour costs in the region. Catalonia is the production centre of Spain. Its 6 million inhabitants contribute proportionately more to Spanish output than any other region of Spain except Madrid, which is the focus of the country's capital markets, and the Balearic Islands which are a major tourist destination. The borders of Catalonia are defined by the Mediterranean and by the Pyrenees. Barcelona, the capital of Catalonia, contains many architectural masterpieces and is presently undergoing extensive renovations in preparation for the 1992 Summer Olympics.

Structure

Most of Catalonia's companies are small, family-owned enterprises that lack the capital resources to expand. Catalonia's overall economy is heavily industrialized, although the service sector is now dominant: manufacturing accounts for 40.6% of GDP, services 56.8%, and agriculture 2.6%.

Infrastructure and capabilities

Catalonia has a large number of diversified suppliers, a highly skilled labour force with low wage rates relative to the rest of industrialized Europe, a rapidly growing domestic market, and a well developed infrastructure that includes industrial parks, transportation, and advanced communications. In preparation for the Olympics, Barcelona has built a new airport, subways, ring roads, new sewers, hotels, and apartments. The City is also spending \$590 million in renewing its telecommunica-

Representative Salaries in Barcelona, 1989

(\$)

Sector: professional electronic equipment	Annual salary	Total cost to company*
Supervisor, grade 1	17,657.5	23,838.4
Qualified worker (grade 1)	15,872.2	21,427.6
Qualified worker (grade 2)	14,333.5	19,349.6
Qualified worker (grade 3)	13,486.2	18,206.2
Warehouseman	13,769.4	18,589.7
Truck driver	12,781.8	18,031.6
Labourer	11,684.4	15,773.1
Head, accounting department	47,970.5	64,759.6
Engineer (some experience)	32,709.6	44,158.0
Executive secretary (with English)	19,067.6	25,741.7

*Approximate total wages are obtained by adding an average of 35% for social security costs.

Source: Center for Information and Business Development (CIDEM), Ministry of Industry and Energy, Generalitat of Catalonia.

Sector Distribution of the Catalan GDP

(in percentage)

Metal products & Machinery	19.1
Textiles, leather goods & footwear	18.1
Food, beverages, & tobacco	12.3
Chemical products	10.9
Energy products & electricity	10.6
Rubber & plastic	7.5
Paper products & printing	7.0
Transport material	5.4
Construction materials	5.2
Wood, cork & furniture	2.9
Minerals & metals	0.9

Source: Center for Information and Business Development (CIDEM), Ministry of Industry and Energy, Generalitat of Catalonia.

tions. In the past it had been difficult to obtain an international telephone line out of the region during peak morning hours. In total, the City is investing \$4.7 billion on new infrastructure.

In July 1987, the Catalan and Barcelona governments created the Valles Technological Park (PTV) as an industrial and research zone devoted to high technology. Co-located with the National Microelectronics Centre and the Autonomous University of Barcelona, it is 15 km from Barcelona. Approximately 20 multinational technology-based firms and five research centres have also located nearby. The PTV has five priority areas: microelectronics, telecommunications, advanced automation, lasers and new materials, and biotechnology. The following businesses are already present or committed to locating in the PTV:

- Olivetti
- T&G International
- Lana Sarrate
- Ready Systems (65% Geveke)
- Grupo Comelta
- Telesincro (40% Honeywell Bull)
- Takio
- Centro Tecnologico ASCAAM
- Telefonica D Espana
- McDonnell Douglas
- Semiconductors
- Balzers-Elay (20% Balzers AG)
- Craftsman
- Protoc Robotica
- Tedel (50% Tonna Electronique)

Foreign Investment in Catalonia by Sector, 1989

(\$ millions)

Mineral extraction & transformation & chemicals	741.31
Other manufacturing	637.07
Metalworking	466.24
Agriculture & food processing	437.30
Trade & tourism	349.59
Transport & communications	56.30
Construction	22.83
Energy	0.51

Source: Center for Information and Business Development (CIDEM), Ministry of Industry and Energy, Generalitat of Catalonia.

Investors

Catalonia has attracted considerable foreign investment over the past few years. Between 1988 and 1989, foreign investment in the region increased by 55%, from \$2.5 billion to \$3.7 billion. To take one example, Catalonia is currently the recipient of 70% of all Japanese investment in Spain. Among the Japanese companies that have chosen Catalonia are the following:

- Nissan plans to expand its Spanish subsidiary, Nissan Motor Iberica, of which it owns 65%. It will diversify production which is currently focused on vans and four-wheel drive vehicles to include small cars by 1993. Nissan is to invest \$1.2 billion over five-years in the construction of a new car design centre, a test track together with VW-SEAT, and the extension of its Barcelona plant.
- Sony will invest \$82 million to build a new color TV manufacturing plant in Barcelona, half of which will be exported. Sony will also invest more than \$11 million to upgrade its video production facilities.
- Toshiba inaugurated the firm's Spanish headquarters in Barcelona and announced plans to establish a plant to produce portable computers.
- Sanyo will invest \$15 million in the construction of its European research and development facility in Barcelona. It will undertake research on High Definition Television.
- Shikibo, a Japanese textile firm, is investing about \$26 million in a textile facility.
- Kao, a Japanese chemical firm, will invest \$82 million in a new, highly automated, plant to produce diskettes for the European market.

Performance

Catalonia is Spain's most dynamic region. With slightly less than 16% of the population, it generates nearly 20% of the GDP, more than any other Spanish region. It accounts for 27% of Spain's industrial output.

The current recession has been particularly severe for tourism and the large industrial employers, especially textiles and construction, each of which have about 18% of the workforce. Still, at 14.3%, the rate of unemployment in the region is a good deal below the national average.

Programs

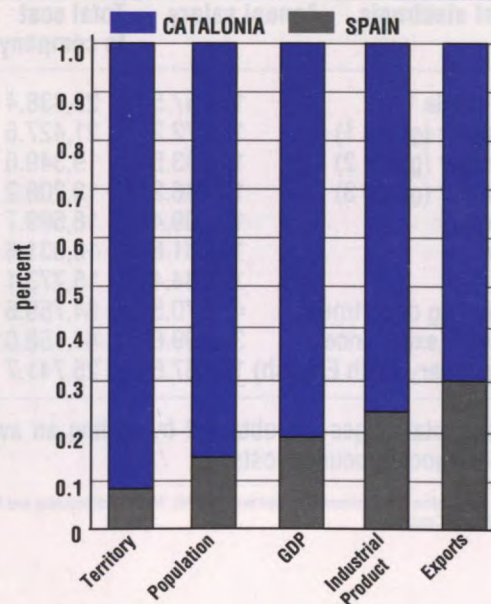
The following contact points are useful in identifying Catalan institutions that promote partnering:

CIDEM, the Center for Information and Business Development, is a government agency that attracts foreign investment and promotes industrial zones in the region. Its newsletter, Catalonia Business, is available from the office in New York. Centre for Information and Business Development, Department of Industry and Energy, Generalitat of Catalonia, Spain, 747 Third Avenue, 20th Floor, New York, N.Y. 10021, Tel. (212) 755-8830 and Fax (212) 755-8837.

FEDER provides subsidies for industries, services and workshops to create new jobs, to develop the industrial infrastructure of developing zones, to aid SMEs, and to assist with marketing studies and promotional activities. It can provide SMEs with preferential interest rates of up to 3% on loans.

Although Catalonia has not been designated a "developing zone," the Spanish government will nevertheless provide subsidies to companies that create, modernize or expand facilities there. Subsidies extend to 20% of the investment of new fixed assets. Interest rates may also be reduced to 6%.

Foreign Investment in Catalonia by Sector, 1989



The Centre for Technological and Industrial Innovation (CDTI) aids in financing technology and product development projects. For example, it can provide risk financing, special loans, or prefinanced loans.

The Industrial Credit Bank (BCI) guarantees credit for the financing of industrial activities.

Catalan Reindustrialization (COPREC) works with Catalan financial institutions to grant industrial credits.

Department of Industry and Energy of Catalonia offers preferential interest rates and provides a variety of subsidies for technological innovation and industrial development.

The Institute for Small- and Medium-Sized Industries (IMPI) helps SMEs by providing financial support for guarantees.

The Spanish Foreign Trade Institute (ICEX) promotes exports by providing financing, export credit and insurance.

The Interdepartmental Commission for Research and Technical Innovation (CIRIT) provides grants for technical and industrial specialists. It also provides subsidies and can participate in projects.

Societat Catalana de Capital a Risc, the Catalan Venture Capital Corp., promotes and participates in new industries.

The National Electronic and Computer Plan II (PEIN II) offers subsidies to businesses and institutions conducting studies and projects related to technological development in the electronic and computer industries.



American, European and Japanese investors are helping each other enter Spain

The leading manufacturer of automobile components in Japan, Nippondenso, and the number two manufacturer in Europe, France's Valeo, are forming a joint venture in the Catalan town of Manresa to manufacture electronic ignition devices.

Nissan Motor Iberica and Ford have signed an agreement to manufacture and sell a new off-road vehicle which will be developed in Nissan's European Technology Centre in Spain and produced in Nissan's facilities in Barcelona. Nissan Motor Iberica — 65% of which is owned by Nissan — will expand production from primarily vans and four-wheel drive vehicles to include small cars by 1993. Nissan is planning to invest \$1.17 billion over five-years. It will extend its Barcelona plant and build a new car design center and a test track (together with VW-SEAT).

An American-Spanish biotechnology alliance

Laboratorios Knickerbocker, Spain's leading manufacturer of medical diagnostic tests and Biotrax Inc., a newly established biotechnology company founded by researchers from Johns Hopkins University Medical School in Baltimore, signed an agreement in November 1989 to coordinate the development, manufacture and marketing of diagnostic products for both the EC and U.S. markets. The two firms have complementary research efforts in recombinant DNA technology as applied to diagnostic and biological products.

Under the terms of this agreement, Knickerbocker will acquire stock in Biotrax and representation on Biotrax's Board of Directors. Biotrax will help Knickerbocker launch recombinant DNA diagnostic products in the EC, while Knickerbocker will assist Biotrax in developing novel immunodiagnostic products for entry into the U.S. market. The partners have established reciprocal licensing and distribution agreements for importing and marketing each firm's products in the other's market. They are also discussing the possible joint development and marketing of future generations of diagnostic and biological products.

Source: Catalonia Business.

Lombardy

Lombardy is an emerging centre for services and technology in Italy. As the country's top exporter, its industries used to be focused on heavy industry. Now, however, Lombardy is developing new strengths in the design, engineering consultancy and financial services sectors and in certain high technology areas such as telecommunications. The area has become an important centre for R&D.

Lombardy was designated as a distinct region on June 7, 1970. It has an area of 23,834 km². The last census, in 1986, recorded a population of 8,874,635, or more than 15% of Italy's total. Lombardy has the largest population of any region in Italy and the third largest in Europe after London and Paris. Its total population is comparable to that of Belgium, Greece, Sweden, Austria, or Portugal.

Lombardy is also the wealthiest region in Italy. In Milan, the region's major city, the value added to factor cost per capita was \$16,960. For the region as a whole it was \$16,365 — while Italy's was only \$12,254.

In 1989, Lombardy had a workforce of 3,716,000 or 17.7% of the Italian total. Estimates place unemployment at between 5% and 7%, which is especially low when compared to a national Italian unemployment rate of 12%.

Structure

Lombardy is the economic powerhouse of Italy. Its total GDP comes to \$166 billion or more than 20% of the total GDP for the country and more than twice the GDP of Piedmont or of Emilia-Romagna.

The region's economy is currently in transition. Once heavily focused on the chemical/petrochemical and mechanical industries, it is now shifting toward the services sectors. The service sector accounts for 58% of the region's value-added at factor costs, while industry accounts for 40% and agriculture 2%.

The first European banks to be created in the Middle Ages were Lombard so it is no surprise that Milan is Italy's

Lombardy: A Major Trading Region, 1989

	Imports		Exports	
	Value (\$)	(%)	Value (\$)	(%)
Lombardy	54,915.9	36.8	42,532.4	30.8
Piedmont	17,087.3	11.4	20,454.1	14.8
Emilia-Romagna	10,085.99	6.8	14,967.1	10.8
Italy	149,411.2	100.0	138,078.9	100.0

Source: ISTAT, 1990.

undisputed financial centre. Italy's stock exchange, most of the major banks and over 40 foreign banks are headquartered there.

Like Emilia-Romagna, Lombardy has a high concentration of small but technologically-intensive firms. But while Emilia-Romagna's SMEs are focused on machine tools, textiles and clothing, SMEs in the Milanese area are heavily concentrated in sectors such as software, systems integration and other areas related to information technology. In 1986, 46.2% of employees worked in firms with less than 20 employees.

Infrastructure and capabilities

Lombardy spends more of its resources on R&D than does any other region in Italy. In 1987, the region spent \$2.2 million on R&D, accounting for 28.2% of total Italian R&D expenditures. Of that, 4.5% went to basic research, 57.4% to applied research and 38% to development. Neighbouring Piedmont accounts for another 21.5% of Italian R&D, thus adding to the density of the area's R&D activities. However, the private sector contributed more to R&D spending in Lombardy than it did in Piedmont. Corporations accounted for 35.3% of the total in Lombardy, as compared to 28.2% in Piedmont.

Lombardy is the Economic Powerhouse of Italy

	Total GDP \$	Region as % of total	Per inhabitant \$	Index
Piedmont	72.23	8.9	16.48	116.2
Lombardy	166.15	20.4	18.71	131.9
Emilia-Romagna	68.39	8.4	17.41	122.8
Italy	813.13	100.0	14.18	100.0

Source: ISTAT, 1990.

Like Montreal, Milan boasts four universities. Bocconi is considered the Harvard of private Italian universities and is especially noted for its business school, while Polytechnico is said to be the M.I.T. of Italy. The other two are La Cattolica and Statiale.

Milan is the hub of Italy's intra-European transportation network with train links to Germany, Switzerland, France and the East. It has two airports: Malpense and Linate.

Investors

Lombardy has a high rate of foreign investment. Four of the top ten firms in the region are multinationals, with IBM Italia heading the list. As 1992 approaches, mergers and acquisitions have increased, bringing in American and European firms, especially the British, French and Germans. The fusion of Italy's top microelectronics (semiconductors) company with France's electronics giant, Thomson, is a case in point. And following the failure of its strategic partnership with Olivetti, AT&T bought 25% of Italtel, a major Italian telecommunications company. In addition to the firms listed in the chart below, Sony, Esso and Du Pont are also in the region, as are large Italian

firms such as the telecommunications firm, Telettra.

Although Lombardy is host to many large Italian companies, several of Italy's most famous companies, FIAT and Olivetti for example, are based in neighbouring Piedmont. Piedmont and Lombardy maintain a close economic relationship.

Performance

Lombardy is a major trading centre. In 1988, 30.8% of national exports came from Lombardy, as compared to 14.8% from Piedmont and 10.8% from Emilia-Romagna. Lombardy also accounted for 36.8% of Italy's imports.

In 1988-89, Lombardy's private sector sales as measured in current market prices rose by 12%, a real growth in sales of 7% if inflation is taken into account.

Major firms in Lombardy

	Sales ('000 000 \$)	Employees	Ranking	National Ownership	Activity
SNAM spa	6,436.6	6,228	9	Italy	natural gas
IBM Italia	6,142.0	14,228	10	U.S.	computers
Enimont	3,364.6	11,319	13	Italy	chemicals
Tamoil	2,791.6	627	18	Middle East	petroleum
La Rinascente	2,442.0	12,894	21	Italy	commercial
Standa spa	2,366.1	13,675	22	Italy	commercial
Fina Italia	2,223.6	410	24	Belgian	petroleum
Monteshell	1,992.0	570	26	U.K./NI./I.	petroleum
Praoil	1,981.3	1,350	28	Italy	petroleum
Publitalia	1,812.4	645	30	Italy	advertising
Philips spa	1,743.8	4,072	32	Netherlands	radio, TV mfg.
Selm-Monted.	1,577.3	650	35	Italy	petroleum
Italtel	1,536.1	9,169	36	Italy/U.S.	telecomm.
Supermercati	1,344.6	5,368	41	Italy	supermarket
Egidio Galb.	1,321.6	7,700	43	Italy/France	food
Peugeot	1,078.7	405	51	France	comm. vehicles
Mondadori	915.9	4,447	60	Italy	publishing
Siemens	913.0	3,000	61	Germany	telecomm.
Bull	904.4	4,730	62	France	computers
Pierelli	899.7	7,525	63	Italy	rubber, tires
Danzas	884.5	894	65	Italy	transport
Snamprogetti	838.3	3,020	69	Italy	civil engineer.
Bayer	810.6	2,519	71	Germany	chemicals
3M	775.7	4,069	74	U.S.	office machines
Cogefar	768.6	4,566	75	-	civil engineer.

NI. = Netherlands
I. = Italy

Source: Dun and Bradstreet, and Mondo Economico.

Programs

The Lombard regional government does not have a service for dealing with foreign businesses. The main sources of help for Canadian companies interested in opportunities in Milan would be the Canadian Consulate, and the Ontario Government Office. They can also contact Assolombardia, the Lombard regional office of Confindustria, Italy's main business organization.

ASSOLOMBARDIA (Associazione Industriale Lombarda), Via Pantano, 9 20122 Milan, Tel. 39 (2) 88231-35.

Canadian Consulate General of Canada, Via Vittor Pisani 19, Milan. Tel. 39 (2) 669-7451.

Delegation of Ontario, Piazza della Repubblica, 12 Milan 20124. Tel. 39 (2) 859-2028.

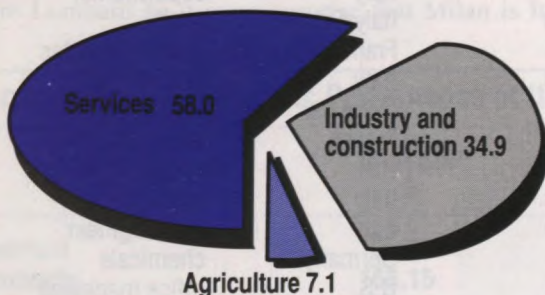
Rhône-Alpes

Rhône-Alpes is an important technology and production centre situated in southeastern France. Many large corporations have chosen to locate in the region because of its excellent supplier network. This capability is a major competitive advantage because it allows firms to contract out work they are better off not doing internally. Such a strategy lowers costs and enables companies to focus on their real strengths.

Next to the Ile de France, the Rhône-Alpes region has the largest and wealthiest population in France. Its capital, Lyon, is second only to Paris in size. Lyon and Grenoble are the two major industrial and research pillars of the region.

Rhône-Alpes covers 43,700 km² and is located along the borders of Italy and Switzerland between two mountain chains: the Alps to the east and the Massif Central to the west. It has a population of 5,175,000 concentrated around Lyon, the Rhône Valley, Saint-Etienne and Grenoble. Approximately 38 million people live within 300 miles of the region.

Employment by sector in Rhône-Alpes, 1987 (percentage of working population)



Source: Groupe Expansion.

Structure

The main industries in Rhône-Alpes are metallurgy, mechanical engineering, chemicals and pharmaceutical products, electrical engineering, foodstuffs and power supply. There are a variety of well qualified suppliers, subcontractors and consultants in the area. Partnership subcontracting is considered to be a regional strength.

Grenoble alone, for example, has 400 firms available for subcontracting, particularly in the following high tech areas: integrated circuits, printed circuits, wiring, coils, electromechanical products, precision engineering and plastic products.

Agricultural production is high. In 1988, the area accounted for 3.4 million hectolitres of wine, 1.2 million head of cattle, 13.4 million hectolitres of milk, and 894,000 tonnes of corn. Tourism, the main service industry, will receive a boost from the 1992 Winter Olympics which will be hosted within the region.

Infrastructure and capabilities

Rhône-Alpes is centrally located on a major north-south transportation axis. Superhighways from northern Europe, Paris, the Alps and southern France, Spain, Switzerland and Italy converge on Lyon. There are 53 million customers within a day's easy trucking. Ships of 5,000 tonnes navigate from the ports of Lyon on the Rhône River to Marseille. The capacity of the regional airport is being expanded, and Lyon is becoming an important node in the TGV (high speed train) network. The TGV can cover the 480 kms to Paris in just two hours.

More space is available here than in any other major European industrial centre at prices that are 50% lower than in Paris. Lyon has three science parks, two colleges of advanced technology and industry, and five major research centres. There are over 300 researchers in more than 100 laboratories and research centres in biotechnology alone. Grenoble has a total of 8,000 researchers (including 1,500 foreign researchers) at 8 research centres, 7 engineering schools, 2 university technology institutes, a school of commerce, a school of business and three universities.

Investors

More than 100 companies have decided to locate in Lyon over the last ten years, half of them coming from other countries. Grenoble has fifty-two foreign firms that altogether employ 13,000 people. The multinationals that have chosen to locate in the region include:

- Hewlett Packard (its world production facilities for personal computers)
- Monsanto (its agrochemistry and animals foodstuffs division, French headquarters and South European financial services)
- Carrier (its head office for France and its biggest manufacturing facility in Europe)
- Wang (software translation services division)
- Caterpillar (construction equipment)
- Saurer Diederichs (textile machinery)
- Becton, Dickinson (surgical equipment)
- Dow Chemical (pharmaceuticals)
- Fasson Avery Products (adhesives)
- Boehringer Mannheim (pharmaceuticals)

Performance

One sign of Lyon's economic development is its growing stock market. Due to the prosperity of local companies, its turnover rate rose from \$1.8 million in 1980 to \$3.61 billion in 1986.

Programs

The following points of contact can help Canadians identify regional institutions that promote partnering:

The Lyonnaise Economic Development Agency is a good starting point for companies interested in partnerships with companies located in Lyon:

Association pour le développement économique de la région lyonnaise (ADERLY)
20, rue de la Bourse
69289 Lyon CEDEX 02
France
Tel. (33) 78. 38. 10. 10

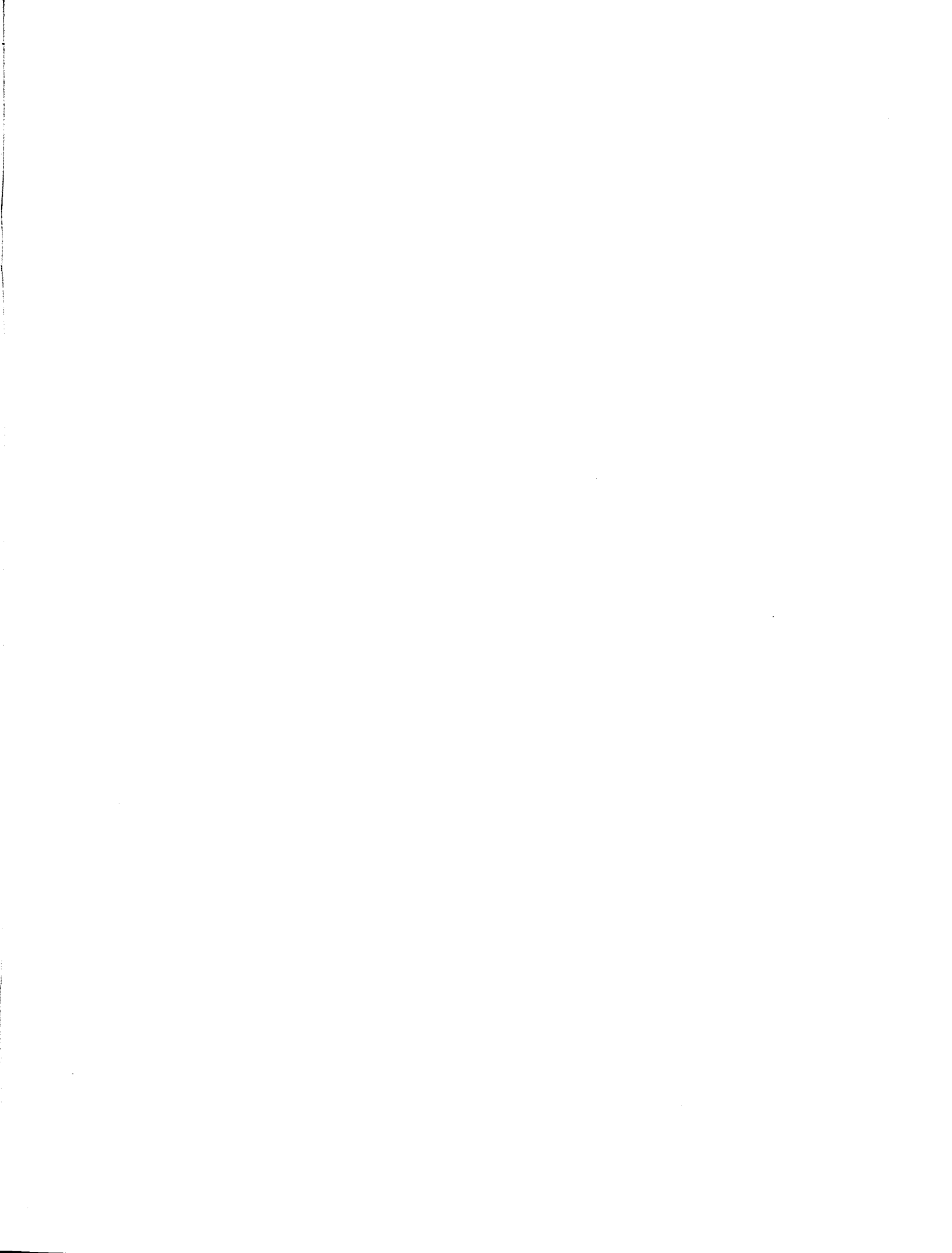
The Grenoble Development Agency (BIEN) has helped 450 firms set up operations in the area. It provides free assistance with project assessment and implementation; economic and statistical information; visits to suitable sites; and assistance for contacts with local authorities. There are also a variety of benefits available such as development bonuses for new jobs created, security for loans, low interest loans and allowances, a land price allowance of up to 99%, and assistance with industrial real estate.

Bureau D'implantation D'entreprises nouvelles (BIEN)
4, Place de Verdun
38000 Grenoble
France
Tel. (33) 76.44.23.26

DATAR, the National Government Foreign Investment Agency, is responsible for assisting foreign investors. In the U.S. and Canada, it is represented by the French Industrial Development Agency. DATAR can provide companies with expert advice on site selection, on the availability of incentives and on compliance with EC rules.

Most of DATAR's cash grants for industrial projects are only applicable for ventures located in France's more disadvantaged regions and therefore neither the Ile de France nor Rhône-Alpes qualify. However, there are government grants offered for the setting up of new R&D centres, engineering, management and software development operations in most of France's cities with the exception of Paris.

Délégation à l'Aménagement du Territoire et à l'Action Régionale (DATAR)
1, avenue Charles Floquet
75007 Paris
France
Tel. (33) 1 47.83.61.20
Fax. (33) 1 43.06.99.01



VI. EC Industry Sectors of Particular Interest

The fundamentals are sound

Aerospace

Automobiles and automotive parts

Biotechnology

Environmental protection

Financial services

Food and drink

Information technologies

The fundamentals are sound

This chapter focuses on some of the EC sectors that show particular promise for Canadian firms. These are sectors in which Canadian companies are internationally competitive and have shown substantial development capabilities. While some of these sectors are experiencing difficulties at present, their medium- to longer-term prospects are good. Current economic difficulties are not specific to a particular sector or region, they are a global phenomena and one that only makes it more important for Canadian businesses to find international partners that can help them to enhance their international competitiveness.

While short-term prospects for the EC economy are less favourable than they appeared last year, the fundamentals remain healthy. The U.K. and Spain are now in recession, but the German economy is still forging ahead. Other EC economies such as France and Italy are growing, although more slowly than previously.

In 1990, the EC's GDP is estimated to have increased by about 3% in real terms. In 1991, EC economic growth may slow to about 2.25%. This slowing is due to internal factors that were aggravated by the Persian Gulf War, the depreciation of the dollar, and current problems in the American economy. The growth of the EC economy is expected to rise to 2.5% in 1992.

GDP at constant prices (% change)¹

	1988	1989	1990*	1991*	1992*
Canada	4.4	3.0	0.9	-0.3	3.6
Belgium	4.3	4.0	3.5	2.3	2.8
Denmark	-0.4	1.3	0.9	1.0	1.8
Greece	4.0	2.6	1.2	1.0	1.5
France	3.3	3.6	2.5	2.5	2.8
Germany	3.7	3.3	4.3	3.3	2.0
Ireland	3.7	5.9	4.5	2.3	3.8
Italy	3.9	3.2	2.6	2.3	2.8
Luxembourg	4.3	6.1	3.2	3.0	3.3
Netherlands	2.7	4.0	3.4	2.0	2.5
Portugal	3.9	5.4	4.2	3.3	3.8
Spain	5.0	4.9	3.5	2.5	3.3
U.K.	4.1	2.2	1.5	0.8	2.5
EC	3.8	3.3	2.9	2.3	2.5
U.S.	4.6	2.5	1.1	0.3	1.3
Japan	5.7	4.9	6.0	4.3	4.0

* Provisional forecasts October 1990

¹ GNP for U.S. and Japan from 1989 onwards.

Source: EC Annual Economic Report 1990 and Conference Board of Canada.

Employment is still growing, but this will slow in 1991 and unemployment is expected to rise to 8.75%. Because EC currencies have been appreciating in value relative to other currencies, the EC has not been hit as hard as other economies by the inflationary effects of oil price increases. Nevertheless, inflation is increasing and might reach 5.25% in 1991.

Longer-term prospects look positive. The EC has a solid industrial infrastructure and the imminent achievement of a single internal market will provide an extra boost. Opportunities for companies in R&D should expand as government, private industry and the European Commission encourage a wide range of cooperative research programs. There should also be opportunities in public procurement, which represents about 16% of the EC's GDP — particularly for those Canadian firms that are subcontracting or partnering with EC firms. German unification is having a positive effect and companies in the EC will also be able to take advantage of new East European markets.

Liberalization and harmonization of the EC markets and increasing European cooperation is creating new opportunities in a number of emerging industrial sectors, especially telecommunications, pharmaceuticals, civil aerospace, and the food and beverage industry.

It should also be remembered that in difficult economic times, international competitive pressures only increase. More than ever, corporations need to spread their markets over North America, Europe, and Asia, though expensive strategies such as acquisitions and greenfield investment will be more difficult to sustain. Strategic alliances, on the other hand, offer less expensive ways to expand into important markets such as the EC.

In difficult economic times, companies also have to find more subtle ways of enhancing their position. Efficiency is not enough to guarantee success. Factors such as quality, design, innovative marketing and timely distribution become crucial ingredients in the formula for success. On the other hand, maintaining R&D commitments remains just as important as ever. Companies that cut back on investing in their technological future run the risk of losing their competitive position. In the words of the international business analyst, Professor Jordan Lewis, "In an economic downturn, firms that cut back lose their positions. Lost positions are very difficult to regain. Forming an alliance with another company can cut its costs, reduce investment and yet maintain its competitiveness by drawing on the resources of a partner."

Leading edge engineering skills have enabled Canadian companies to develop unique products such as the DASH 8 aircraft which has captured significant niche markets. The EC industry is well aware of the technological abilities of Canadian aerospace companies and is actively seeking new Canadian partners.

The Canadian aerospace industry is highly export-oriented. Exports to the EC consist largely of sales of Pratt & Whitney (now owned by United Technologies) engines, Boeing Canada aircraft and some proprietary products to original equipment manufacturers. Total exports will be boosted by Canadair's increasing sales of components to the European consortia, Airbus. Canadair is owned by Bombardier. Another Canadian success story is Spar Aerospace which developed the Canadarm and which is a leader in space station research and satellite communications.

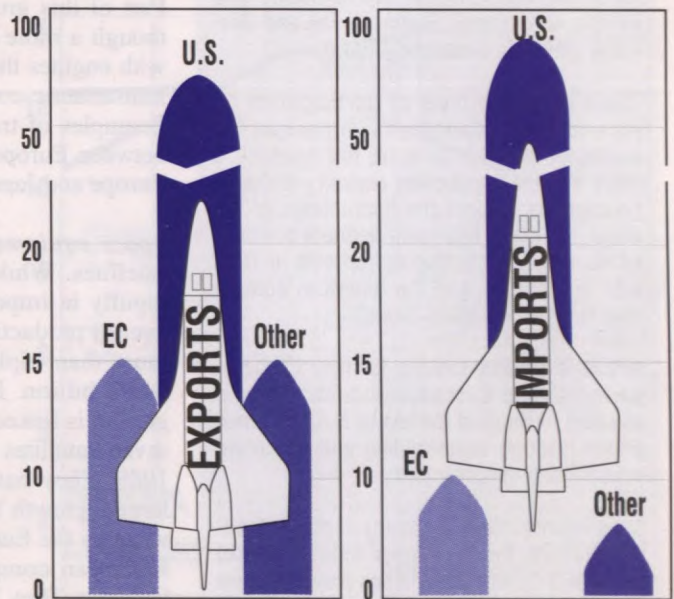
The European aerospace industry is the second largest in the world after the U.S. and still far ahead of Japan. Traditionally, military aeronautics accounted for a majority of EC sales in the sector, but this sub-sector is now decreasing in importance. On the other hand, the expanding product range of EC civil aeronautics has enabled EC industry to take advantage of a surge in sales. In the medium-term, growth in the European aerospace sector will come mainly from civil aeronautics.

The European aerospace industry has had a large impact on the formation of the EC Single Market. Such programs as Airbus Industrie, Panavia, Arianespace and the European Space Agency have played an important role in initiating the economic integration of Europe. The elimination of barriers to aerospace trade within the EC predates similar Single Market initiatives in other sectors.

Structure

European aerospace companies tend to be smaller and less profitable than their American counterparts. This difference in size has been a strong motivating factor behind cooperative action among them. R&D alliances have enabled EC aerospace firms to address their high fixed development costs. Alliances have also helped to solve another problem. Perceptions of national self-interest had led to an overcapacity of aerospace production in Europe. The formation of international alliances in the EC led to the opening up of the competitive market. EC industries are now competing in global markets, while their internal market is now a pan-European one. Strategic alliances have made the EC industry much more competitive, and Canadian and American companies are playing important roles in these alliances.

Aerospace Exports and Imports, 1985-89 (in percentage)



Source: Ernst & Young, ISTAT and AIAC.

Markets

There are five categories of products in the civil aerospace industry:

Commercial jets: Fifteen years ago, the European industry accounted for only 4% of world orders in the industry. In the late 1980's, it accounted for 25% of world orders and deliveries should remain at the same level for years to come. The Airbus line has had a major impact on this increase in production, but the production of aircraft with less than 100 seats such as the British Aerospace BAe 146 and the Fokker 100, has also been expanding rapidly. Europeans are also involved in the growth of the American civil aircraft. For example, companies in the Italian, Spanish and British industries have close associations with Boeing and McDonnell Douglas.

Commuters: Small commuting planes equipped with turboprop engines for regional connections are a very high growth segment. This area is dominated by European industry, which supplied 65% of the world market in 1988. In terms of orders, from 1987 to 1988, the world market grew by 36%, to 18,323 seats, while deliveries increased by 23% in 1988 to 11,050.

Airbus Industrie: a new world class competitor

One of the most durable joint ventures in the commercial aircraft industry is the Airbus Industrie which brings together seven major EC firms including the engine and airframe "national champions" of France [SNECMA & Aérospatiale], Britain [Rolls Royce and British Aerospace], Spain [Casa] and Germany [MBB via Deutsche Airbus].

There is a high level of participation by American and Canadian companies. For example, in order to meet the need for a more flexible production capacity and take precautions against the fluctuations of the dollar, the major European partners concluded huge subcontracting agreements in 1988 with Bombardier and the American companies Textron and Allied-Signal.

Airbus is actively looking for new Canadian partners. The European industry is also involved in most of the major U.S. civil programs through shareholding and important subcontracting agreements.

British-owned Dowty Canada supplies landing systems for the Airbus Industrie A330 and A340. Dowty Canada has located a new plant near Montreal. And Airbus partner Aérospatiale along with Aliena is seeking to buy De Havilland from Boeing to integrate it into its commuter aircraft line.

The Airbus Industrie was formed in the 1960s to develop a commercial aircraft for the European market, and it has gone through many changes, including the withdrawal of British participation in 1969, the entry of Dutch and Spanish participants and the return of the British in 1979. It was during this period that the A300 was developed. In the 1980s, two new aircraft, the A310 and A 320, were introduced and work was begun on the A330/A340, thus rationalizing the product line and establishing Airbus Industrie as a credible supplier of a family of medium-range aircraft with a variety of sizes. The consortium became a major world class competitor in the 1980s. It currently accounts for over a quarter of world-wide orders.

Helicopters: The European helicopter industry is the world's largest exporter of helicopters, supplying more than one third of the American market. In 1987, it delivered 392. Of these, 216 were for civil purposes. The peak year, 1982, saw 752 deliveries, while the low was 320 in 1985. Prospects for the EC industry are good, especially in exports. Aérospatiale, MBB, Westland and Agusta are key companies. Fleet is an example of a successful Canadian company in this area.

Aeroplane engines: This product group has experienced consistent growth. Part of this growth is linked to the rise in European aircraft production, though a more immediate factor is orders for equipping American planes with engines that were co-produced in Europe. In this area, there are more transatlantic cooperation agreements than there are intra-European ones. Examples of transatlantic alliances are the CFM international consortium between Europe and the U.S. for the CFM 56, and IAE between the U.S., Europe and Japan for the V 2500 engine.

Space equipment: Space equipment includes both launch vehicles and satellites. While it plays a minor part in the overall industry, it is rising rapidly in importance. In 1980, space equipment accounted for 3.1% of overall production; in 1987, it accounted for 6.1%. Consolidated turnover more than tripled from 1982-87, rising from \$644 million to more than \$1.92 billion. Employment increased from 13,720 to 21,000 jobs. This growth is linked to production of application satellites. The Europeans had seven satellites in orbit from 1980-84: 17 were put in orbit from 1985 to 1989. They have scheduled 20 for launch in the period 1990-1994. The largest growth factor in the space sector has been sales of launching services by the European firm Arianespace. Arianespace consists of the major European companies involved in the production of the Ariane rocket launcher. They launched 11 satellites from 1980-84, 36 from 1985-89, and have 60 slated to go from 1990-94.

Incentive programs

The aerospace industry has been the beneficiary of massive government assistance. Intervention has taken the form of direct financing of research and public orders. Airbus, for example, has been partially financed by national governments. On average, the total R&D of European companies in this sector amounts to 20% of turnover, 7% of which is self-financed. For American companies, R&D represents 17% of turnover, 4% of which is self-financed.

Outlook

Much of the EC aerospace production is still military. However, the military market for aerospace products has been declining due to reduced military budgets, improved East-West relations and a technology cycle which is currently in transition with second generation weapon systems due sometime in the mid-90s. On the other hand, civil aeronautics looks exceptionally good for the medium-term due to a sharp rise in air transportation and a growing need to renew the first generation of commercial jet airlines.

Automobiles and automotive parts

There are significant niche market opportunities in the EC for Canadian companies in all major automotive sub-sectors: vehicle assembly, original equipment parts and after-market parts. The emergence of the Single Market should lead to the development of a number of globally competitive EC firms and a restructuring of supplier relationships within the EC. Canada's well developed automotive suppliers industry is in a good position to take advantage of this changing market, particularly through joint ventures and technology sharing.

Increasing competitive pressures have made just-in-time systems and proximity to suppliers essential parts of competitive advantage in the sector. That means that Canadian companies will need a real presence in the EC. Often, strategic alliances will be the only way to go.

The 1970s and 1980s saw the establishment of a number of Canadian-owned parts manufacturers as significant North American players, such as Magna International (a widely diversified supplier with many small production facilities), the Woodbridge Group (insulation, plastic trim, seating), and A.G. Simpson (metal stampings). For these larger Canadian firms with the capabilities to act as "full-service" suppliers in Europe, joint ventures with accredited European suppliers can provide significantly increased market presence in the EC. Similar strategies have been used by Japanese suppliers in entering the Canadian market.

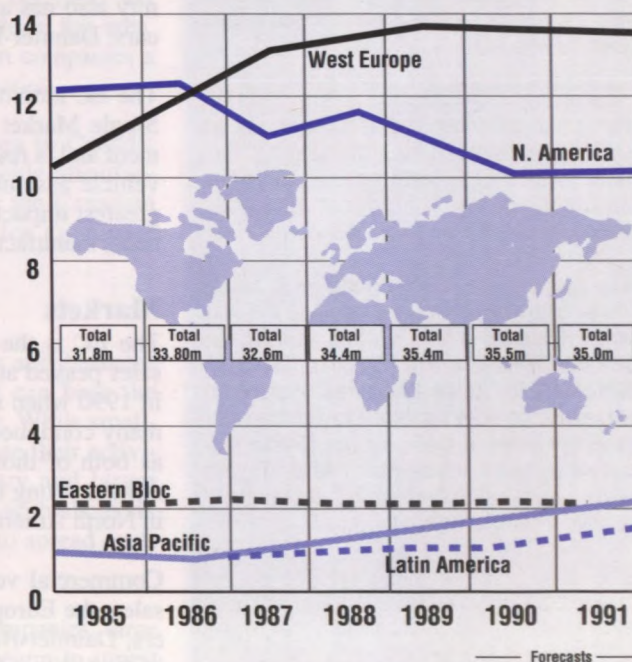
The heightened competition of the Single Market has made technology an even more important competitive ingredient for EC automotive firms. EC firms will be on the lookout for companies that can supply product and process improvements. That means increased opportunities for innovative small- and medium-sized Canadian automotive firms.

Canadian Automotive Exports to the EC, 1988 (\$)

Engines and engine parts	7,745,000
Other parts	80,711,000
Total parts	88,456,000
Passenger cars	56,349,000
Trucks	69,799,000
Other vehicles	27,428,000
Total vehicles	153,526,000
Grand total	242,032,000

Source: Statistics Canada.

World Sales of New Model Cars (millions of cars)



Source: DRI World Automotive Forecast Report, Nov. 1990.

The automobile industries of North America, Japan and the EC are approximately the same size: each produces about 12 million cars and trucks annually. This industry is vital to EC prosperity. It accounts for about 9% of the industrial value-added content and employs 1.8 million people directly. Counting both direct and indirect employment (from suppliers to body shops), the industry employs one out of ten workers in the EC. Until recently, EC companies have been oriented towards the internal EC market, but they are now facing mounting competition from world competitors, especially the Japanese. For the last half of the 1980s, the EC vehicles market experienced strong growth. From 1985-88, the market grew from 10.8 million vehicles to 13.4 million vehicles, an increase of 24%.

Mergers and alliances in the auto trade

The European automotive industry is going through a major restructuring process. For example, Ford Motor Company took over Jaguar, VW bought SEAT, and British Aerospace bought Rover. Volvo and Renault have signed a wide-ranging strategic alliance and the luxury builder, Saab, formed a joint venture with GM.

Equipment manufacturers are forming numerous alliances and joint ventures as well. For example, Renault and Peugeot are joint owners of Société de Transmissions Automatique which produces automatic transmissions for both companies.

The Japanese have been particularly active in the auto field. Honda was among the first when it formed a joint venture with British Leyland. Mazda, which has been linked up with Ford for some time, has decided to make use of Ford's factory in Germany to establish itself in that country. Nissan has built a factory in Sunderland, U.K.; Toyota plans a car plant in Derbyshire; and Honda is to build a plant at Swindon, U.K.

Structure

The European automotive industry evolved within a framework of technical, fiscal and physical barriers. While these regulations protected local producers from other European and non-European competitors, they also encouraged the survival of companies that are no longer internationally competitive.

Six major full-line manufacturers hold similar shares of the EC passenger car market: Volkswagen, Fiat, Ford, GM, PSA, and Renault. The Community also has a number of highly profitable companies that produce luxury cars: Daimler-Benz, BMW, and Porsche.

The EC automotive components industry has been highly fragmented. The Single Market is now encouraging a more diversified pattern of procurement and is resulting in pan-European alliances in the component sector. As vehicle assemblers look to suppliers from other EC Member States, the greatest impact is being felt by small- and medium-sized European components manufacturers.

Markets

The EC is the largest market for cars in the world. Five years of record sales peaked at 13.4 million cars in 1989 but steady growth came to an end in 1990 when new car sales fell 1.1% in the first 11 months. Sales in Germany continued to rise in 1990, but they were poor in the U.K. and Spain, as both of those economies went into recession. Demand is expected to remain strong in Germany, but to fall in other European markets, as well as in North America.

Commercial vehicles present a similar picture. After five years of record sales, the European truck market is in a downturn. The German truck makers, Daimler-Benz and MAN, are doing very well, but the steep downturn in the U.K. and Spain has hit British and Spanish manufacturers hard.

European production of trucks with a gross weight above 3.5 tonnes was down 10.7% in the first eight months of 1990. The U.K., Spain, Sweden and Netherlands have been hit the hardest. With the continuing exception of Germany, EC truck production is expected to keep dropping in 1991.

Outlook

Europe's automobile manufacturers may claim engineering and design leadership in some areas, but their overall competitiveness is poor by North American and Japanese standards. With the exception of luxury car builders who export to all parts of the world, sales by EC producers are restricted to European markets such as Spain, Italy or France.

In the medium term, the EC automotive industry is expected to suffer from the present recession. In the longer term, sales should pick up as a result of the emerging Single Market, rising demand from the East European market and calls for environmental protection. Analysts are forecasting a much brighter picture for 1992 to 1995.

Canada's dynamic and outward looking biotechnology sector has strengths in both pharmaceuticals and agriculture. It includes a number of new, energetic, small biotechnology firms that are especially active in the areas of vaccines, insulin, and diagnostic kits. The recent competition for control of Connaught Bioscience between Institut Mérieux (Rhône-Poulenc) on the one hand and Ciba-Geigy and Chiron on the other, attests to technical strengths in this area. In addition, Canada's strong resource industries give Canadian companies a head start in applying biotechnology in the resource-based industries.

There are about 220 organizations involved in biotechnology in Canada. Canadian biotech companies have an average of 6 products being manufactured and another 6 in development. In 1988, total sales for the Canadian biotechnology sector hit \$660 million. R&D accounted for aggregate spending of \$275 million.

Structure

The biotechnology sector in the EC, like the North American and Japanese biotechnology sectors, is geared toward large firms that can bear the extremely high costs involved in R&D, testing and marketing. While smaller firms play key roles in the industry, they tend to concentrate their activities on research for the traditional pharmaceutical industry and larger biotech firms. The typical biotech firm has strategic alliances with about six other companies, forming a complex network which serves to spread costs and risks, while offering protection from takeover bids.

In addition to maintaining alliances with small innovative companies, large firms, such as ICI (Imperial Chemical) in the U.K., have begun to invest heavily in biotechnology R&D. ICI is developing a biodegradable plastic produced by naturally occurring bacteria through a fermentation process. Some big European companies involved in vaccines are Elf-Sanofi and Rhône-Poulenc-Merieux, the purchaser of Connaught Labs in Canada. In the enzymes market, the Danish firm Novo and the Dutch firm GIST-Brocades are two active European companies.

The quality of European R&D is widely recognized and Europeans can rely on the vitality of several medium-sized innovative firms backed by the funding capacities of the sector's major companies. Despite this, the European industry has been facing difficult problems which the EC is now trying to redress:

- Expansion into multiple EC national markets was difficult due to the large variety of regulatory regimes and patent law systems. This problem is being addressed through the development of predictable, pan-European standards. This will increase the pay-off from the pan-European program of biotechnology R&D subsidies the EC is conducting.
- The EC's income support program for agricultural producers made the costs of fermentation feedstocks (starch, sugar) prohibitively high for a number of companies. In one example, a major application of enzyme technology (liquid sweetener) was commercialized in the U.S. rather than in the EC even though many of the key developments that made it possible were European. This problem has been addressed through refunds, but it was a serious setback to the development of biotechnology in the EC.

Nature of alliances with Canadian biotech firms

In 1989, 87% of Canadian biotech companies had formed strategic alliances:

- 47% of these alliances are in Canada
- 33% in the U.S.
- 13% in Europe
- 3% in Japan and
- 4% are elsewhere in the world

Canadian biotech companies reported that the most important factors they consider when looking for foreign partners were credibility, marketing expertise and access to technology.

IAF BioChem

IAF BioChem, a small Canadian biotechnical company has entered into a strategic alliance with a British-based multinational giant, Glaxo Holdings PLC. Glaxo has 38,000 employees and an annual R&D budget of over \$1.2 billion. IAF BioChem may be small, but it has a strong R&D base: 60 of its 80 employees are involved in R&D and 40 of these have Ph.D.s. The alliance will use Glaxo's financial, marketing and technical power to bring IAF BioChem's leading edge products to an international market.

IAF BioChem produces drugs, vaccines, fine chemicals and diagnostic kits. The company was started in 1986 by a group of scientists who bought the pharmaceutical facilities of the Armand Frappier Institute at the University of Quebec in Laval, just north of Montreal. They hold 10% of the shares while two institutional investors, the Quebec Savings and Investment Fund (Caisse de depot et de placement du Quebec) and the Solidarity Fund of the Quebec Federation of Labour, hold a majority of the shares.

IAF BioChem announced its strategic alliance with Glaxo early in 1990. Under the terms of the alliance, the British corporation paid \$15 million for exclusive rights to BioChem's new anti-AIDS drug throughout the world except for the U.S. and Canada. The two companies are working together on the preclinical research for the drug. It has been selected by the U.S. National Cancer Institute in 1990 as the best and most promising candidate to replace AZT, a drug notorious for its side effects.

In November 1990, the agreement between the two companies was extended to include another promising BioChem drug, this time an anti-cancer drug. It too is less toxic and more effective than any other existing compound of its type. The two companies have formed an R&D and marketing joint venture. Glaxo paid \$25 million for a 10% equity interest in it and kept a two year option for another 10% of IAF BioChem's shares.

Some observers estimate that because of such setbacks the European biotechnology industry is now three years behind Japan and the U.S. Europe has very likely lost its lead in molecular biotechnology, the U.S. dominates genetic engineering, and Japan is the world leader in advanced fermentation and separation technology.

Mergers and acquisitions have accelerated in the industry. EC companies have been acquiring or buying minority or majority stakes in both European and American companies. This may have more to do with the positioning of large companies on global markets than it does with 1992.

Markets

The various applications of biotechnology have one thing in common: they all make use of living systems to carry out tasks or to make new products. Pharmaceuticals account for 68% of the biotechnology sector in the world, while food and agriculture make up another 24%.

Biotechnology has been used to improve livestock and plants, but it has many other agricultural applications, including the development of fertilizers. Early work in this area by Saskatoon-based Microbio Rhizogen Corp. led to its purchase by Agricultural Genetic of the U.K.

The Canadian sector has a strong international advantage in those areas where biotechnology has been applied to the resource-based industries, particularly in forestry, mineral extraction and pulp and paper manufacturing. There are also a number of promising applications in pollution control.

The most frequent commercial applications in biotech areas, however, are found in medical applications and plant genetics. While new therapeutic products have been slow to emerge, the most promising commercial area lies in the development of new diagnostic kits. There are a number of successful Canadian companies in this area, including ADI Diagnostics, APO Diagnostics, IAF BioChem International, Biomira and Canadian Bioclinical.

The other currently commercially-viable sector of medical biotechnology is the manufacture of vaccines and immunostimulants. There are successful Canadian exporters in these areas for both human applications (Connaught Bioscience) and animals (Vetrepharm).

EC Program

The BRIDGE Program — Biotechnology Research for Innovation, Development and Growth in Europe — covers information infrastructures (culture collections, data processing), enabling technologies (protein design, molecular modeling, gene mapping, biotransformation), cellular biology and pre-normative research (e.g., safety assessments and the evaluation of toxicity). Scheduled between 1990 and 1993, BRIDGE has a budget of \$96 million.

Outlook

Because Europe lags behind somewhat in biotechnology, much of the trade-liberalizing consequences of the Single Market will benefit non-EC firms. Thus the principal competitors to Canadian firms entering the market will be American and Japanese firms. This will be tough competition, but there are openings to be exploited and a number of Canadian firms are already successfully taking advantage of them. Many of these Canadian firms have chosen to qualify as European companies by setting up a European subsidiary, either wholly-owned, jointly-owned with another Canadian company, or as a joint venture with a European firm.

Environmental protection

Canada has a diverse environmental protection sector that includes thousands of firms. The integration of the EC market presents a number of opportunities for Canadian firms in environmental services and in certain niche-product markets, including water and wastewater treatment equipment, monitoring equipment, toxic waste disposal and air quality control.

The environmental services sector is a new and burgeoning industry. Attempts to estimate the size of the EC environmental protection industry have varied from about \$66.3 billion in 1987 to as much as \$118.4 billion in 1989.

Although the industry itself is young, many of the firms involved in it in the EC are quite old. They come from such diverse sectors as mechanical engineering, chemistry, construction, instrumentation and urban services. There is also a significant number of new companies: in Germany, for example, 49% of companies that enter the sector are new businesses.

Structure

The environmental industries of each Member State vary a great deal. There are differences in concentration, vertical integration, public/private ownership, and areas of expertise.

With several thousand companies involved, the EC environmental protection industry is not highly concentrated. Many small- and medium-sized businesses view the sector as a secondary area of activity. Businesses focusing on the sector include equipment manufacturers who have diversified into such areas as air and water pollution and waste disposal. Deutsche Babcock, the largest of the German environmental firms, is an example. Engineering businesses that deal with water, emission treatment, the elimination of waste or noise pollution are also in this core group.

The Structure of the Major EC Environmental Services Industries

	FRG	U.K.	Denmark	Italy	France
Public/private balance*	Majority public 50/50 for MSW collection**	Privatization under way	100% public	Majority public	Majority public
Engineering (main structure)	Integrated industrial groups	Independent or integrated businesses with operations and management	Independent or integrated in industrial groups	Integrated industrial groups	Integrated groups of urban services
Diversification main equipment suppliers***	Strong	Weak	Moderate	Weak	Moderate
Vertical integration	In process	In process	Limited	Limited	Strong
New entrants	Electricity distributors, chemical and construction companies	Construction groups and industrial cleaning services	Chemical groups	Construction groups and state-owned groups	Construction groups

* management equipment of public entities

** MSW = municipal solid wastes

*** water, air and waste.

Source: Recherche developpement international.

Agreements between European Environmental Firms, 1988-89

Companies	Type of agreement	Area
Thames Water (U.K.) — Ansaldo (I)	Joint venture	Environmental management
Walther(FRG) — Alstom (F)	Participation in a German firm	Emission treatment stationary source
Kruger (DK) — Hölter (FRG)	Joint venture	Air and water treatment
DDS (DK) — Lyonnaise (F)	Cooperation in R&D	Water treatment
Biffa (U.K.) — Antwerp Waste Management (B)	Joint venture	Urban waste disposal
Italgas (I) — Générale des Eaux (F)	Joint venture	Water treatment
TNEE (F) — Deutsche Babcock (D)	Agreement/German licence	Emission treatment
Lyonnaise (F) — Fiat Engineering (I)	Joint venture	Water treatment
ATV (S) — Northumbrian Water (U.K.)	Joint venture	Water treatment

B = Belgium
S = Spain
U.K. = United Kingdom

FRG = Germany
F = France

DK = Denmark
I = Italy

Source: Recherche developpement international.

There are a number of chemistry, construction and industrial giants gathered around this central group of businesses. While they are not heavily involved in the sector yet, their interest will probably grow in the future. In the meantime, many have started environmental divisions, for example, Focsa (Spain), Hozmann (Germany), Bouygues (France) and Wimpey (U.K.). Other major industrial groups that are involved include ASEA Brown Boveri and RWE (Rheinische Westfälische Elektrizitätswerke).

EC firms are often active in non-EC markets. A French firm is in the number one position in the field of water supply in North America, while a U.K. firm holds the number four position in the collection and treatment of waste. At the same time, a number of non-EC firms are doing very well in the EC markets. For example, non-EC firms hold 80% of the market in environmental control instruments.

With the harmonization of EC environmental standards and the liberalization of public procurement in the EC, the industry is becoming more concentrated and more international. There has been a proliferation of alliances and M&As between EC firms and numerous subsidiaries have been created. A large number of alliances with non-EC firms have also been formed. An example is the British-Canadian-American group formed under Atwood and Laidlaw.

Markets

Environmental services markets often open in the wake of legislation, flourish for a few years and then settle back to a subsistence level. As a result, the business is subject to

short cycles and few companies are able to focus exclusively on the sector or make long-term plans in it.

There are huge discrepancies between markets for environmental services in the different Member States of the EC. The German market is larger than the French and the U.K. combined, and 50 to 100 times larger than the Greek, Irish and Portuguese combined. These differences are caused by variations in population, industrial activity and wealth, as well as by the differences between the environmental policies of the Member States.

The most popular modes of EC market entry among non-EC environmental firms appear to be partnering or establishing a local office. There are a number of reasons for this. While strong demand will create many opportunities for Canadian environmental protection firms in the EC, Canadian firms in this sector are likely to find that their strategic options are limited by a lack of qualified engineers.

Exporting to the EC tends to work best in the small national markets or in the markets of Southern Europe. For Canadian manufacturers of environmental goods, direct exports to the EC will be more feasible for high-value, low volume goods. Otherwise, Canadian manufacturers would probably be better off establishing a manufacturing presence in Europe, most often through licensing or partnering with European firms, rather than through greenfield investments or acquisitions which tend to be more risky and expensive.

Acquisitions may make more sense for the larger environmental service companies. For example, Laidlaw acquired Atwoods, a U.K. waste management firm, and SAUR (a unit of the Bouygues conglomerate in France) bought a part of two Spanish firms. But even then, many of these purchases involve a minority position and often preserve the local character and ownership of the firm, an important consideration in public sector contracts.

Programs

The development of new technologies plays an important part in the sector, affecting areas as diverse as mechanical and chemical procedures and filtering to advanced biotechnological methods and lasers. Because of the uncertainty and short life-span of environmental markets, medium- and long-term R&D by the EC private sector has tended to lag. In order to overcome this, some EC countries are spending a good deal of money, especially Germany which in 1985 spent more on R&D in this sector than the U.S. and all the other EC countries combined.

ENVIREG is an EC program that supports larger scale environmental projects in the poorer regions of the EC. ENVIREG funding for projects complements aid provided by regional governments. Companies cannot apply directly to the program but must work through the regional governments.

While ENVIREG provides larger scale regional aid, MEDSPA (Community Action for the Protection of the Environment in the Mediterranean Basin) provides venture capital funding. Proposed projects must offer innovative solutions to environmental problems and other communities must also benefit from them. Total funding for the project is modest: \$11 million in 1990, \$16 million in 1991 and \$18 million in 1992. European companies must apply directly to the Commission, while Canadian firms would have to get the support of the regional or provincial government where the project is located.

The Network for Environmental Technology Transfer (NETT) is an EC-sponsored database which provides information on suppliers of environmental protection technologies. Hundreds of firms of all sizes and from all environmental sectors have been listed. Non-EC companies can be listed at a higher fee.

Under the Environmental Program for the Mediterranean, the World Bank and the European Investment Bank (EIB) assist projects aimed at protecting the Mediterranean Sea. Support is provided for project design and implementation, institution building, policy advice and formulation, and the mobilization of financial resources. There are four priority areas: integrated water resource management, management of hazardous wastes, prevention and control of marine pollution from oil and chemicals, and coastal zone management. Half of the EIB's environmental spending since 1980 has gone into the program, amounting to almost \$3.3 billion. The World Bank spent \$2.3 billion over the same period.

The purpose of the EC program, REWARD (Recycling Waste Research & Development), is to increase recycling, alleviate problems of waste disposal and environmental pollution, and improve the management of raw materials and energy resources. REWARD is scheduled to run from 1990 to 1992 with a budget of \$9.0 million. It is open to all universities, higher education institutes, research organizations, and industrial enterprises established in the Member States. The program is also open to international organizations and to enterprises from non-Member States which, through an appropriate agreement, are partly or wholly associated with it. Proposals must specify the location where the various parts of the R&D are to be carried out.

In July 1988, 14 Eureka environmental projects were launched involving 78 participants, at a total estimated cost of \$580.4 million. A framework program for the development of technology projects was set in motion in 1989.

Outlook

The prospects of the European environmental sector are vast because of increasing public demand for a healthier environment, expanding demand in other parts of the world, and the on-going demand for operation and maintenance service on an increasing capital stock of environmental protection equipment. Because demand is tied to political decisions, the medium-term view is uncertain, but over the long-term, European environmental services is a sector with a promising future.

Financial services

EC markets present a variety of opportunities for Canadian financial institutions. There is a growing demand in Europe for more sophisticated financial products, and the offerings of Canadian firms are state-of-the-art.

Financial services in the EC have been growing steadily both in terms of the number of people the sector employs and in terms of value-added to the economy. However, this share varies enormously from country to country — from over 4% of France's value-added in the total GDP to almost 15% of Luxembourg's value-added. The particularly high share of the financial services in the economies of Luxembourg and the U.K. are due to the international character of their financial markets. London is still the financial centre of Europe.

Despite the rapid expansion of the sector in Europe, it is still not as developed as in other industrialized countries. For example, in 1987, the share of stock market capitalization in the EC was 21%, as opposed to 33% in the U.S. and 42% in Japan.

Structure

The EC banking sector is dominated by the private sector. There is also a trend towards privatization in the EC. Public sector banks tend to specialize in areas such as supplying longer-term investment financing. At present, banking accounts for 65% of the employment in financial services, but increasing competition and concentration in banking will eventually lead to fewer jobs in this sub-sector.

The insurance industry is an important part of the financial services sector. In 1987, the value of gross premiums received by insurers totalled \$339.6 billion, or about 5.5% of European GDP. Employment in the industry is around 1.2 million people. The insurance industry experienced a high rate of growth between 1960 and 1980 but in the face of American and Japanese expansion in the 1980s, its market share fell from more than 27% of the world market to less than 23%. Still, annual rates of increase within the EC have remained high.

EC countries are developing a common market in the financial services sector in progressive stages. Capital flows, banking, and insurance services and the stocks and bonds market are being liberalized (see Chapter I). This process is leading to a diversification of activities both for banks and insurance companies. For example, banks are selling insurance policies of affiliated insurance companies and insurance companies are dealing in pension funds. As a result, the differences between various types of institutions are becoming blurred. It is thought that banks will try to use technology to create a barrier to competition from institutions that are not banks.

A pattern of loose confederations is emerging in the European financial services sector. In general, institutions have found that strategic alliances are more flexible tools than mergers. Alliances between banks and insurance companies are common, especially in Germany.

A classic example of a European banking and insurance partnership is the cooperation agreement which the Banque Indosuez signed with View Rotterdam in the Netherlands and with Baltica Holdings, a Danish insurance and finance company. The deal enabled Banque Indosuez to add Scandinavia to its EC-wide networks, while the smaller Baltica Holdings can now offer its Danish corporate clients access to a pan-European network. The deal will also provide Baltica Holdings with improved access to capital markets, allowing it to grow as a specialized Danish merchant bank. And it provides Baltica with new capital and protection against a hostile takeover.

There is significant investment in new technology as institutions try to increase productivity and reduce costs. The banking sector is dominating the development of Eftpos (Electronic funds transfer at the point of sale). Retailing organizations expect to hold a share of about 25% of Eftpos networks by 1995. Credit card companies and savings/mortgage institutions are expected to be involved. More than half of the customers are likely to use the network.

Markets

Rather than providing global banking services, Canadian banks in the EC are focusing on niche products of a high calibre as well as providing their international corporate clients with key services. Service is provided by small teams of highly skilled and mobile specialists operating from a central base, usually London.

Canadian brokerage houses that establish in Europe will find a good market for Canadian equities and bonds. Properly promoted, the thorough research capabilities of the Canadian securities industry should find a receptive market in Europe.

Canadians can also offer sophisticated experience in the management of mutual funds. France, Luxembourg and the U.K. contain many funds, while Italy and Spain are becoming large markets for foreign mutuals since local funds cannot keep up with the demand.

There has been a large and growing demand for insurance and pension products. While most EC Member States have comprehensive social security systems, there is a concern that these systems may not provide an adequate level of protection. The markets with the most potential

are Italy and Spain, where the demand for insurance products is expected to grow by 20-30% for the next five years. France also looks very promising.

Insurance markets vary greatly from country to country. The largest national markets are Germany, the U.K. and France. The lowest proportions of life insurance to total business were in Portugal, Spain and Italy.

EC insurance markets in the EC are fairly concentrated. In life insurance, the ten leading companies in four out of the nine EC countries for which information was available shared more than 90% of the market. In only one EC country is the market share of the top ten below 50%. The markets for non-life insurance are less concentrated. In two EC countries, the ten largest firms write more than 80% of the business, in five other EC countries the share of the leading ten companies is below 50%.

Although Canadian insurance companies do not have distribution networks in the EC, they have the kind of sophisticated services in life insurance and pension products that EC companies are looking for — an excellent basis for mutually advantageous alliances. For example, the Desjardins Group has signed an agreement with another cooperative movement, Confédération Nationale du Crédit Mutuel de France. The two groups plan to collaborate on several types of activities and to assist each other in each other's market.

EC Financial Market Compared to the U.S. and Japan (in percentage)

Insurance¹	
EC	21.60
U.S.	45.50
Japan	19.80
Stock market²	
EC	27.64
U.S.	47.70
Japan	114.30
Banking³	
EC	33.30
U.S.	14.50
Japan	36.40

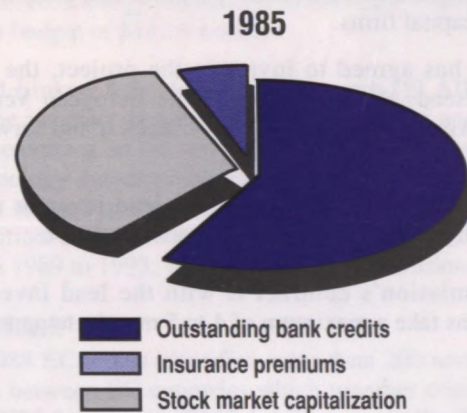
¹ Insurance market share per head (1986).

² Stock market capitalization as % GDP (1987).

³ Banks share of consolidated international claims (1987).

Source: Eurostat, DRI Europe.

Composition of the Sector (% of GNP)



Source: Eurostat, DRI Europe.

Programs

Venture Capital Consortia

The Venture Capital Consortia pilot system is aimed at encouraging the growth of European SMEs through the formation of cross-border syndicates of venture capital companies. The EC is participating in the project as a sponsoring and funding agency, providing support in the form of non-interest bearing grants to be converted into equity by the lead investor within certain limits. The EC will supply 30% of the syndicate's equity investments by full members of the European Venture Capital Association (EVCA), but not less than \$74,300 and not above \$445,800.

The objective of this scheme is to create a European-wide market for venture capital investments, encouraging innovation syndicates of European Venture Capital members. Since its launch, the Commission of the European Communities (CEC) has approved 35 Venture Consort projects for a total contribution of \$8.05 million.

Firms wishing to take advantage of this program should conform to the following procedures:

- At least two different companies established in the Community prepare an investment proposal and submit it to venture capital firms.
- Once it has agreed to invest in the project, the lead investor sends the application to the European Venture Capital Association office which checks it and forwards it to the CEC.
- The CEC informs EVCA and the lead investor as to whether it will contribute to the financing or not.

The Commission's contract is with the lead investor. Applications take a maximum of 4 to 5 months to approve.

Outlook

The integration of the EC financial services market will have a profound effect on the whole economy. Investors will be able to access a broader range of financial instruments and they will be able to diversify their portfolios. The resulting capital flows will also have the effect of leveling off interest rates, improving profit margins and therefore improving the efficiency of capital throughout the EC.

Given the sophistication of the Canadian financial sector, Canadian companies that make their move now will probably be able to find solid European partners but this will become increasingly difficult as EC firms position themselves for the Single Market.

Food and drink

Canadian food and beverage companies should be on the lookout for niche opportunities in the EC. To take advantage of them, they will need to increase their competitiveness and adopt international standards. Firms that ignore the huge new European market may find themselves unable to cope with even domestic competitive pressures.

So far, few Canadian companies in this sector have responded to the Single Market challenge. Food and beverage firms interested in international markets have been taking the U.S. and Asia more seriously. Still, many Canadian firms are concerned about Europe 1992 and plan to develop responses in the near or more distant future. They should, however, carefully research their EC markets to determine local preferences before attempting to launch a product.

The food and drink industry is one of the largest in the EC with 2.2 million people or 2.1% of total EC employment and production that reached \$53.1 billion in 1988. The EC was the world's largest producer in this sector in 1980, but by 1985 the U.S. had taken first place. Nevertheless, EC production of food and drink increased by 21% from 1985-88 and the industry maintained a positive balance of trade throughout the 1980s.

Structure

Food and drink companies are buying and selling each other and forming new alliances at record rates. Some firms are raising huge amounts of capital in order to buy other companies while others are eager to sell off unwanted plants. This process is part of a global movement towards internationalization of the industry in response to exchange rate and raw material fluctuations. Two types of groups are emerging: conglomerates with diversified holdings such as Hillside Holdings, Hanson and Beatrice (BCI Holdings) and more specialized or focused groups such as BSN, Ferruzzi, RJR Nabisco and Phillip Morris.

Europe has the two largest food and drink companies in the world, Unilever and Nestle. The next eight corporations among the top ten, however, are American. With the exception of the largest firms, EC companies do not seem to have developed Single Market strategies and American firms are thought to be better placed to exploit emerging Single Market opportunities.

The food and drink industry in the EC contains a great variety of sectors, types of firms and business practices. It tends to be more concentrated in northern Europe. Rationalization has begun in Italy, Spain and Portugal, but the industry in those countries is still highly fragmented and vulnerable to the giant food groups of the north.

Major EC Food and Drink Producers, 1988 (in percentage)

	Share of EC Production	Share of EC's GDP
France	20.4	19.9
Germany	19.6	25.4
U.K.	18.9	17.1
Italy	13.8	17.4
Spain	9.7	7.2

Source: EC 1990.

Markets

EC consumers tastes are moving towards more elaborately processed food and products with a higher technological and service element. Three types of products are becoming increasingly important:

- *higher-quality products* such as low-fat milk, fresh poultry, high-fibre products, whole wheat bread and products with fewer additives;
- *higher-convenience products* such as breakfast cereals and meals that can be quickly heated in the microwave;
- *high-variety products* such as fresh juices and exotic fruits.

Many firms are exploring improved methods of modified atmosphere packaging, a new technology which uses nitrogen and carbon gases to preserve fruits, vegetables and bakery goods in sealed containers.

The type of strategies being taken by Canadian food and beverage firms in the EC tend to depend on their size. Many of the large ones are creating new firms or acquiring existing EC companies. With the exception of McCain, which has carved out a major stake in the European market for frozen french fries, most such activity has been limited to the major Canadian distilleries and breweries. For small- and medium-sized firms, responding to Single Market opportunities more often involves finding a good sales agent or alliance partner, improving productivity and adopting international norms. Examples of Canadian firms of this type are A. Lassonde et Fils, Les Miels Labonté, Les Viandes Olympia, and Island Shipping Ltd.

EC Programs

European Collaborative Linkage of Agriculture and Industry Through Research (ECLAIR) promotes useful applications of recent developments in the life sciences and biotechnology. Scheduled to last from 1988 to 1993, it has a budget of \$112.9 million.

Food Linked Agro-Industrial Research (FLAIR) focuses on the interface between consumer, industry and research, concentrating on the downstream end of food science and technology that emphasizes the measurement and enhancement of food quality, food hygiene, safety and toxicology, nutrition and wholesome aspects. FLAIR is scheduled from 1989 to 1993, with a budget of \$35 million.

Outlook

A 1988 EC report identified more than 200 non-tariff barriers between EC countries which together cost the industry \$725.5 million to \$145.1 million annually. These barriers often apply to trade in food and agriculture products. They consist mostly of packaging and labelling regulations, specific import restrictions (e.g., sanitary laws in the U.K. or Spain), content or denomination regulations (e.g., for beer).

The elimination of non-tariff barriers will allow companies to buy less expensive ingredients, to reduce their packaging and labelling costs and to eliminate bureaucratic and administrative restrictions of imports. It has been estimated that their elimination will save approximately 2-3% of the sector's total value-added. The sector areas that will benefit the most are oils and fats, chocolate, ice cream, pasta, saccharine, beer and plastic containers.

Share of Products in Total Food and Drink Production, 1988 (in percentage)

Slaughtering	18.3
Dairy products	17.9
Compound feed	7.8
Vegetable and animal fats	5.1
Preserved fruits and vegetables	3.9
Frozen products	4.2
Biscuits and rusks	7.2
Flour	3.6
Others*	32.0

*Includes poultry, olive oil, ice cream, margarine, bread, alcohol and spirits, brewing and malt, soft drinks, sugar, coffee, tea and vinegar.

Source: EC 1990.

Information technologies

Canadian information technology companies have developed impressive global niches over the last decade. They are well positioned to take advantage of changes arising out of the Single Market. In telecommunications, the contributions of Canadian firms such as Mitel, Northern Telecom, and Newbridge are well known, but many more can be named, such as Glenayre Electronics, MicroTel, Develcon Electronics or Gandalf Technologies. Instrumentation technology is another area of Canadian strength, featuring firms including Lumonics, Sciex, and Westhead Industrial Systems. Canadian companies have also demonstrated leadership in software development, carving out niche markets in areas like geographic information systems, resource exploration, and hospital systems.

Information technologies is a vast and rapidly evolving industry that encompasses computers, telecommunications, microelectronics, instrumentation, electric components and software. With the growing integration of voice, data and visual communications, these areas are becoming hard to distinguish. They have given rise to a variety of telecommunications services such as mobile telephones, new broadcasting technologies, facsimile, videotex, telex, packet-switched data, and circuit-switched data.

The EC produces almost a quarter of the world's computer and electronic goods. EC electronics production represents 8% of overall industrial production in the EC and has been one of its fastest growing sectors. Between 1980 and 1988, telecommunications and audiovisual equipment grew at a rate of 9% annually while computers and office equipment grew at 14%.

Structure

Global information technologies is a highly concentrated industry. For example, in telecommunications, the ten largest companies control about half of the market. In the EC, the sector is dominated by large firms. For example, the two largest EC employers, Siemens and Philips, are heavily involved in the industry. Philips is the seventh largest company in the EC. In 1988, its worldwide turnover reached \$34.8 billion, 61% of which was generated in Europe.

The EC industry is facing tough competition and its major corporations have been focusing on their strengths since the early 1980s. For example, Canadian General Electric (CGE) gave up making diesel engines and low tension gears in order to strengthen its communication and information activities.

Tough competition has led to increasing internationalization in the sector. In order to survive, European firms have had to establish themselves in the U.S. market. This, added to the astronomical costs and risks involved in the development of new products, has stimulated M&As and strategic alliances both at home and abroad. Although

Nixdorf started to penetrate the U.S. market successfully in the late 1980s, it had to be acquired by Siemens in order to remain healthy. Conversely, CGE and ITT concluded an agreement which enabled CGE to increase its presence in different EC countries and to a lesser degree in the U.S. In order to keep up with internationalization, ICL of the U.K. was acquired by Fujitsu of Japan.

Telecommunications: The public sector is a dominant force in the telecommunications and electronic information services sectors, although this is changing with Community-wide liberalization. There is a trend towards privatization; for example, British Telecom was privatized in 1984 and has given regulatory and supervisory authority to a private company, Oftel.

Developing Europe's telecommunications infrastructure is essential to achieving the full benefits of the Single Market. The waste and lack of competition associated with the fragmentation of public procurement in the Community is estimated to cost approximately \$30 billion per year. With this in mind, in June 1987, the EC Commission issued a Green Paper on telecommunications containing a program of regulatory change to meet the twin challenges of 1992 and technological development.

As a result, public procurement has been opened for all value-added services within and between Member States, and the movement of terminal equipment and receiving antenna equipment within and between Member States has been liberalized. Any measure that prevents the movement of goods between Member countries has been prohibited. Barriers to imports and legislation that could indirectly have the same effect have also been prohibited. For example, it is no longer possible to require that certain products conform to standards which only national manufacturers could meet. Restrictions which discriminate against non-nationals seeking to establish professional activities in EC countries have also been prohibited. These measures also seek to ensure the publication of tender notices and to prohibit the illegal exclusion of bidders or applicants from Member States, for example by fixing discriminatory selection criteria. These provisions are expected to be fully implemented by 1994.

Computer electronics and software: The few European companies still committed to microchip production have placed their faith in JESSI - the \$5 billion Joint European Submicron Silicon research initiative. However, JESSI has encountered problems. Philips has cut its commitment to the program while American and Japanese firms established as manufacturers in the EC are demanding the right to participate in it. These newly arrived Americans and Japanese include Texas Instruments, which is building a factory in the U.K., and Hitachi and Mitsubishi, which are setting up in Germany.

Information technologies tend to be very concentrated but this is not the case for computer software. There are 13,000 to 15,000 EC software companies, employing 287,000 people. The diverse products and services in this sector are supplied by a variety of different companies including hardware manufacturers who sell software, systems houses, independent software vendors, professional consultancies, computing centres, software training specialists, and business information services.

The sector has developed differently in the various Member States. Software packaging is stronger in Germany, while custom software and consulting is more highly developed in France.

Market

The importance of the sector to the EC Member States varies considerably. For example, because of non-EC investment in production facilities, information technologies accounted for 17% of Irish industrial production in 1988, but only 5% of Italy's industrial production and 3% of Spain's.

The vast amounts of money required for R&D mean that product prices are initially very high to recoup the investment in new products. Prices then fall to discourage other competitors. European companies tend to enter the market late, after the price has fallen, and for this reason they often have a hard time paying back their investment.

Telecommunications: In the telecommunications industry, the financial stakes are considerable since the EC market accounts for almost a quarter of the total world market. Canada has a well developed telecommunications industry, and it has the strengths necessary to do well in the EC. The contributions of Northern Telecom to digital telecommunications and Mitel to small analog PBX telephone systems is well known, but Canada has a large number of small- and medium-sized businesses with proven track records too. The success of smaller firms will depend on their ability to identify and fill market niches in the EC.

Value-added telecommunications services or networks (VANS): In this area, Canadian firms will probably meet with more success as consultants or partners to EC-based firms, rather than attempting to provide the services which depend on securing access to the public networks. Canadian firms have a good deal of expertise in this area, and would be valuable partners for EC firms. Airline reservation kiosks are one type of sophisticated VANS application. They provide automated ticketing services similar to automated teller services provided by banks.

Computers: Worldwide, computer services and software have been the fastest growing areas in information technologies. This is particularly true in Europe, where sales have been driven by the integration of European markets. In fact, European sales have been major factors in keeping the North American industry afloat. For example, in 1989, 71% of IBM's net income came from Europe, making up for its losses in the U.S. market. As a result, the world's computer companies are scrambling to position themselves in Europe.

Canadian software professional (systems) services firms have been finding niches in which they can be successful. Many service firms have followed their large customer firms into international markets. Successful Canadian niche-oriented service firms include GEAC in library services; Cemcorp and its distributor Unisys in the educational materials field; LOGIBEC in the health care sector; and Brant in the artificial intelligence field.

Top computer software and services firms in Europe

IBM
 Unisys
 Cap Gemini Sogeti
 Siemens
 Digital
 Finsiel
 Reuters
 Transpac
 Olivetti
 Bull
 Datev
 Sligos
 GSI
 McDonnell Douglas
 Scicon
 Volmac
 Sema Metra
 CISI
 Andersen Consulting
 Computervision
 Computer Associates
 ICL
 Telesystemes
 Thorn Software
 Microsoft
 Logica
 CCMC
 CAP Group
 Intergraph

Top independent custom software and systems development firms

Cap Gemini
 SD-Scicon (from Systems Designers, U.K., and Scicon International)
 Sema Group (from Sema Metra, France, and Cap Group, U.K.)
 Finsiel (Ireland)
 Sligos (France)
 GSI (France)
 Datev (Germany)
 CISI (France)
 Logica (U.K.)
 Thorn Software (U.K.)

The decision by the Commission of the EC to adopt integrated services digital network (ISDN) as the basis of a future EC telecommunications-information network also opens up numerous opportunities for new software and integrated systems development.

EC Policy and Programs

The two major EC programs for information technologies are RACE and ESPRIT. Their combined five-year budgets are \$3.2 billion. When the matching private sector contributions are included the two programs involve \$6.4 billion.

The main thrust of the RACE initiative is to develop the next generation in telecommunications infrastructure. It has also sought to develop and harmonize standards for an ISDN, digital mobile communications and future broadband communications. And it is promoting Europe-wide open standards for terminals and equipment.

ESPRIT is focusing on microelectronics technologies. Its projects involve transnational cooperative ventures that include firms and government or academic research labs.

EFTA countries have been granted limited involvement in a number of the EC technological programs. Whether non-European firms will be eligible for ESPRIT or RACE grants is not altogether clear, but the minimum eligibility criteria requires having an EC subsidiary or subcontracting to an EC consortium member.

Outlook

The year 1990 was difficult for the EC information technologies sector, but analysts believe that the market may pick up in 1991. In 1990, dramatic changes in costs and technology drove marketing costs skyward, while

demand for information technology products in Europe and the U.S. declined as a result of recessions in the U.K. and the U.S., and because large customers were trying to cut back on the amount they spent on information technology.

The sectors most likely to do well are personal computers, particularly laptops, and those technologies that can improve the productivity of existing systems. The computer industry is looking to a combination of new software, new markets and lower prices to regain customers.

Many information technology suppliers are seeking new and more profitable ventures. There is a good deal of potential in ISDN and high-definition television. As the decade progresses, more companies seem likely to turn to facilities managers as a way of cutting data processing costs. Such companies accept a fee for managing all of a company's data processing or communications activities.

Opportunities for Canadian firms in the EC are more likely to take the form of establishing a presence instead of arms-length trade. For larger firms this may mean acquisitions or greenfield investments. For example, Northern Telecom has established a number of operations in Europe, including the U.K., Ireland, Germany, Holland, France and Switzerland. DMR has acquired firms in Belgium and Holland, while Memotec has bought one in Belgium.

Small- and medium-sized Canadian firms will also have to develop multinational capabilities if they want to address an EC-wide market. A few, such as GEAC, have establishments in Europe, but, for many, strategic alliances will supply a more economical route.

VII. Conclusion

Conclusion

Canadian companies have to survive in an increasingly global economy and to do so, they will need capital, technology, and marketing know-how. Improving competitiveness is not enough. Companies also need customers: Canada's companies must find significant market opportunities abroad.

This book has shown that the emerging European market represents just the sort of business opportunity that Canadian companies need to capitalize on if they are to be successful players in the global economy. The book also argues that various types of strategic alliance are the ideal business tool to make it happen. They can reduce the costs, uncertainties, and risks associated with the conduct of business in a highly competitive market such as the EC.

As this book has shown, European partnerships can complement the strengths of Canadian companies with significant advantages:

- a partnership in Europe can give a Canadian company access to the European market of more than 340 million people without the Canadian side having to acquire a plant, invest in new production facilities, or establish representative offices;
- a European partner can also contribute a deep understanding of the European marketplace, its dynamics, and the preferences of its consumers;
- a strategic alliance in Europe can be a valuable source of proprietary technology, technical expertise, high-level managerial skills, or all-round business sophistication needed to penetrate and survive in the European marketplace;
- alliances can also be a source of the capital needed to commercialize an interesting technology or an appealing product idea;
- by letting a partner assume certain responsibilities, strategic alliances enable Canadian companies to position themselves in the European market without sacrificing their ability to focus on what they do best;
- finally, strategic alliances are an ideal way of diversifying into several ventures so that companies need not pin their hopes on the success of one or two projects.

By lowering costs, reducing uncertainty, and controlling risks, strategic partnerships improve any project's chances for success. Canadian companies can use them to link the achievements of others to their own capabilities and contributions. The result can be a synergy that supports not only success in Europe but competitiveness around the globe.

That is why alliances have become a familiar weapon in the corporate arsenal.

The key is to find the right sort of partner, not just one with whom a company feels comfortable, but one that can complement a firm's strengths and contribute to overall competitiveness. Europe has many places in which to search for such partners. This book has offered descriptions of four especially dynamic regions where Canadian companies can look for strategic alliances and where institutional support exists to help them do so.

Canadian companies should look seriously at a European presence if they hope to succeed internationally. Not only is the EC already the largest market in the world, it is also rich and growing. Its diversity makes it a microcosm of the international marketplace and the sophistication of both its producers and its consumers requires state-of-the-art business solutions. A company that successfully competes in Europe can probably succeed anywhere in the world. That means that an alliance with a successful European partner will not only help a Canadian company prosper in Europe. It can be a significant stepping stone to success world-wide.

Annex A: Are You Ready to Partner

A strategic audit

What to look for in a partner

A strategic audit

Deciding whether an alliance will satisfy your strategic objectives demands a thorough analysis of your present situation. Here is an analysis of strengths, weaknesses, opportunities, and threats (SWOT) that can help you determine the present position of your firm in each of its business segments.

Market Analysis

1.a. What is your present market position? Consider product life cycle, market share, price of product, quality, marketing strategy, market research skills, patents, licences, and agreements.

b. What are the current industry trends? How does your firm fit in?

2. What are your direct and indirect competitors doing? (price, quality, originality)

3. a. What are your market opportunities?

b. What would you like to do?

4. How effective are your dealer/distribution and service networks and do they need improvement?

5. a. How flexible is your current corporate structure?

b. What changes could be made? (production, personnel, training, equipment)

6. What are your promotional and marketing strategies and how effective have they been?

Innovation

1. What is your assessment of your current R&D situation?

a. Any recent successes?

b. Were these commercial successes?

c. What are your in-house R&D capabilities?

d. What are your competitors doing in product research, process research, and technology imitation?

2. Is your staff creative, qualified, reliable, and productive?

3. What patents do you have and what do they cover?

a. How dated is the technology?

4. What licences has your company bought and how are they used?

a. How much do they cost?

b. How dated is the technology?

5. Could you access outside sources of research or technical human resources? Consider suppliers, customers, and contractors.

6. What is the relationship between your R&D activities and your marketing strategy?

Productivity

1. Is your firm taking advantage of economies of scale?

2. Are you using appropriate technology?

a. Is it your technology?

b. What are the cost advantages?

3. How flexible or integrated is your production process?

a. At what capacity are you operating?

b. Is there room for expansion?

c. How effective are your quality control processes?

4. Consider issues related to labour force, plant location, transportation costs, as well as access to and cost of raw materials.

5. What are your competitors doing?

Financial Resources

1. Are your present financial resources sufficient to meet your present objectives? (R&D, marketing, sales, promotion, training)

a. Do you have cash flow problems?

b. What is your present equity position?

2. What is your borrowing capacity in both the short- and the long-term?

3. How are your finances being managed?

4. How important are issues like fluctuating exchange rates, transfer pricing, dividends, the repatriation of funds?

5. Are there any changes that you would like to make to your management and financial accounting systems?

Profitability

1. What is your company's 5-year trend in profitability?

a. How does this compare to the industry average?

b. How

does it compare to your competitors?

2. What are the trends in prices and margins for your product?

d. Flexibility and adaptability

2. What are the leadership and motivational qualities of your CEO?

3. Are there managers experienced in managing acquisitions, mergers, joint ventures, or any form of strategic alliance?

4. Do your managers have international business experience?

5. What kind of attention do you pay to training and development for your staff?

6. Consider employee morale and commitment to the company? What incentives do they have?

7. How skilled is your work force?

8. What is the age of the work force in relation to that of management?

Human Resources

1. Rate current management on the following issues:

a. Leadership

b. Ability to motivate others

c. Ability to coordinate departments, divisions or functions

What to look for in a partner

Selecting an appropriate partner takes time and resources. Identify clearly and precisely the specific venture to be pursued and what is expected from your partner - and make this known to your prospects. Frank and open communication with your partner is important.

Don't be misled by superficial similarities between you and your potential partner. Take a look at the prospect's balance sheet, financial stability, plans for growth and profit orientation. And if the partner is an unknown, start small and build from there.

Capability

1. What are the competitive strengths and weaknesses of your partner? It may be wise to develop a pre-incorporation agreement identifying the various strengths each of you can bring to the table and what each firm will contribute to the alliance.

2. Do your technical skills and resources complement each other?

3. Does your partner have sufficient financial resources? This issue is especially important if the alliance depends on the partner's financial contribution.

4. Does your partner have management resources of sufficient quality and depth to coordinate with you and to administer its share of the alliance?

5. Is there sufficient symmetry between your two firms to form the basis for complementarity? Large firms have a tendency to impose their management culture and corporate demands on smaller companies.

6. Do you have sufficient bargaining leverage to reduce the risk of your partner demanding far more than it gives to the venture?

Objectives

1. What are your partner's real motivations?

2. a. How critical is the proposed alliance to your partner's long-term business strategy?

- b. Does your partner need the venture in order to meet its own tactical and strategic objectives?

- c. What resources is your partner willing to commit to the alliance?

- d. Is there a champion inside the other firm who will strive to ensure the success of the alliance?

3. Are the time horizons you want acceptable to the other side?

4. Are the expected returns clearly understood?

5. Is your potential partner in direct competition with you? If so, in which markets?

Chemistry

1. Are your business cultures and attitudes compatible?

2. What is your partner's orientation towards risk and profit?

3. Are your operating policies compatible?

4. Are your management teams compatible?

5. What is your partner's track record on cooperation?

3. What measures can you take to guard against unfair appropriation of your know-how?

4. What do people who have already partnered in the country have to say about their experience there?

5. What are the various legal risks regarding competition in the market you are entering?

Protection

1. Are there measures in place to protect your contribution (e.g., proprietary technology)?

2. Do you know the intellectual property laws in force in the prospect's country?

Annex B: Canadian Government Programs Related to Strategic Partnering

*External Affairs and
International Trade Canada*

*Industry, Science and
Technology Canada*

Investment Canada

Canadian government programs related to strategic partnering

EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA

External Affairs and International Trade Canada (EAITC) is the leading federal department responsible for Canada's international trade and investment, and export development.

About one-third of EAITC's personnel are employed in trade and economic policy work, and in promoting Canadian exports, investment and tourism. In broad terms, EAITC's trade responsibilities involve:

- enhancing Canada's access to foreign markets (through bilateral and multilateral trade negotiations);
- providing programs and services to Canadian companies to:
 - a) support their export marketing activities;
 - b) help them obtain foreign investment and technology to improve their international competitiveness.

Info Export Hotline

Info Export is the department's export trade information and national toll-free assistance hotline.

For most beginning and many veteran exporters, Info Export is the best starting point for getting an up-to-date overview.

Staff can advise you on the full range of EAITC trade publications, programs and services. They can also tell you what is available through other federal departments and agencies. In short, Info Export gives you immediate answers to your export information questions or puts you quickly in touch with a trade expert who can.

Contact: Info Export (BTCE)

External Affairs and International Trade Canada
125 Sussex Drive
Ottawa, Ontario
K1A 0G2
Toll-Free 1-800-267-8376
Ottawa Callers: 993-6435

Overview of Services

The department delivers its trade program and services through 138 offices in Canada and around the world.

- If you are new to exporting, your first step is to contact the International Trade Centre nearest you. There are twelve centres in cities across Canada.
- If you need trade and investment information for a specific country or region, contact the responsible geographic trade division in Ottawa.
- If you are interested in market prospects for a specific product or service sector, contact our sector trade divisions in Ottawa.
- When you have identified specific markets of interest to your company, you may wish to obtain further assistance from our Trade Commissioners abroad.

Investment Development Program (IDP)

The Investment Development Program encourages targeted foreign corporations and other potential investors to bring new capital and technology into Canada. The program also promotes joint ventures and strategic partnerships between Canadian and foreign firms.

IDP activities are carried out by investment officers and counsellors at 43 EAITC trade offices around the world. The program initially focused on Canada's traditional foreign investment sources: the U.S., the U.K., France, Germany, Japan and Holland. It has now been expanded to cover additional European and Pacific Rim countries and the Middle East. Promotional campaigns, direct mail, seminars and other activities focus on sectors where Canada has demonstrated expertise and opportunities. A major selling point is the improved access Canada offers to the U.S. market under the Canada-U.S. Free Trade Agreement.

The department works closely with Investment Canada, Industry, Science and Technology Canada and provincial and municipal governments to identify investment priorities in Canada.

Going Global Investment Program

The Going Global Investment Program is a new initiative within the IDP. Its mandate is to assist Canadian industry to capitalize on new investment opportunities arising from the integration of Western European economies and the dynamic growth of Asia Pacific. It is designed specifically to support focused and proactive investment promotion initiatives aimed at attracting technology-bearing investments in Canada's priority sectors from these regions to Canada. Under the Going Global Investment Program, priority will be given to projects which address the investment needs of Canada's

industries, target particular foreign markets and foreign firms with respect to meeting these needs and involve a means of bringing Canadian companies with needs together with those interested in filling those needs.

Contact: International Trade Centre nearest you or
Export and Investment Programs Division (TPE)
External Affairs and International Trade Canada
125 Sussex Drive
Ottawa, Ontario
K1A 0G2
Telephone: (613) 995-7576
Facsimile: (613) 995-5773

Technology Inflow Program (TIP)

The Technology Inflow Program helps Canadian business acquire foreign technology to develop new Canadian products, processes or services. The program is open to all companies but is intended especially for small and medium-sized firms. Specifically, EAITC helps Canadian companies identify sources for obtaining the technology they need to improve productivity. Also, the Program helps companies to take advantage of opportunities to collaborate with foreign companies.

Under TIP, EAITC also encourages and provides assistance regarding:

- exploratory or longer-term working visits abroad by individual Canadian companies;
- industry-oriented group technology awareness missions abroad organized by Canadian professional or trade associations;
- visits by foreign technical experts to companies in Canada.

In Canada, the Industrial Research Assistance Program (IRAP) is the primary agency which helps companies identify their needs and gain access to TIP funding. For more information: See IRAP listing in your telephone yellow pages under "Technology Assistance".

There are currently 39 EAITC trade offices around the world which provide services under TIP: 16 in the U.S., 15 in Europe and 8 in the Asia Pacific region and the Middle East.

Contact: Science and Technology Division (TDS)
External Affairs and International Trade Canada
125 Sussex Drive
Ottawa, Ontario
K1A 0G2
Telephone: (613) 996-0971
Facsimile: (613) 943-1102

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA

Industry, Science and Technology Canada (ISTC) was created to promote Canada's international competitiveness and excellence in industry, science and technology.

ISTC's main responsibilities are to:

- develop and promote industry and science policies and programs to build a climate for sustainable, long-term economic growth;
- act as a reasoned advocate within the federal government for the interests of the industrial and scientific communities;
- encourage innovation, technology adoption and research and development to improve competitiveness;
- foster and recognize excellence in industry, science and technology;
- support efforts of Canadian businesses to expand domestic and international sales;
- champion the growth of the Canadian scientific community and culture.

From its Headquarters in Ottawa or its regional Business Service Centres, ISTC offers its clients a national and international perspective; access to various trade, marketing, investment and science and technology networks; and various business-oriented services and programs designed to build competitiveness.

Business Opportunities Sourcing System (BOSS)

Business Opportunities Sourcing System contains basic information on over 25,000 Canadian companies. It maintains a computer listing of Canadian manufacturers, international trading houses, freight forwarders and service firms. It has over 6,500 domestic and international users who consult BOSS to locate Canadian suppliers, identify products and services for sourcing, obtain market intelligence and assess market opportunities.

Contact: ISTC Business Service Centre nearest you or
Service to Business Branch
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Telephone: (613) 954-5048
Facsimile: (613) 954-1894

Capital Projects

Access for Canadian companies to international capital projects is promoted through analysis of Canadian capabilities that could compete for such projects, advice on international opportunities, partnership or joint venture strategies that could strengthen the Canadian position, and coordination of international marketing programs and services for capital projects.

Contact: ISTC Business Service Centre nearest you or
Surface Transportation and Machinery Branch
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Telephone: (613) 954-3778
Facsimile: (613) 954-3403

DISTCcovery Program

The DISTCcovery Program assists the entrepreneur in locating and acquiring new business opportunities. It includes a library of Canadian and foreign technology/products directories, brochures and newsletters; and a user-friendly computer data base of business ideas, products, processes and services sourced in Canada and throughout the world.

Contact: ISTC Moncton Business Service Centre or
Service to Business Branch
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Telephone: (613) 954-4966
Facsimile: (613) 954-1894

Strategic Technology Program

This program provides financial assistance in support of research and development and technology application alliances in information technology, biotechnology and advanced industrial materials. These industry-led alliances can also involve foreign firms, universities or research institutes that wish to pool resources on pre-competitive research and development, and on pre-commercial technology application projects.

Contact: ISTC Business Service Centre nearest you or
Information Technologies Industry Branch
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Telephone: (613) 954-3470
Facsimile: (613) 954-8419
or

Biotechnology Division
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Telephone: (613) 954-3042
Facsimile: (613) 954-3079
or
Advanced Industrial Materials Directorate
Resource Processing Industries Branch
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Telephone: (613) 954-3114
Facsimile: (613) 954-3079

INVESTMENT CANADA

Investment Canada, an agency of the federal government, specializes in providing profiles of Canadian companies seeking investment partners and can provide introductions to Canadian companies considering joint ventures and strategic alliances.

Contact: Investment Canada
235 Queen Street
Ottawa, Ontario

Mailing Address:
P.O. Box 2800
Station D
Ottawa, Ontario
K1P 6A5
Telephone: (613) 995-0465
Facsimile: (613) 996-2515

Annex C: Useful Addresses

Useful addresses

Bilateral Business Associations

Canada-France Businessmen's Committee
c/o Banque Nationale du Canada
600 de la Gauchetière Ouest
Montreal, Quebec
H3B 4L2
Telephone: (514) 394-4000

Canada-United Kingdom Committee
c/o Canadian Chamber of Commerce
1080 Beaver Hall Hill
16th Floor
Montreal, Quebec
H2Z 1T2
Telephone: (514) 866-4334

Canadian-German Chamber of Industry and Commerce
1010 Sherbrooke Ouest
Montreal, Quebec
H3A 1T8
Telephone: (514) 844-3051

480 University Avenue
Suite 1410
Toronto, Ontario
M5G 1V2
Telephone: (416) 598-3355

1330 Scotia Place
10060 Jasper Avenue
Edmonton, Alberta
T5J 3R8
Telephone: (403) 420-6611

Canadian-Italian Business and Professional Association
6020 Jean Talon Est
Montreal, Quebec
H1S 3B1
Telephone: (514) 254-4929

Canadian-Italian Business and Professional
Association of Toronto
901 Lawrence Ave, West
Suite 212
Toronto, Ontario
M6A 1C3
Telephone: (416) 782-4445

Chambre de Commerce Belge et
Luxembourgeoise au Canada
465 St-Jean
Montreal, Quebec
H7Y 2S1
Telephone: (514) 845-4650

Chambre de Commerce Française au Canada
360 St François Xavier
Montreal, Quebec
H2Y 2S8
Telephone: (514) 281-1246

**Delegation of the Commission of
the European Communities**
1110-350 Sparks Street
Ottawa, Ontario
K1R 7S8
Telephone: (613) 238-6464
Facsimile: (613) 238-5191

EUREKA Secretariat
19 H Avenue des Arts, Bte 3
B 1040 Brussels
Belgium
Telephone: (011-32-2) 217-00-30
Facsimile: (011-32-2) 218-79-06
Telex: 29340 EUREKA B

External Affairs and International Trade Canada
Lester B. Pearson Building
125 Sussex Drive
Ottawa, Ontario
K1A 0G2
Telephone: (613) 996-9134
Facsimile: (613) 996-9288
Telex: 053-3745

European Community Division (RWM)
Telephone: (613) 996-2727
Facsimile: (613) 995-1277

Export and Investment Programs Division (TPE)
Telephone: (613) 995-7576
Facsimile: (613) 995-5773

Info Export (BTCE)
Toll-Free 1-800-267-8376
Ottawa Callers: 993-6435

Science and Technology Division (TDS)
Telephone: (613) 996-0971
Facsimile: (613) 943-1102

Western Europe Trade, Investment & Technology
Division (RWT)
Telephone: (613) 995-6438
Facsimile: (613) 995-6319

Canadian Trade Offices in Western Europe: External Affairs and International Trade Canada

European Communities
Mission of Canada to the European Communities
2, Avenue de Tervuren
1040 Brussels
Belgium
Telephone: (011-32-2) 735-91-25
Facsimile: (011-32-2) 735-3383
Cable: CANMISEUR
Telex: (Destination code 46) 21613 (DOMCAN B)

This Mission is involved in market access issues and the development of industrial and economic cooperation between Canada and the EC.

European Community Member States
Belgium

Canadian Embassy
2, Avenue de Tervuren
1040 Brussels, Belgium
Telephone: (011-32-2) 735-60-40
Facsimile: (011-32-2) 735-3383
Cable: CANADIAN BRUSSELS
Telex: (Destination code 46) 21613 (DOMCAN B)

Territory: Belgium, Luxembourg

United Kingdom

Canadian High Commission
Macdonald House
One Grosvenor Square
London W1X 0AB
England
Telephone: (011-44-71) 629-9492
Facsimile: (011-44-71) 491-3968
Cable: DOMINION LONDON
Telex: (Destination code 51) 261592 (CDALDN G)

Territory: England, Wales, Channel Islands, Gibraltar, Scotland, Northern Ireland

Denmark

Canadian Embassy
Kr. Bernikowsgade 1
DK-1105 Copenhagen K
Kingdom of Denmark
Telephone: (011-45-53) 12-22-99
Facsimile: (011-45-33) 14-05-85
Cable: DOMCAN COPENHAGEN
Telex: (Destination code 55) 27036 (DMCNC DK)

France

Canadian Embassy
35, avenue Montaigne
75008 Paris
France
Telephone: (011-33-1) 47.23.01.01
Facsimile: (011-33-1) 47.20.19.44
Cable: CANADIAN PARIS
Telex: (Destination code 42) 280806 (CANADA 280806F)

Canadian Consulate
Bonnell Part-Dieu Building
74, rue de Bonnel
3rd Floor
69428 Lyon Cedex 03
France
Telephone: (011-33-1) 72.61.15.25
Telex: (Destination code 42) 380003 (CANADA)

Germany

Canadian Embassy
Friedrich-Wilhelm-Straße 18
D-5300 Bonn 1,
Germany
Telephone: (011-49-228) 23-10-61
Facsimile: (011-49-228) 23-08-57
Cable: CANADIAN BONN
Telex: (Destination code 41) 886421 (DOMCA D)

Missions in Germany are organized on an industry sector basis rather than a geographic basis. Therefore, all trade enquiries should be directed to the post identified as having specific responsibility for the product in question.

Sector Responsibilities: Defense Products, Security Equipment, Books, Art, Music, Fairs, Government Regulatory and Policy Questions

Canadian Consulate General
Europa Centre
D-1000 Berlin 30
Germany
Telephone: (011-49-30) 261-11-61
Facsimile: (011-49-30) 262-9206
Telex: (Destination code 41) 185487 (CANAD D)

Canadian Consulate General
Immermann Hof
Immermannstraße 65D
4000 Düsseldorf 1
Germany
Telephone: (011-49-211) 35-34-71
Facsimile: (011-49-211) 35-91-65
Cable: CANADIAN DÜSSELDORF
Telex: (Destination code 41) 8587144 (DMCN D)

Sector Responsibilities: Agriculture, Food, Fish Products, Chemicals, Fuels, Machinery and Equipment, Marine Industries, Textiles, Consumer Goods, Third Country Capital Projects

Canadian Consulate General
Tal 29
D-8000 Munich 2
Germany
Telephone: (011-49-89) 22-26-61
Facsimile: (011-49-89) 228-5987
Telex: (Destination code 0411) 5214139 (CAND D)

Sector Responsibilities: Electrical and Electronic Products, Instrumentation, Medical Equipment, Surface and Air Transportation, Agricultural Machinery, Visual and Sound Recordings, Optical Equipment, Telecommunications

Greece

Canadian Embassy
4 Ioannou Ghennadiou Street
115 21 Athens
Greece
Telephone: (011-30-1) 723-9511
Facsimile: (011-30-1) 724-7123
Cable: CANADIAN ATHENS
Telex: (Destination code 601) 215584 (215584 DOM GR)

Ireland

Canadian Embassy
Canada House
65 St. Stephen's Green
Dublin 2
Ireland
Telephone: (011-353-1) 781988
Facsimile: (011-353-1) 781285
Cable: DOMCAN DUBLIN
Telex: (Destination code 500) 93803 (93803 DMCN EI)

Italy

Canadian Embassy
Via G.B. de Rossi 27
00161 Rome
Italy
Telephone: (011-39-6) 841-5341
Facsimile: (011-39-6) 884-8752
Cable: CANADIAN ROME
Telex: (Destination code 43) 610056 (DOMCAN I)

Territory: Provinces of Toscana, Marche, Umbria, Lazio, Abruzzi-Molise, Puglia, Campania, Basilicata, Calabria, Sicilia, Sardegna

Canadian Consulate General
Via Vittor Pisani 19
20124 Milan
Italy
Telephone: (011-39-2) 6697451
Facsimile: (011-39-2) 6704450
Cable: CANTRACOM MILAN
Telex: (Destination code 43) 310368 (310368 CANCON I)

Territory: Provinces of Liguria, Piemonte, Val d'Aosta, Lombardia, Trentino-Alto Adige, Friuli-Venezia Giulia, Emilia-Romagna e Veneto

The Netherlands

Canadian Embassy
Sophialaan 7
2514 JP The Hague
Kingdom of the Netherlands
(Mailing Address: Commercial Division
P.O. Box 30820, 2500 GV, The Hague

Netherlands)
Telephone: (011-31-70) 361-4111
Facsimile: (011-31-70) 356-1111
Cable: DOMCAN THE HAGUE
Telex: (Destination code 44) 31270 (31270 DMCN NL)

Portugal

Canadian Embassy
Av. Da Liberdade 144/56-4,
1200 Lisbon
Portugal
Telephone: (011-351-1) 347-4892
Facsimile: (011-351-1) 347-6466
Cable: CANADIAN LISBON
Telex: (Destination code 404) 12377 (DOMCAN P)

Territory: Portugal, Azores, Madeira

Spain

Canadian Embassy
Apartado 117
35, Nunez de Balboa
28001 Madrid
Kingdom of Spain
(mailing address: Apartado 587
28080 Madrid
Kingdom of Spain)
Telephone: (011-34-1) 431-4300
Facsimile: (011-34-1) 431-2367
Cable: CANADIAN MADRID
Telex: (Destination code 52) 27347 (27347 DOMCA E)

Territory: Includes Balearic Islands, Canary Islands and provinces outside the peninsula

European Free Trade Association (EFTA) Member States

Austria
Canadian Embassy
Dr. Karl Lueger Ring 10
A-1010 Vienna
Republic of Austria
Telephone: (011-43-222) 533-36-91
Facsimile: (011-43-222) 535-44-73
Cable: DOMCAN VIENNA
Telex: (Destination code 47) 11-5320 (DMCN A)

Finland

Canadian Embassy
Pohjois Esplanadi 25 B
00100 Helsinki
Republic of Finland
(Mailing Address: P.O. Box 779, 00101 Helsinki,
Republic of Finland)
Telephone: (011-358-0) 171-141
Facsimile: (011-358-0) 601-060
Cable: DOMCAN HELSINKI
Telex: (Destination code 57) 121363
(121363 DMCNH SF)

Norway

Canadian Embassy
Oscars Gate 20, Oslo 3
Kingdom of Norway
(Mailing Address: 0244 Oslo 2
Kingdom of Norway)
Telephone: (011-47-2) 46-69-55
Facsimile: (011-47-2) 69-34-67
Cable: DOMCAN
Telex: (Destination code 56) 71880 (71880 DOMCAN N)

Territory: Norway, Iceland

Sweden

Canadian Embassy
Tegelbacken 4, 7th Floor
Stockholm
Kingdom of Sweden
(Mailing Address: P.O. Box 16129, S-103 23
Stockholm, Kingdom of Sweden)
Telephone: (011-46-8) 23 79 20
Facsimile: (011-46-8) 24 24 91
Cable: CANADIAN STOCKHOLM
Telex: (Destination code 54)10687 (10687 DOMCAN S)

Switzerland

Canadian Embassy
Kirchenfeldstrasse 88
CH-3005 Berne
Switzerland
(Mailing Address: P.O. Box, CH-3000 Berne 6,
Switzerland)
Telephone: (011-41-31) 44-63-81
Facsimile: (011-41-31) 44-73-15
Cable: CANADIAN BERNE
Telex: (Destination code 45) 911308 (911308 DMCN
CH)

Territory: Switzerland, Liechtenstein

Industry, Science and Technology Canada

235 Queen Street
Ottawa, Ontario
K1A 0H5
Enquiries relating to ISTC services, information products,
programs and expertise: (613) 952-4782
General Enquiries: (613) 954-2788

International Trade Centres/Business Services Centres

Calgary
11th Floor
510-5th Street, S.W.
Calgary, Alberta
T2P 3S2
Telephone: ITC (403) 292-6660 BSC (403) 292-4575
Facsimile: (403) 292-4578 (403) 292-4578

Charlottetown

Confederation Court Mall
134 Kent Street, Suite 400

P.O. Box 115
Charlottetown, Prince Edward Island
C1A 7M8
Telephone: ITC (902) 566-7443
BSC (902) 566-7400
Facsimile: (902) 566-7450 (902) 566-7450

Edmonton

Canada Place
9700 Jasper Ave.
Edmonton, Alberta
T6J 4C3
Telephone: ITC (403) 495-2944 BSC (403) 495-4782
Facsimile: (403) 495-4507 (403) 495-4507

Halifax

Central Guarantee Trust Building
1801 Hollis Street
P.O. Box 940, Station "M"
Halifax, Nova Scotia
B3J 2V9
Telephone: ITC (902) 426-6125
BSC (902) 426-7259
Facsimile: (902) 426-2624 (902) 426-2624

Moncton

Assumption Place
770 Main Street
P.O. Box 1210
E1C 8P9
Telephone: ITC (506) 851-6440 BSC (506) 857-4782
Facsimile: (506) 851-6429 (506) 851-6429

Montreal

Tour de la Bourse
800, Place Victoria - 38 étage
C.P. 247
Montreal, Quebec
H4Z 1E8
Telephone: ITC (514) 283-6796 BSC (514) 283-8185
Facsimile: (514) 238-3302 (514) 283-3302

Regina (ITC)

4th Floor
1955 Smith Street
Regina, Saskatchewan
S4P 2N8
Telephone: (306) 780-6108
Facsimile: (306) 780-6679

St. John's

Atlantic Place
215 Water Street
Suite 540
B.O Box 8950
St. John's Newfoundland
A1B 3R9
Telephone: ITC (709) 772-5511
BSC (709) 772-4782
Facsimile: (709) 772-2373 (709) 772-5093

Saskatoon

6th Floor (ITC)
7th Floor (BSC)
105-21 Street, East
Saskatoon, Saskatchewan
S7K 0B3
Telephone: ITC (306) 975-4343
BSC (306) 975-4386
Facsimile: (306) 975-5334 (306) 975-5334

Toronto

4th Floor
Dominion Public Building
1 Front Street, West
Toronto, Ontario
M5J 1A4
Telephone: ITC (416) 973-5052
BSC (416) 973-4782
Facsimile: (416) 973-8161 (416) 973-8714

Vancouver

Scotia Tower
900-650 West Georgia Street
P.O. Box 11610
Vancouver, British Columbia
V6B 5H8
Telephone: ITC (604) 666-1438
BSC (604) 666-0266
Facsimile: (604) 666-8330 (604) 666-0277

Winnipeg

Suite 608 (ITC)
8th Floor (BSC)
330 Portage Ave.
Winnipeg, Manitoba
R3C 2V2
Telephone: ITC (204) 983-2387
BSC (204) 983-4782
Facsimile: (204) 983-2187 (204) 983-2187

Whitehorse (BSC)

Suite 301
108 Lambert Street
Whitehorse, Yukon Territory
Y1A 1Z2
Telephone: (403) 668-4655
Facsimile: (403) 668-5003

Yellowknife (BSC)

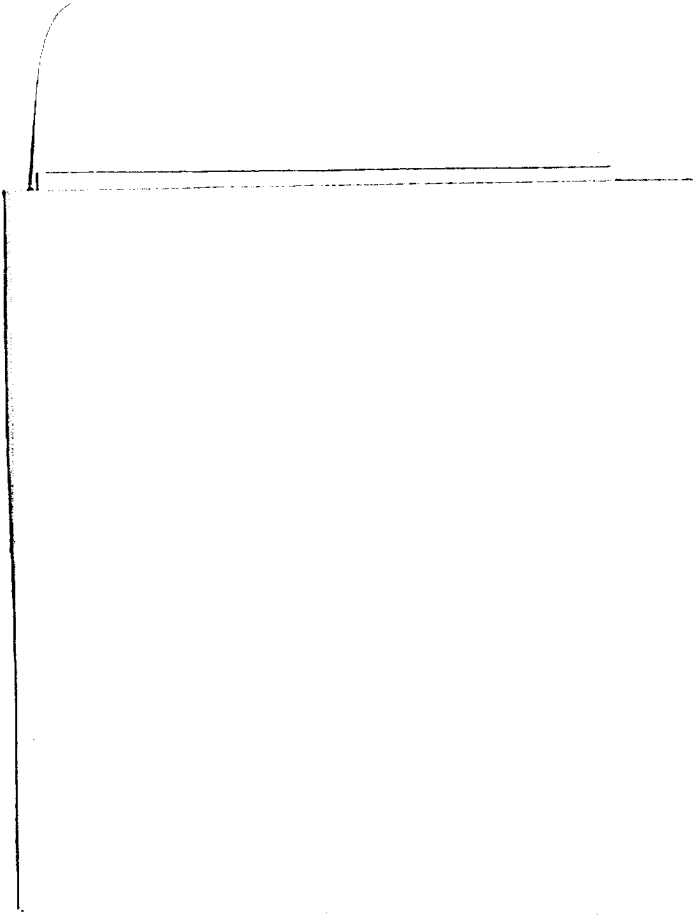
10th Floor
Precambrian Building
P.O. Bag 6100
Yellowknife, Northwest Territories
X1A 2R3
Telephone: (403) 920-8568
Facsimile: (403) 873-6228



LIBRARY E A/BIBLIOTHEQUE A E



3 5036 20074139 8





External Affairs and
International Trade Canada

Affaires extérieures et
Commerce extérieur Canada