

**OPPORTUNITIES FOR THE
EXPORT OF CANADIAN
HOUSING EXPERTISE IN
TRADITIONAL MARKETS**

FINAL REPORT

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for
Canada Mortgage and Housing Corporation

June 15, 1993

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TABLE OF CONTENTS

Chapter 1	INTRODUCTION	1
1.1	Background	1
1.2	Purpose and structure of the report	3
1.3	Scope and definitions	4
1.4	Approach	7
Chapter 2	THE CANADIAN HOUSING INDUSTRY	8
2.1	House building activity and market in Canada	8
2.2	Competitive advantages of Canadian housing in international markets	12
2.3	Structure of the industry	15
2.3.1	Home builders	15
2.3.2	The prefabricated housing industry	18
2.3.3	The renovation industry	24
2.3.4	The Residential land developers	25
2.3.5	Architects	26
2.3.6	Key industry players in the housing export business	27
Chapter 3	EXPORT OPPORTUNITIES IN NORTH AMERICA, WESTERN EUROPE AND PACIFIC RIM DEVELOPED MARKETS	
3.0	Introduction	29
3.1	The U.S. Housing market and key export leads	31
3.2	The Mexico Housing market and key export leads	45
3.3	The Japan Housing market and key export leads	53
3.4	The German Housing market and key export leads	60
3.5	The Spanish Housing market and key export leads	68
3.6	The French Housing market and export leads	76

TABLE OF CONTENTS (CONT'D)

Chapter 4	ASSISTANCE TO THE HOUSING INDUSTRY IN TRADITIONAL INTERNATIONAL MARKETS	
4.1	Introduction	81
4.2	The agencies and the assistance	81
4.2.1	EAITC	83
4.2.2	ISTC	94
4.2.3	EDC	97
4.2.4	CMHC	100
Chapter 5	KEY FINDINGS AND CONSIDERATIONS	102

APPENDICES

Appendix 1: References

Appendix 2: Contacts for federal assistance

INTRODUCTION

1.1 BACKGROUND

CHANGING BUSINESS ENVIRONMENT FOR THE HOUSING INDUSTRY IN CANADA AND ABROAD

The business environment that has supported the development of the Canadian housing industry is currently undergoing dramatic changes. In the past, industry resources have served expanding domestic markets supported by a growing population. These growth trends are not forecast to persist in the long term. Although the industry has historically had to adapt to recurring business cycles, the globalization of financial markets and the removal of trade barriers among European and North American countries will compound to further challenge the industry. Such shifts the industry's planning and working environment require changes in the industry's strategic positioning both in domestic and external markets. Productivity improvements, the development of innovative and competitive technologies and the identification of and access to export opportunities in foreign markets can combine as key elements of the Canadian housing industry's overall response to such changes.

Canada Mortgage and Housing Corporation (CMHC), whose role among others, is to assist the housing industry to adapt to changing business conditions, is identifying potential avenues worth exploring with an integrated and comprehensive approach. Among these, exports of Canadian housing technologies and services in traditional markets of North America, Western Europe and the developed regions of the Pacific Rim have been identified as one of the potential solutions that could strengthen the housing industry and the Canadian housing delivery system as a whole throughout its uncertain future.

Competition is fierce in international markets. Strategies to enter these markets build on competitive strengths, early identification of market opportunities and niches and productive use of government assistance tailored to industry needs.

THE HOUSING INDUSTRY NEEDS INFORMATION

Despite its large size and great importance to the Canadian economy, the housing industry in Canada is highly fragmented and composed mostly of highly leveraged and small firms solidly entrenched at the local level and dispersed across the country. Few have been involved extensively in foreign markets and few have developed the necessary market intelligence and resources to assess foreign market commercial opportunities as part of their development plan. Export experiences and skills are also spread throughout the industry and all over Canada. No one in the industry has developed a clear understanding of the potential success areas and success factors.

PAST EXPERIENCE IN TRADITIONAL FOREIGN MARKETS: MOSTLY PRODUCT ORIENTED

In the past the Canadian housing industry has developed with the assistance of programs and networks, such as the Council of Forest Industries supported by Industry, Science and Technology Canada (ISTC) and External Affairs and International Trade Canada (EAITC), a definite but rather focused experience with international trade. The latter has been clustered mainly around export initiatives of building materials and products (mainly dimension lumber) and exports of wood frame manufactured housing. Some export expertise is currently developing for more value added products such as windows, doors, panels, walls and mechanical systems.

With the exception of the attempts to commercialize the R-2000 concept and houses in United States and Europe and the successful licensing agreement with Japan under the Energy, Mines and Resources (EMR) initiative, few export initiatives of services and technologies have been successfully implemented in the traditional markets of North America, Western Europe and Pacific Rim.

PROBLEMS

The role, participation and results achieved by the above mentioned government agencies and the effort to date of Canadian industries and companies are understood by only a few individuals. There is no organized repository of experience in either government or industry. Similar information gained by provincial governments has not been shared with other governments and out-of province industries.

Government trade statistics do not separate out timber frame houses nor do they suggest the end uses (i.e. residential versus commercial or industrial construction) of construction services, materials, products and equipment. Some industry associations and companies active in the field have collated information, but these are private data.

1.2 PURPOSE AND STRUCTURE OF THE REPORT

This situation, together with the need for the housing industry to position international trade in its strategic thinking, have prompted this report. It attempts to:

- ♦ assess the impact of changes in the global environment for trade on the competitiveness of the Canadian residential industry
- ♦ identify Canadian technologies and services which have or could have export potential in traditional markets
- ♦ identify opportunities to market these technologies and services
- ♦ suggest strategies for members of the private sector to make use of the information in the report and to access available assistance.

The results of this mandate, undertaken by TREMA GESTION CONSEIL INC with the financial sponsorship of CMHC are contained in the next four (4) chapters. The CMHC's Research Division has been directing the project and has been assisted by an advisory committee composed of representatives of Industry, Science and Technology Canada (ISTC), External Affairs and International Trade Canada (EAITC), the Institute for Research in Construction (IRC) at the National Research Council(NRC), Energy Mines and Resources Canada (EMR) and the Canadian Home Builders Association (CHBA). Their guidance and contribution as key sources of departmental information have contributed greatly in delineating the framework, the scope and the comprehensiveness of this study.

This report is intended to help the Canadian housing industry chart its own course as it travels the road which lies ahead. By supplementing this introductory foreign market intelligence and overview of federal assistance provided in this report, with their own experience and knowledge of local and foreign market trends and prospects, the various segments of the housing industry can use this report to guide their business planning.

Chapter 2 presents a profile of the Canadian residential construction industry: its role and capabilities to penetrate traditional foreign markets. Technologies, services and whole system packages that could be competitively exported in developed countries are discussed as well. The nature and value of activity, strengths and weaknesses of key industry segments are highlighted together with current structural issues.

Chapter 3 provides an environmental scan of trends and an overview of the foreign market opportunities in selected countries in the three global markets reviewed. The array of opportunities identified in the various country analyses stems from a first examination of potential global housing needs. If Canadian technologies and services are properly tailored and modeled to local preferences, traditions and industry delivery patterns, these opportunities could eventually be transformed into effective demand.

For each country, a brief summary of key points and findings is presented. Then follows introductory and basic information on the country's economy, housing background (housing starts, needs and financing), and the local industry (structure and general organization). The key elements affecting the local construction environment such as government role, licensing, codes, costs, technologies and design are then summarized. Finally, opportunities and potential barriers are identified. In this chapter, the market information is organized to highlight recent trends, factors that may be conducive to specific and enhanced residential exports and finally strategic considerations.

Chapter 4 examines and summarizes the support available from federal agencies in Canada to assist the Canadian housing industry in exporting products, technologies and services to traditional foreign markets.

As a concluding chapter, chapter 5 summarizes key findings and strategic considerations to be taken into account by members of the private sector wishing to develop international trade and access available assistance in Canada.

1.3 SCOPE AND DEFINITIONS

The housing industry defined

Canada has a unique system for delivering housing: a strong private sector role to finance, produce and sell land and housing and a supportive public sector role primarily through Canada Mortgage and Housing Corporation (CMHC) to ensure quality and to address instability in the housing environment. This system encompasses a broad range of services, as well as the development and manufacture of new technologies and products, for low rise wood frame construction and renovation (including multiple housing) and high rise residential construction and renovation.

The private part of the Canadian housing system is a complex network of firms ranging from resource and development companies and manufacturers to trade contractors, specialty contractors and related professionals.

Focus on technologies and services

The focus of this mandate has been oriented by CMHC and its advisory committee toward the opportunities abroad for **Canadian housing-related technologies and services that are commercially available in Canada and involved in low rise and high rise residential construction and renovation in Canada**. While Canadian housing products are not the focus of this study, since there has been considerable experience with housing products in international markets, product experience has been noted where appropriate.

As suggested by CMHC and its advisory committee, the primary audiences in Canada for this study are:

- ♦ the mainstream segment of service and technology providers in the housing industry: i.e the community of home builders (both on-site and off-site construction and renovation)

Home builders are the focal point and play an integrating function in this network both for construction and renovation of dwellings: they bring together the necessary products, components and technologies, labour and information, navigate the web of regulatory requirements, organize the various inputs into a smooth production schedule and package them into an attractive, saleable product for the new home buyer or the existing owner who wishes to renovate his or her home.

- ♦ the upstream segment of service and technology providers in the housing industry: i.e. the residential land developers and architects.

Several services are located upstream in the complex flow of activities included in the housing generation process. These are community planning, financing services, the provision of residential land development, consulting engineering services for site servicing, consulting services for standards harmonization and architecture. Among these, two groups i.e. residential land developers and architects have received most of the attention as they have been identified early in the investigation as key entry points or key potential housing **projects initiators** abroad.

The traditional foreign markets defined

As agreed upon with CMHC and its advisory committee, TREMA GESTION CONSEIL INC has addressed the preparation of the market overview using a first segmentation of the regions to be covered that reflects potentially different market environments (and market entry strategies). Four groups of regions have been considered:

- ♦ Mature housing markets where the local supply capacity is expected to meet local demand and where the prevalent home building practices are different from those developed in Canada (e.g. masonry and concrete structures)
- ♦ Mature housing markets where the local supply capacity is expected to meet local demand and where the prevalent home building practices include wood frame housing technologies and techniques
- ♦ Countries with serious shortages of financial resources to support growing housing needs in a timely manner.
- ♦ Countries with a shortage of manpower, energy or raw materials requiring new approaches to house construction.

After a preliminary literature review and comprehensive in-person interviews with the Regional desk directors at EAITC, TREMA GESTION CONSEIL INC has focused its detailed information gathering activities on a sample of 6 countries whose characteristics encompass the four segments described above. These are:

- ♦ Germany (Former East and West parts),
- ♦ Spain,
- ♦ France,
- ♦ Japan,
- ♦ United-States
- ♦ Mexico.

In these traditional markets, the local housing industry is generally mature, well established and usually supported by a mature financial and regulatory infrastructure.

The assistance to the Canadian housing industry for the development of international trade in traditional foreign markets

Finally, the emphasis has been put on the role and support mechanisms provided by the federal government in the review of the assistance provided to the Canadian housing industry for the development of its international trade activities in the traditional markets.

1.4 APPROACH

The retention of international marketing and trade information is fragmented, but in terms of public access, the federal government departments of Industry, Science and Technology Canada (ISTC) and External Affairs and International Trade Canada (EAITC) have the most comprehensive information. They have continuously been involved in the international marketing of wood frame construction and have an history of close cooperation with the Canada Mortgage and Housing Corporation (CMHC), the National Research Council (NRC) and the department of Energy, Mines and Resources Canada (EMR).

The core of the information identified, retrieved and assembled in this document has been drawn from published statistical sources, research and industry reports, consultations and ongoing activities and research of the key organisations listed above. The screening of individual information sources was based on their immediate relevance to the project scope and purpose and their relative ability to reflect the current situation. Available resources did not allow creating new data bases nor updating and harmonizing existing ones.

This review of existing information has been supplemented by a series of in-depth interviews with key industry players in Canada and abroad. Among the most important in Canada, the Canadian Home Builders Association and other industry associations such as Canadian Institute of Public Real Estate Companies, institutes (e.g. Royal Architectural Institute of Canada, The Canadian Manufactured Housing Institute) as well as individual industry representatives with experience abroad have contributed their experience, perspective, references and their relative ability to validate existing information sources.

Resources allocated to the mandate did not include international travel. An extensive correspondence and the transfer of local industry reports known to or commissioned by the Canadian Trade Commissioners posted in the countries selected for in depth investigation helped to document the various situation analyses provided in chapter 3. Some differences were however observed in their relative proficiency on the trade potential for the services, technologies and products segments of the housing industry. This factor together with significant variations in the scope, quality and details included in the reports made available to the project by local industry organizations have had an impact on the coverage of market opportunities in the selected regions and its consistency. Key references and contacts are appended.

THE CANADIAN HOUSING INDUSTRY

This chapter describes the profile of the private segment of the Canadian housing industry as it relates to international trade in developed countries of Western Europe, North America and the Pacific Rim. This profile provides background on the prevailing situation in Canada against which foreign local situation analyses could be compared. It highlights the challenges and issues faced by the Canadian industry today and sorts out the "assets" that the Canadian industry is likely to exploit in international markets. After a review of the demand context and the industry outputs in Canada, an overview of the specific strengths that have been developed over time by the industry and that could have an international appeal are discussed. Then a description of the key characteristics of the following housing industry segments is provided:

- ♦ the homebuilders often referred to as stick-builders using the construction technique that involves the complete on-site assembly of the building
- ♦ the prefabricated housing segment which includes all forms of manufactured, industrialized and factory built structures prepared in a factory remote from the job site
- ♦ the renovators
- ♦ the residential land developers
- ♦ the architects

The chapter is concluded on the potential role that each of these segments could play in a global strategic approach to be developed by the industry in order to seize the market opportunities introduced in chapter 3.

2.1 HOUSE BUILDING ACTIVITY and MARKET IN CANADA

The housing industry and the economy

Residential construction is a very important contributor to the Canadian economy. In 1990, total spending on new housing and renovation was estimated at \$42 billion roughly 7% of Canada's Gross Domestic Product. Housing activity directly or indirectly resulted in the generation of almost 1.3 million person-years of employment in a variety of different industries across the country and over half is due to renovation work. Every construction job in new homebuilding and renovation results in more than two spin-off jobs in other industries across Canada. The table below illustrates for 1986 the estimated breakdown of housing output in Canada. Housing industry output figures exclude 10% of new single-family construction and 70% of renovation output, which are assumed to be undertaken outside the housing industry.

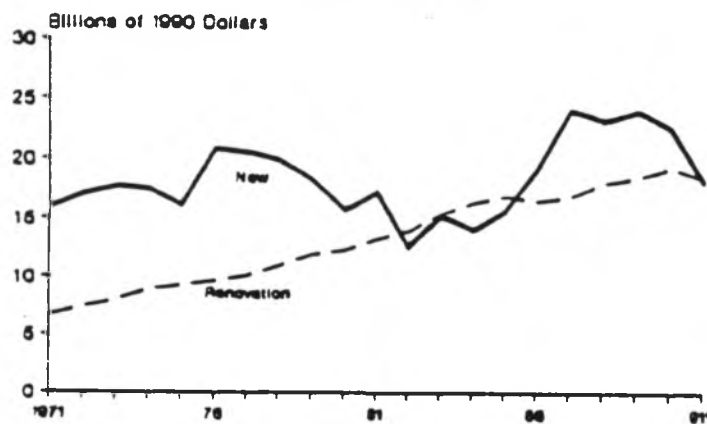
**Table 1. Estimated Housing Output.
Canada, 1986**

	Housing Output		Housing Industry Output ^a	
	\$millions	%	\$millions	%
New Construction^b				
Single-family homes ^c	11,609	37	10,448	49
Apartments	2,871	9	2,871	14
Sub-total	14,480	46	13,319	63
Land				
Single-family homes	3,370	11	3,370	16
Apartments	448	1	448	2
Sub-total	3,818	12	3,818	18
Renovation^d				
Sub-total	13,343	42	4,003	19
Total	31,641	100	21,140	100

Source: Clayton Research, Summary report, *The Changing Housing Industry in Canada, 1946-2001*

Renovation work is an increasingly important component of residential construction. In 1990 constant CDN dollars, renovation spending rose steadily from less than \$ 7 billion at the beginning of 1970s to over \$19 billion in 1990. Spending on repairs and improvements to existing housing totalled an estimated \$21 billion in 1991, slightly more than spending on new housing. In contrast to new housing, renovation spending is relatively stable; it has increased progressively over the postwar period in response to an aging and growing housing stock, changing consumer preferences and occupant needs. As a share of all residential construction spending, renovation spending has reached 45% of total spending in the past five years. A further increase is expected during the 1990s.

**ANNUAL REAL EXPENDITURES ON RENOVATION
AND NEW RESIDENTIAL CONSTRUCTION
CANADA, 1971-1991**



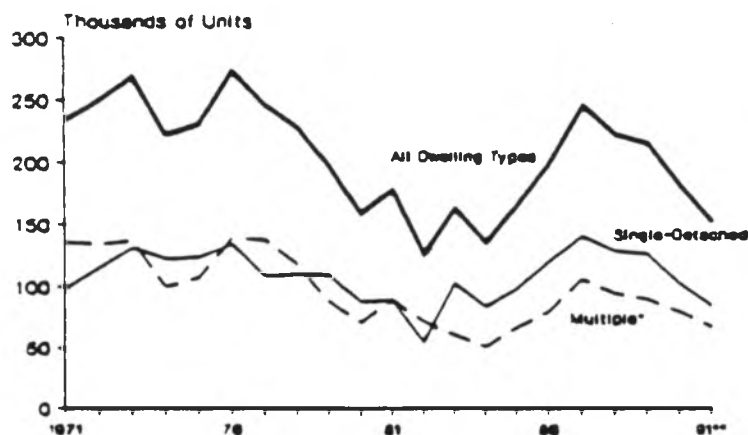
* Forecast by Clayton Research
Source: Clayton Research based on StatsCan data.

Volatile annual changes in new housing: Current activity

Housing starts are highly cyclical. They fluctuate with changes in the economy, affordability and consumer confidence. In the most recent cycle, housing activity peaked at 246,000 starts in 1987, up from a low 126,000 in 1982. The housing activity declined in 1991, as the economy recovered only slowly from recession throughout the year.

Total housing starts declined by 14% to 156 197 units, their lowest since 1984 and the fourth consecutive year-over-year decline. Single detached starts led the decline, falling 15% to 86 567 units. Multiple unit starts were down 12% to 69 630 units. While these economic conditions affected all provinces, some regional differences were reflected in housing starts. New Brunswick was the only province to post a modest increase in starts. Other provinces recorded declines of various sizes. The recovery was initially dampened by excess supply in the housing stock. The apartment vacancy rate, 4.4 % nationally at the end of 1991, was at its highest level since 1972. There were also indications of excess supply in new housing.

**HOUSING STARTS BY DWELLING TYPE
CANADA, 1971-1991**



Source: CMHC, Canadian Housing Statistics

Projections of potential housing demand in Canada

Through the remainder of the decade, demographic developments will be crucial determinants of the level, composition and location of housing demand in Canada. Population growth, a changing age structure and shifts in the propensity of the population to form households all influence growth in the total number of households and the type of households formed. Demand is strongly affected by population growth, largely a result of migration inflows. In turn, the pattern of population movement will be a function of the relative economic health of particular regions, international developments promoting or retarding emigration to Canada, the tendency among immigrants to concentrate in the most populous provinces and government immigration policies.

National projections by CMHC show potential housing demand increasing slightly to the mid-1990s, levelling off, and then declining to an annual average of 168,300 in the period 2006-2011. Up to 1996, an increasing fraction of demand is projected to come from owner households. After 2001, following a levelling off of ownership share of demand, the previous trend should reverse, with an increasing fraction of demand coming from renters non-family households. The future demand by dwelling type reflects the results for owner and renter households. Single detached houses are projected to increase as a proportion of demand until 1996, level off between 1996 and 2001 and drop thereafter. Apartments are expected to experience the reverse of the above pattern.

Changing demands for new housing in the 1990s

With the aging of the baby boom generation and increased levels of immigration, the volume and character of the demand for new housing in Canada will change in the 1990s. High levels of immigration are expected to bolster the volume of activity as demand from the baby boom generation wanes in the 1990s. However a much more segmented market will emerge during the decade due to increased numbers of people in the move-up buyer age groups. Increasing housing demand from the elderly population will also affect the character of housing activity.

The changing demands on the industry in the 1990s will be reflected both in the housing unit itself, in the site and neighbourhood:

- ♦ the design of the interior and exterior spaces, amenities and special features will have to be assessed against specific needs of emerging niches: seniors, empty-nesters, families without children, people with disabilities, singles with a range of incomes.
- ♦ developers will have to pay more attention to site design, including location of the homes on their lots and in the neighbourhood, integrated community facilities, etc.

The housing market environment in the future

The external environment, which comprises economic, demographic and lifestyle trends, as well as the role of government and the growth of computer based technology, should therefore have a number of potentially significant consequences for the housing market up to 2000:

- The total demand for new housing should decline in Canada
- A preference for homeownership should continue, but demand from traditional buyer groups will lessen: increasingly segmented markets for the housing product will dominate

- The focus on life-style housing should grow
- Growth is expected in congregate forms of new housing for the elderly
- Greater emphasis on quality, distinctiveness and value will be reflected in the new homebuyers' decision in the future
- A decline in the average size of new single-family homes associated with the trend toward lifestyle housing as well as a decline in first time buyers are likely in the 1990s
- The "intelligence" of new houses should increase
- The level of renovation activity on ownership housing will likely continue to increase
- Increases in real renovation spending on rental housing may be inhibited by rent controls and the concentration of low income households in the rental sector

2.2 COMPETITIVE ADVANTAGES OF THE CANADIAN HOUSING INDUSTRY IN INTERNATIONAL MARKETS

As in other developed countries, the Canadian housing industry has developed its particular profile, thus its potentially competitive advantages on international markets. The table below introduces these advantages through highlighting their origin and the resulting broad categories of technologies and services fully commercialized in Canada:

Source of competitive advantages	Broad categories of technologies and services that may have potential in international markets.
exploitation of its abundant local resources i.e wood	the development and commercialization of the internationally reputed wood frame construction technology applied to both on-site and off-site residential construction applications

Source of competitive advantages	Broad categories of technologies and services that may have potential in international markets.
exploitation of its specific climatic, geographic i.e cold climate and remote development and geologic conditions	the development and the commercialization of highly energy-efficient housing construction technologies, expertise and services to the housing industry (e.g. R-2000 houses and program resulting from a strong partnership between EMR and the industry through CHBA)
	the development and commercialization of construction technologies in remote regions
	the development and commercialization of construction technologies and expertise enabling the construction of large volumes of dwellings units in short time periods and at low cost (both low rise and high rise construction)
	the development and use of wood frame housing technology resistant to severe seismic conditions
	the development and commercialization of housing technologies resulting in dwelling units with life expectancy in the 25-50 year range.
exploitation of its specific demographic conditions i.e low demographic density	the development of a definite expertise in low rise housing construction technologies and services (e.g. single family housing, cottages)

Source of competitive advantages	Broad categories of technologies and services that may have potential in international markets.
exploitation of the public sector vision, the initiatives and severe specifications driven by the public sector as they relate to:	housing the elderly and disabled-handicapped populations which is currently leading to the development of new technologies services and expertise in social and healthy housing(i.e. CMHC's Healthy Housing Design Competition, research and development initiatives related to the smart house technology, including devices to help elderly and disabled persons). The focus has also been on private sector housing for these special needs.
	enhanced energy-efficient and environmentally-friendly housing leading to the development and the demonstration of new technologies and services (i.e. EMR's Advanced Houses program) beneficial to both the on-site and off-site residential construction segments and to the renovation sector as well.
exploitation of the public sector expertise in training the various industry segments and in communicating building science know how.	CMHC in partnership with industry associations has developed a definite expertise in training builders, renovators, architects and engineers. Training vehicles have been developed addressing building science issues like building envelopes and cladding and indoor air quality.

In Canada, the advances in the housing industry and in the building process has benefitted particularly from a strong private-public partnership. These areas of specific expertise should translate into competitive edge and strengths in the international traditional markets in the short and medium term, if already commercialized in Canada, and if provided with definite competitive advantages over what the local industry is already or likely to supply in the short term. Here again the public-private partnership may be greatly beneficial.

2.3 STRUCTURE OF THE INDUSTRY

2.3.1 Home Builders

In Canada, homebuilders are the focal point of the network of firms in the housing industry: they bring together the necessary products, labour and information, navigate the web of regulatory requirements, organize the various inputs into a smooth and efficient production schedule and package the result into an attractive, saleable product for the homeowner or renter. This segment of the industry, often called the "mainstream" component, provides services that are highly labour intensive, using a work force usually hired locally. The latter two characteristics prevail also for on-site home builders working in the developed countries of North America, Western Europe and Pacific Rim.

Demand is local and fragmented, most firms are small and complex local regulations complicate the homebuilding production process. Thus, this segment has been characterized as slow in adopting technological innovation in its production and management process (i.e. computerized aids) and in integrating it into its final products. Its productivity has been however progressively enhanced by the gradual introduction of industrialized or manufactured components in on-site construction.

The structure

There are a vast number of homebuilders in Canada and generally they are small firms. According to CHBA, there were approximately 20,000 builders in 1986 the latest year for which data are available. Of these, three quarters were very small with gross revenues of less than \$ 250,000 CDN. Less than 8% had revenues of \$ 1 million and more. Sub-contractors, who provide the trades necessary to build housing also tend to be relatively small companies. The typical homebuilding firm in Canada builds fewer than 10 houses per year. Few homebuilders operate in more than one market area and those that do, operate only in selected markets. No homebuilding firms are active in all major Canadian markets. Large homebuilding firms generally construct 100 or more homes per year. These firms typically have a professional management, including a core staff having construction management, accounting, financial and marketing skills. The average large builder constructs about 200 houses per year-this is considered very small relative to large firms involved in international competition.

The structure of the single-family homebuilding industry varies widely across the country. All major urban markets have a large number of small firms; less uniform is the role played by large builders in the major urban markets. The structural differences among major urban markets reflect, among other things, differences in local market land ownership patterns and the regulation of building and land development processes.

Key characteristics of the industry players

The absence of very large firms in the single family homebuilding industry suggests an absence of substantial economies of scale. Many characteristics of the market place for new homes combine to produce this lack of large firms:

- * geographically dispersed and fragmented markets
- * heterogenous consumer demand and the fact that the housing product is tied to specific sites
- * Extensive local regulations and barriers to interprofessional integration (architects-contractors-developers) and to interprovincial mobility
- * Cyclical nature of production-demand
- * Ease of entry.

With relatively free entry and exit for firms that can and have operated with low capitalization levels using banks and suppliers to finance their operations, the industry's margins have traditionally been very tight. The slowdown in the housing activity has exacerbated this situation. Homebuilding has become therefore a highly competitive business with intense competition based on both price and quality. It is expected that large firms will gradually increase their share of the market in the future. The introduction of computer-based technology will likely stimulate the market penetration of larger firms. Medium-sized firms are likely to increasingly become specialists in particular market niches or become more like general contractors, working for developers of planned lifestyle developments.

As in the other developed countries, the homebuilders segment of the Canadian housing industry has showed over time a definite efficiency in adjusting to economic cycles. In an operating environment increasingly constrained by various local regulations, the home builders have been, however, reluctant to add any source of complexity (including the complexity associated with entering the almost unknown export business) to the already highly sophisticated housing production process they manage.

Few on-site homebuilders have developed, so far, an international experience in the traditional markets covered in this mandate. Their approach has been more opportunistic than systematic; initiatives have been often associated with international construction projects in the commercial-institutional sector or to ad-hoc projects in regions affected by climatic or geologic disasters. No statistics sum up the experience accumulated so far.

If one wants to compare with the international business developed so far by Canadian general contractors (who could be considered as the "Integrators" of commercial and industrial construction), it is estimated that the latter activity amounts to about \$1 billion of work (or less than 2% of the total construction work performed annually by Canadian firms).

Since the work force is generally hired locally for these projects, general contractors usually prefer to create a new company abroad (often through joint-ventures with local companies) to exporting their services from their Canadian base. The export potential therefore transforms itself into a foreign investment potential. Some opportunities for export in this sector stem from the need to train local contractors to use specific skills and techniques or to provide management services. Compared to European and American firms, Canadian general contractors have not developed in-house skills or close links with engineers and architects. This lack of global capability for project delivery appears to be detrimental to the penetration of export markets. Joint ventures and consortia could provide them with the capability to seize international opportunities. Similar conclusions are likely to apply to the on-site home building industry.

Conclusions

The structural changes foreseen in the future are likely to accelerate the transition the industry has already started. The housing industry will not need to produce as many new housing units as it has in the past unless population growth trends change dramatically through a further increase in immigration targets (target figures in CMHC projections are assumed at 250,000 immigrants per year). While the markets for new housing are expected to shrink, they will also be more discrete. The housing industry will have to develop enhanced capabilities to identify and cater to these newly emerging markets: niche marketing and enhanced flexibility to rapidly changing customer preferences will be required for business in Canada. These abilities will be necessary for industry members who decide to enter the renovation market or the export business in traditional markets in order to diversify and increase the volume of their activity over time.

2.3.2 The Prefabricated Housing Industry

Factory-built, prefabricated or manufactured housing is defined as the construction of dwelling units in a factory remote from the job site. The amount of plant assembly varies from pre-cut packages through to wall assemblies up to completed three dimensional or modular units. A commonly accepted rule of thumb for a factory-built house is one in which at least half of the structural frame has been produced in a factory.

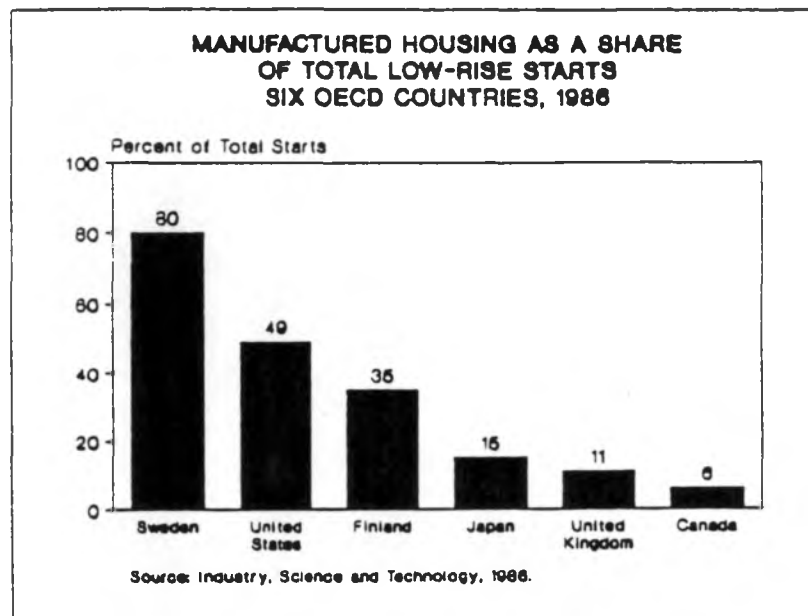
The industry structure and activity

The industry is currently experiencing slow sales and plants are operating well below capacity. The dream of the 1930s and following decades of a house in a day, manufactured solely in the factory, has not become commonplace in Canada. Even as builders have decreased on-site labour through the use of factory-built components such as roof trusses, kitchen cabinets or stairways, the mainstream housing industry has remained site-based. Currently there appears to be little enthusiasm for the concept from either builders or consumers in Canada.

Today the prefabricated housing industry in Canada is mainly oriented to low-rise rural production. In some rural areas, prefabricated housing accounts for as much as 30% of the single-detached market. Most producers have one main product type and one plant. Production facilities tend to be dispersed due to the limitations imposed by transportation costs and the need to serve customers in extensive rural areas.

The fabricated housing industry in Canada grew out of the mobile home industry after 1960. Shipments of prefabricated buildings in Canada totalled \$1 billion in 1988 the latest year for which comprehensive data are available for all sectors in the industry. These total shipments were split almost equally between prefabricated non-residential metal buildings (\$547 million) and prefabricated wood buildings and mobile homes in the residential sector (\$562 million). Prefabricated wood buildings shipments totalled \$445 million in 1988 four times as large as the shipment of mobile homes. These shipment figures include products destined for both domestic and export consumption.

In 1988, there were 12,000 prefabricated housing units shipped in Canada (including panelized and pre-cut housing, modular and mobile homes). These represented less than 10 percent of total single-detached starts and about 6 % of total housing starts. Comparable market penetration data indicated that the level of prefabrication in Canada is far below that in several industrialized countries including the United States, Sweden, Finland, Japan and the United Kingdom.



Panelized and pre-cut housing accounted for 42% of the prefabricated units shipped in 1988, modular 22% and mobile homes 37% (4411 units). Panelized, pre-cut and modular wood house production in Canada totalled just over 7600 units worth \$445million in 1988. The 100 establishments in the industry employed 3600 employees- each establishment produced an average of 76 units or slightly over 2 units per employee. Each unit was worth an average of \$ 58,000.

While data on the number of units shipped are not available for 1989 and after, other data on the value of shipments of the prefabricated wooden industry indicate that there was a significant decline in shipment in 1991 (from \$445 million in Canada in 1988 to \$470 million in 1989 and 1990 to only \$368 million in 1991).

Mobile home production across Canada in 1988 totalled just over 4400 units. The units were worth a total of \$117 million or an average of \$ 26,000 per unit. There were 18 establishments employing 1100 persons with an average production of 244 units per establishment. Unlike panelized, pre-cut and modular housing, mobile home shipments have not fallen off in the past few years.

The 1991 recession negatively impacted the manufacturers of prefabricated housing as it did all home builders. In general, prefabricators are more vulnerable to recession than stick builders because factory production involves much higher fixed costs in terms of plant and industry-specific human capital in the semi-skilled labour force. Both factors make it far more difficult for factory producers than stick- builders to cut overhead in response to shrinking demand. The difficulties in the last three years have resulted in several bankruptcies and re-organizations.

As the economy moves out of the recession, there will be increased demand for housing and manufactured housing can expect to share in the upturn. However an increase in the market share is not expected particularly with the reduced costs now faced by homebuilders who have streamlined their operations compared to the late 1980s and the incursion of new U.S. modular competition. With the current mix of products and marketing, it seems unlikely that there will be significant growth in the modular industry in the short-term.

For pre-cut package suppliers, the outlook appears brighter. As the economy recovers, their main market i.e. second home and cottage market, can be expected to turn around.

International trade

Production of prefabricated buildings in Canada peaked when both the domestic and export markets were strong in the mid 1970s. During this period, for example, Canada shipped more than 10,000 industrial camp units to the Middle East.

Currently Canada as a whole is a net exporter of prefabricated buildings despite a \$36 million trade deficit with the United States in 1991. A pattern of decreasing exports to the United States and increasing imports from the United States has been observed since 1987, except in 1991. Estimates of the breakdown of exports of wood prefabricated buildings by product type prepared by the Monitor group indicate that:

- * Pre-cut packages accounted for more than half of total Canadian prefabricated building exports in 1990 and log homes accounted for another one-third.
- * In 1990, Japan surpassed the United States as Canada's most important export market, based largely on the strength of log home shipments from British Columbia.

Historically, the United States has been the largest market for Canadian exports of prefabricated buildings. Prefabricated housing accounts for a much larger share of the market in the U.S. than in Canada. Part of the reason is the large volume of mobile homes shipped annually in the U.S. but modular and panelized production is much more important as well. U.S. modular housing producers have been very successful in the northeastern states and they are actively pursuing opportunities to export their products in Ontario.

There is a debate in the industry about the potential for exports. The small domestic market is often cited as a problem in achieving significant sales volumes for Canadian manufacturers. Exports are a potential means of achieving these volumes, but for most products, Canadian producers are not competitive with Canada's closest potential market- the United States.

There is a significant difference between marketing methods adopted by the U.S modular housing companies and Canadian manufacturers. Most modular producers in the U.S. sell directly to builders who market the finished house-land package to homebuyers whereas most modular producers in Ontario sell mainly to individuals.

Opportunities exist in the U.S for some specialized products. Overseas, the high quality of Canadian products may offset some of the cost disadvantages compared to U.S product. Small domestic producers may however need the support from governments to explore these markets and to mount a successful effort to achieve adequate sales volumes. Some demonstration projects could assist the industry in moving into new markets (e.g. use of modular housing for townhouse social housing projects). Promotion of the energy efficient aspect of the industry as well as its capability to produce housing for the environmentally-sensitive could be promotional anchors.

The table on next page summarizes the key characteristics of the manufactured housing industry in Canada.

Conclusion

Wood frame manufactured housing is one of the main strengths of the Canadian housing industry to be traded in international markets if adapted to local housing environments (local regulation, local cultural tradition, weather conditions, connection standards to public services- sewage, water, electrical power). It has an international reputation and already represents a significant share of the Canadian prefabricated building exports. The steel frame manufactured housing industry is facing serious difficulties due to severe competition from the U.S. industry.

The manufactured housing industry offers a wide range of products to suit the needs of ultimate customers and homebuilders for first and second homes: modular and pre-engineered components, panelized houses, "packaged houses". Some companies are integrated vertically and manufacture also main components such as windows, doors, etc.

If properly marketed and planned, manufactured housing could become a growing market both in Canada and abroad; its advantages to homeowners and homebuilders are numerous:

Profile of the prefabricated building industry (1988) ¹²		
<ul style="list-style-type: none"> ◆ 12,000 housing starts (i.e. 6% of the 234,800 total housing starts) ◆ shipments: \$1,109 million ◆ export: 7% of shipments 		
housing starts repartition: <ul style="list-style-type: none"> ◆ 22% modular ◆ 37% mobile ◆ 42% components 		
shipments break-down: <ul style="list-style-type: none"> ◆ 41% pre-engineered metal buildings ◆ 40% prefabricated wood buildings ◆ 11% mobile homes ◆ 8% portable buildings 		
between 1986 and 1991, exports increased by 23.6% : <ul style="list-style-type: none"> ◆ 1986: \$75.8 million ◆ 1991: \$93.7 million 		
in 1991, exports to the U.S. market have dropped and were no more predominant: <ul style="list-style-type: none"> ◆ 1986: \$70.4 million (i.e. 92.8% of total exports) ◆ 1991: \$17.9 million (i.e. 19.1% of total exports) 		
prefabricated buildings of wood represent 78% of the export of the manufactured housing (1991): <ul style="list-style-type: none"> ◆ prefabricated buildings: \$93.7 million ◆ prefabricated buildings of wood: \$73 million 		
prefabricated buildings of wood are mainly exported to:		
◆ U.S.A.	1989: \$33.9 million	1991: \$13.9 million
◆ Japan	1989: \$28.2 million	1991: \$22.9 million
◆ West -Germany	1989: \$ 2.5 million	1991: \$ 5.5 million
◆ France	1989: \$ 1.8 million	1991: \$ 2.6 million
◆ U.K.	1989: \$ 1.6 million	1991: \$ 1.0 million
◆ other	1989: \$ 8.2 million	1991: \$28.0 million
◆ Total	1989: \$76.2 million	1991: \$73.0 million

¹ "The prefabricated building industry in Ontario", Clayton Research Associates; statistics cover all Canada

² "Prefabricated buildings of wood", ISTC, January 1992

- * to homeowners: good quality (high quality lumber and strong experience in wood framing, severe technical specifications, R-2000 , quality control at factory) at an affordable price, fast delivery, design flexibility
- * to homebuilders as an alternative or a complement to on-site construction: less uncertainty and lower risks (just-in-time delivery, reduction of interim financing), higher profitability (more efficient use of materials and energy), more time available for marketing by reducing time required for scheduling, inspecting, etc...

A wide range of options could be considered by the industry in order to develop international trade:

- * exports of panels or "packaged homes"
- * training of local builders to assemble manufactured houses according to proper specifications
- * Construction of production facilities in foreign countries
- * Joint-ventures with local partners for marketing, production, assembling, etc.

2.3.3 The Renovation Industry

Structure and activity

The renovation sector is comprised of many companies offering a wide range of goods and services. Most renovation firms are small. It is more a "master craftsman" industry with little in the way of mass production or modern management techniques. Despite the ease of entry and exit, the rate of turnover appears low for residential renovation firms. As a result a core of firms in the business are fairly well established.

While in the broad sense, renovation is the current growth sector of the housing industry, much of this work is undertaken by property owners or by special trade contractors not considered by Statistics Canada a part of the housing industry but considered as such by CMHC. Statistics Canada refers to renovators as firms primarily engaged in residential additions, major improvements and repairs, renovation, rehabilitation, retrofitting and conversions involving more than one trade. Few medium-sized or large renovation firms operate in Canada. Renovation firms generally operate in one geographic area. The necessity of becoming familiar with different municipal regulations and procedures that affect renovation work is one factor underlying this.

Most renovation firms have few employees. The current industry structure reflects the diversity of work classified as renovations and the small size of most renovation jobs. The geographically dispersed markets and differing local regulations tend to inhibit the realization of economies of scale. The renovation industry has a very limited experience with international trade.

Spending on repairs and improvements to existing housing totalled an estimated \$21 billion in 1991, slightly more than spending on new housing. In contrast to new housing, renovation spending is relatively stable: it has increased progressively over the post war period in response to the aging and growing housing stock, changing consumer preferences and occupancy. It is expected that the volume of renovation activity will continue to grow up to the end of the decade. It is also expected that the demand for renovation will remain extremely fragmented reducing the probability of significant economies of scale to occur in the near future.

2.3.4 The Residential Land Developers

The residential land development industry is defined broadly to include firms responsible for the conversion of raw suburban land to serviced residential land use, as well as those responsible for the conversion of land use in built-up areas for new housing (e.g. buying several adjacent existing houses, demolishing them, obtaining a rezoning for apartments and preparing the site for the construction of apartments).

Land markets are more complex than markets for new housing construction. Local factors, such as topography, land ownership, the municipal planning process, servicing standards, taxation and financial requirements and attitudes toward residential growth shape the features of the residential land market and thus the land development industry.

In Canada, residential land developers usually act also as general contractors for their projects. Land developers usually control an inventory of sites to be developed in a timely manner. As soon as they observe an upward trend in the demand for housing, land developers start housing projects on their properties. Land development is a local business. Large companies usually transfer the full decision authority to local offices .

Profile of the Canadian real estate development industry (1987) ¹
◆ about 1,200 firms
◆ total revenues: \$10 billion
◆ total assets in Canada: \$27.5 billion
◆ many small firms and a small group of large, world-scale corporations that account for a major share of the industry assets
◆ the assets of the 7 largest Canadian developers were reported to be \$20 billion in Canada and \$15 billion in the U.S.A.
◆ about 250 Canadian companies are active in the U.S. market

¹ ISTC "industry profile"; includes all construction activities

Success factors in this business include:

- the control of major financial resources required for the period elapsing from the land purchase to the ultimate sale of housing units.
- the ability to build up an inventory of sites to be developed in a timely manner
- a close understanding of local markets and the capacity to predict urban migration trends
- the ability to address and deal with local political issues (e.g. location of a new fire station, etc) and changes in by-laws (e.g. urban zoning regulation,...)

Land development is a complex business full of uncertainties. It is even more complex for a newcomer to foreign markets. Canada has however an experience in land development abroad. This experience has been mostly concentrated in the U.S. market place (especially in the commercial sector). Canadian land developers abroad are usually not acting as general contractors. They normally defer to local resources (both general contractors and material suppliers) who seldom refer to Canadian technologies, services, systems or products.

2.3.5 Architects

The architects community in Canada is a fragmented industry comprising a multitude of small firms. In Canada, architectural services are mandatory in commercial buildings and in multiple storey housing projects only. Architects rarely act as building developers for apartment building projects. On some occasions, they will initiate housing developments comprising small dwelling units such as bungalows, row house, duplexes.

Profile of the architectural and engineering services industry (1988) ¹
<ul style="list-style-type: none"> ◆ 3,200 operating firms in Canada (about one quarter are incorporated) ◆ 11,500 employees ◆ domestic billings: \$716 million
◆ only 10 firms offer integrated architectural and engineering services (the number of engineering firms that offer integrated engineering and architectural services is higher)
◆ only 7 firms have over \$7 million in revenues, accounting for a high proportion of the domestic revenues and virtually all of the foreign billings
◆ foreign billings (\$6 million) account for only 1% of total billings
◆ only 5 Canadian firms are known to have permanent offices outside Canada but many others have associated themselves with local practices in foreign countries
◆ the major export market is the U.S.A., which provides about 35% of Canadian industry revenues from foreign markets

¹ ISTC "industry profile" 1991, cover all the construction industry

Some Canadian architects are active abroad (U.S., Western Europe,...) , selling concepts based on wood frame structures and initiating housing projects. They usually speak local languages and work in partnership with local architects. Their projects usually involve a substantial flow of Canadian know-how and products. The Canadian architecture expertise is usually exported when Canadians win international bids and competition. In such cases, suppliers and contractors are selected from the response to call for tenders that cannot be influenced by Canadian architects.

2.3.6 Key Industry Players in the Housing Export Business

As a conclusion to this Canadian housing industry profile, this section introduces the working assumptions on the respective roles that could be played by the various industry players in international markets. These assumptions were used and validated during the investigation underlying the identification of the market opportunities described in the next chapter.

The involvement of developers, architects and financial institutions in international housing markets has been limited so far. The most active ones have been the developers especially in the U.S. commercial markets and to a lesser extent, in the U.S. residential sector. More recently, they undertook some initiatives in other foreign markets in an effort to seize other opportunities and to meet emerging needs. Any of the developers, architects or financial segments of the housing industry could however play a key role in the export business. Located at the upstream level in the decision making process, they play a key role in the choice of architectural and technology design that will then determine the suitability of Canadian products and services for specific projects. Their access to foreign markets will however be limited by a host of factors.

Developers, whose traditional business is to take the initiative and launch housing projects on a local basis, can do the same in foreign markets, if the success factors introduced in section 2.3.4, are prevailing and if they can benefit from suitable local conditions and support. They generally "close the deals" and have the final word on every aspect of projects (time frame, location, architectural design, structural technology choice, etc). Exporting land development services may lead exports by the Canadian housing industry.

Architects may act as developers: they make take the initiative and urge developers to start new projects. In several foreign countries, local architects act as project managers. They play a role in the selection of technologies for housing projects. Through their design approach, they may open or close the door to Canadian products and services. The reinforcement of their export activities has to be considered.

Large engineering firms are usually those who answer calls for tender and lead turnkey projects for workers's accommodation near public works projects or for the construction of company towns in remote areas.

Conditional financing is a way to make housing project leaders purchase Canadian goods and services. Financial institutions sometimes take the initiative for housing projects and hire developers and architects for this purpose. Financing is often a key selling point in project development. This is particularly important when considering countries where financial resources are insufficient to support rapidly growing needs (e.g. Mediterranean countries such as Spain, Mexico, Eastern Europe).

Research centres, universities and government departments such as EMR in Canada may steer Canadian exports as they promote new Canadian technologies and know-how. However the effect of such promotional activities is lessened if they are not combined with a "push" strategy by the housing industry itself.

Canadian regulatory and standards organizations have also an important role to play in the export business of the Canadian housing industry. They contribute to removing barriers and creating a more appropriate and receptive environment for Canadian export flows.

Producers of manufactured and panelized houses and manufacturers of modular and pre-engineered components are already important contributors to the export successes in the Canadian housing industry. They constitute a potential growth segment of the industry on international markets. As for developers, architects and financial institutions, they are able to access foreign markets by themselves but rely on local housing project initiators (land developers and architects). The partnership of developers and architects or financial institutions would help them to enter the market of turnkey projects to suit foreign needs.

As highlighted in section 2.3.1, on-site home building is a labour-intensive activity that usually relies on local crews in Canada and in foreign markets. It is through their management skills and technical and "integrative" know how, that homebuilders are likely to access foreign markets. Partnership with local or Canadian project initiators may also lead to further international trade for this segment of the industry.

Downstream suppliers do not play a steering role in the housing industry export activity. Their products may be part of manufactured houses export. They may also benefit from foreign demand as a downstream effect associated to the penetration of new foreign markets by the Canadian housing industry. Yet, exports of raw materials (e.g. cement, lumbers, steel, etc) and products with added-value (e.g. doors, windows, tiles, bricks, bolts, etc), appliances, and systems (H.V.A.C. furnaces, etc) are developing and are contributing efficiently to the promotion of Canadian housing technologies abroad (e.g. international marketing of wood frame housing with the assistance of COFI-Council of Forest Industries).

EXPORT OPPORTUNITIES IN NORTH AMERICA, WESTERN EUROPE AND PACIFIC RIM DEVELOPED MARKETS

3.0 INTRODUCTION

This chapter is an overview of the housing markets in six developed countries in North America, Asia and Europe. Each country analysis (U.S.A., Mexico, Japan, Germany, France and Spain) describes the key elements of the local housing market as well as some export opportunities that have been identified from a review of current publications and interviews with Canadian officials posted both in Canada and abroad. Opportunities were identified using a "top-down" approach where macro-economic considerations lead the analysis. Interviews were also conducted with Canadian entrepreneurs having experience in these countries. These analyses are limited to the information that could be assessed within the time frame and resources available. They are designed to provide the Canadian housing industry with an overview of the prevailing local environments and associated potentials and also to illustrate the kind of market intelligence and information sources that a Canadian firm willing to engage in international business should consider.

Selecting six countries in the three (3) developed regions of the world was not an easy task and a number of other countries could just as easily have been selected. After some preliminary research, six countries were chosen:

- * U.S.A. because it is Canada's primary traditional export market;
- * Mexico because of NAFTA, its growth potential and housing needs;
- * Japan because the Japanese construction market is as big as the U.S. or E.C. ones;
- * Germany and Spain because they both have huge housing needs to be served;
- * France, because of the lack of wood frame housing supply (despite the current turmoil in the French construction industry and market)

This range of countries also covers the broad categories that were identified in the first part of this study i.e. countries with major housing needs or development potential, compared to countries with special needs or niches, and countries with or without an expertise and tradition in wood frame housing. As developed countries, each of them has a strong and mature domestic construction industry as well as a financing system and standards and regulations that have been strengthened over time to suit or shape the local needs.

The country analyses have been designed to be both comprehensive in scope and introductory in level of detail enabling an understanding of the current situation in each country. All the analyses present as much detail as possible from information sources with different levels of proficiency and experience. They are structured in the same manner:

- * First, a brief summary of the key points and findings is provided.
- * Part 1, *General Overview*, gives the basic information on the country's economy.
- * Part 2, *Housing Background*, describes the market demand (housing starts, housing needs, financing).
- * Part 3 describes the picture of the local construction industry (structure of each segment, general organization)
- * Part 4 summarizes the key elements affecting of the local construction environment (Government's role, licensing, building codes, construction costs, technology and design and other relevant issues).
- * Part 5 highlights current experience and overall opportunities and barriers that have been identified.

All references (local industrial organizations and publications, bibliography and list of the interviewed persons) are appended. Finally, in this chapter, all dollar figures quoted are \$US unless otherwise indicated.

3.1 THE U.S. HOUSING MARKET KEY ELEMENTS AND POTENTIAL EXPORT LEADS

The United States construction market is the largest in the world. Construction expenditures in California alone are approximately equal to those in Canada. There are 41 metropolitan areas with a population exceeding one million, compared to 3 in Canada. The U.S. has been and continues to be Canada's major export market because of its proximity and cultural and linguistic similarities.

A large number of Canadian companies are already very active in the U.S. market, especially in the commercial construction market and in the hardware and building products segments. The U.S. market indeed offers a range of export opportunities for Canadian firms, from architectural services, manufactured housing, building products and remodelling to customized housing and R-2000 technology and related products.

The U.S. market is also highly competitive and accordingly, there are some prerequisites to succeed in penetrating it. Canadian companies have to be able to offer a fair price, demonstrate good quality and prove their ability to supply in quantity and on time. Merchandising effort, display materials, advertising with attractive packaging, distributor sales support, customer support are essential. Firms also have to be cognizant of the need to communicate in language suitable to the regional diversity of the U.S. and not rely on Canadian bilingual materials.

3.1.1 General Overview

The long-awaited U.S. recovery has been stunted by profound structural changes that are reshaping the economy and consequently the U.S. is heading into the third year of one of its slowest recoveries. The real estate sector and construction job markets, which led previous recoveries are still facing difficulties: it is estimated that the real estate sector will not be capable of absorbing the office space built in the past decade until the year 2000 and unemployment is diminishing at a slow rate. Consumers, companies and governments are preoccupied with cost cutting and with paying down onerous debts that were built up during the 1980s. The U.S. publicly-held federal debt rose to more than 50% of the gross domestic product in 1992, almost twice as much as in 1980. However there are some signs of better economic health as the more productive companies and increasingly confident consumers are shaping up support a stable, long-term recovery. President Clinton's economic initiatives should also boost the recovery.

Key figures (In \$US)

GDP	\$5.67trillion
GDP per head	\$22,520
Population	251.8 million +0.6% density: 27 inhab. per km2
GDP growth	1992: 1.7% 1993: 2.8%
Inflation	1992: 2.9% 1993: 3.5%
Unemployment	7%

Source: "The world in 1993" The Globe and Mail and The Economist

3.1.2 Housing Background

In 1991, the number of housing starts declined by 15% in comparison with 1990, to about 1 million units. The number of housing starts was about 1.1 million units in 1992 and is expected to rebound to a level of 1.4 million in 1993. Single family construction has held up much better than multifamily building. The demographics are more favourable for single family starts as financing for home buyers has remained available at reasonable mortgage rates. Remodelling activities in single family and multi-family dwellings will continue to account for an increasing share of total activity.

Activity and outlook by segment

In 1991, residential construction accounted for about 45% of a total \$380 billion in new construction representing 7.3% of GNP. 1991 was also a record year for remodelling and repairs. Residential construction is projected to grow slower than the overall economy during the next 5 years (for the 1992-96 period, annual growth is expected to average 2 to 3 %).

Construction industry employment in the U.S. for 1991 was about 4.9 million. In addition, more than 1.4 million people were self-employed as proprietors and working partners.

in billions of 1987 dollars	1988	1991	1996 (est.)
Total new construction	415	380	404
Total new residential	190	153	178
single family	112	90 (59%)	105
multi family	21	11 (8%)	14
home improvement	57	52 (33%)	60
residential maintenance repair	39	42	47
Total residential market	219	195	225

Source: NAHB

Single family housing

In 1991, private single unit housing starts were 850,000 units, down about 5% from the 895,000 starts recorded in 1990 and well down from the 1,180,000 units in 1986. About 800,000 were detached houses (preferred structure and accounting for an increasing proportion) and 50,000 were townhouses. The median sales price of a new single family home was \$125,000 in 1991. In 1991, interest rates on conventional 30 year, single family, fixed-rate mortgages declined to their lowest levels in a decade (9.3% in comparison with 10.1% in 1990), helping new homes sales to recover (534,000 units in 1991 in comparison with 480,000 units in 1990) but not enough to have a significant effect on the overall number of starts. Continuing low mortgage rates and increasing consumer confidence in the economy should encourage homeowners to trade up to newer, larger houses. Availability of smaller, affordable starter homes will then increase for new home buyers, but not enough to solve the issue of housing affordability for first-time buyers and low and moderate income renters which is expected to continue through the 1990's.

Multi family housing

Multi unit housing consists of 2 to 4 unit structures, some townhouse-style buildings with more than 5 units and apartment buildings, the latter accounting for almost 80% of multi unit housing starts in 1991. Multi unit housing was only 16% of total housing starts in 1991, i.e. 160,000 structures compared with 298,000 in 1990 and 670,000 in 1985.

Multifamily construction has been decimated by vacancies, tax reform, a shortage of financing, burdensome handicapped-accessibility requirements, and downward pressures on rents due to a high number of rental vacancies.

The Financial Institutions Reform, Recovery and Enforcement Act (FIRREA), enacted in 1990, has severely limited the amount of acquisition, development and construction lending by financial institutions. As a result, developers and builders have found it difficult to obtain adequate construction loans. Congressional passage of the Fair Housing act of 1988 and regulations of the department of Housing and Urban Development have also had a major negative influence on the construction of multifamily housing, which probably will remain depressed through the mid 1990's. However there are significant needs for low to moderate income households.

Residential upkeep and improvement

In 1991, expenditures for upkeep and improvement of residential properties were \$110 billion. In ten years the residential remodelling market has grown 130%, becoming the fastest growing segment of the total private U.S. construction market. Expenditures for home improvement and repair are expected to remain relatively strong throughout the 1990's as the housing stock ages and homeowners upgrade their existing houses.

Manufactured houses and industrialized components

There were 165,600 manufactured housing units shipped in 1991, valued at \$3.9 billion and accounting for about 14% of new additions to housing. This share of the market is similar to that held by the industry through the 1980's. Manufactured houses account for more than 80% of houses costing less than \$50,000 and are purchased mainly by first-time buyers, rural residents, elderly people and nontraditional households. The potential market of retired people of moderate and low incomes, many of whom choose to retire in the South, is increasing.

Prices and regional differences

In the 1980s, median and average new home prices increased much faster than inflation, because of the shift to larger homes with more amenities. There are wide regional variations in the affordability of homes sold. In some east coast and west coast markets, less than 20% of the new and existing homes sold were affordable to a median-income family, while in the midwestern and southwestern markets, a median-income family could afford most of the available homes.

Cost Breakdown for Median 1990 New Home

	U.S. \$ %	Northeast \$ %	Midwest \$ %	South \$ %	West \$ %
Construction cost	79,394 53	83,820 44	83,790 63	70,395 57	79,464 44
Finished lot cost	32,956 22	53,340 28	25,270 19	24,700 20	45,150 25
Financing cost	7,490 5	15,240 8	3,990 3	7,410 16	9,030 5
Admin and profit	29,960 20	38,100 20	19,950 15	20,995 17	45,150 25
Sales price (avg)	149,800	190,500	133,000	123,500	180,600

Source: NAHB Construction Cost Survey, September 1990

According to these figures, the Northeast and West markets seem to be the most attractive with both the highest average sales price and the highest administration and profit revenues and margins.

Finance

The U.S. financial structures that support property ownership are becoming more similar to the Canadian ones. In recent years, all aspects of the housing finance system have been in turmoil and one can speak of a liquidity crunch in the U.S. However, the growth of the secondary mortgage market through mortgage-backed securities, due primarily to the operations of the privately-owned, government-sponsored agencies, has kept financing for home purchases available and reasonably priced. The supply of land acquisition, development and construction (AD&C) credit has been disrupted by legislation that imposed new restrictions on thrift institutions through more stringent regulation of both thrifts and banks and through new lending practices adopted by many depository institutions on their own initiative.

To a large extent, these changes are permanent and builders will have to learn new ways of doing business. They will have to raise more equity, provide better documentation and pursue less speculative strategies.

The secondary market will continue to serve as the key source of housing finance, and financing that is not easily accommodated by the secondary market will be more expensive and less available. The role of commercial banks in all aspects of housing finance will grow, despite the recent trend toward restrictions on AD&C lending. By 1991, banks provided about 80% of debt financing for land acquisition, construction, and development on residential properties.

3.1.3 The U.S. Housing Industry

Structure and organization

Home builders

As in Canada, the home building industry is characterized by large numbers of relatively small firms operating in limited geographic areas. Generally in U.S., the term *home builder* refers to three types of firms:

- * general contracting firms that, for a fee, organize and perform construction on property owned by someone else;
- * merchant builders that acquire land, build homes, and sell the package (land plus structure);
- * investment builders that build homes on land that they own and then rent them.

Even though the average number of starts per builder has declined, the share of starts accounted for by the largest firms has increased. In 1979, the 100 largest builders accounted for 10% of total starts, in 1991, they claimed 13.8% of total starts, 11.8% on the single family side and 23.9% on the multifamily side. Only 9% of NAHB (National Association of Home Builders) members start more than 100 units, but they account for two thirds of starts. The comparative advantages of very large builders in finance and marketing may lead to an even larger share in the next few years. However, national consolidation has been often predicted but never realized. Local consolidation, however, has been growing steadily and accelerated during the credit crunch. In many major housing markets, a small number of home builders have a disproportionate share of the market. The largest firms' market share growth was mainly at the expense of medium-sized builders, while small, custom-builders multiplied and prospered. With demographics favouring trade-up housing, there will be good opportunities for small custom builders.

Specialty trade contractors account for most of the actual value of construction work, with the majority of new home builders subcontracting more than 74% of construction cost. The share of construction cost that is subcontracted has grown over time.

In 1991, more than one third of the top 100 companies lost money, and net profit averaged less than 3%.

Manufactured housing

Systems built housing is increasingly being used by builders and developers who want to deliver a high quality product in less time and at a lower cost. The concept of constructing a dwelling in one place and delivering it to a permanent site is not a new idea, yet, the technology used today is the most modern and innovative available. There are four types of systems built housing: modular, panelized, log and dome. They all use alternative constructive methods which utilize various forms of factory produced items. However, they differ in assembly, code requirements and on-site construction.

Remodelling

Remodelling is defined as any construction-related work on an existing property intended to either maintain or improve the property. Property maintenance and repair expenses are classified as *construction upkeep* whereas additions, alterations and major replacements are classified as *construction improvements*. According to the 1990 census, the \$106.8 billion residential remodelling market was distributed as follows:

Maintenance & repair (upkeep): \$51.3 billion

Additions & alterations: \$37.3 billion

Major replacements: \$18.2 billion

The 273,000 contractors involved in residential remodelling consist of 83,000 general contractors and 190,000 specialty trade contractors who share the remodelling market as follows:

General contractors remodelling only	8%
General contractors remodelling & building	8%
Specialty trade contractors	22%
Other remodelling contractors	38%
Property owners (Do-It-Yourself)	24%

Architectural firms

According to a 1987 study by the Research Department of Architectural Record, the average U.S. architectural firm has been in business over 19 years, employs 19 persons and works in 4 states. Almost 98% of the firms indicated that they have done remodelling work over the past 2 years and 10.7% had been engaged in practice abroad, including 5% in Canada.

Land development

In 1991, because of the recession, land became available in many markets at discount prices, but most builders did not have the equity or borrowing capacity to take advantage of the opportunity. However, many of the top 100 builders have been purchasing land at bargain prices (for example as much as 40% below prices just two years ago in Washington D.C.) and have an extensive supply of lots to develop. Besides, the publicly held companies have been, since mid 1991, favourably viewed by Wall Street and their stock prices have climbed by more than 75%. Using that increased equity and their access to credit, these companies have invested in land and entered new markets at the bottom of the cycle.

Building materials and hardware

Given the fact that there is a large number of Canadian companies already exporting building materials and hardware , this paragraph focuses on the distribution channels.

Retail marketplace: There has been during the 1980s a phenomenal growth of giant national home center warehouses, selling both products for contractors and DIY (Do-It-Yourself) products. This growth is expected to continue in the 1990's. For example, Home Depot, the largest of these chains, has grown from \$118 million sales and 10 stores in 1982 to \$5.1 billion and 174 stores in 1991. Yet, according to the company's annual report, the total market for home improvements is estimated at about \$105 billion and the six largest chains account for only about 14% of the total market, indicating a very fragmented market.

Distribution marketplace: There are several kinds of distribution channels for Building Materials and Hardware (BMH) manufacturing companies:

- * Buying Co-ops: dealer-owned wholesalers are made-up of locally-owned retailers who are also stockholders in the wholesale operation. Retailers can purchase outside the co-op but the co-op sells only to its members. It is estimated that in 1990, building supply home center giants purchased 36% of their product from these buying groups i.e. value \$6.6 billion.
- * Wholesaler Marketing Groups: these organizations have a sales force, operate nationally and offer merchandising, advertising and promotional support to their wholesalers and their dealer and retailer customers. Sales in 1991 were \$5.8 billion.
- * Building Material Buying Groups: often referred to as commodity brokers, these groups have membership dealers (mostly lumber yards) and compete with the large buying co-ops. They have a dedicated program on lumber. Sales in 1991 were \$2.3 billion.
- * Lumber and Building Materials Distributors: these companies distribute lumber, building materials, plywood and millwork, tools and in some cases, lumber only. Sales in 1991 were down at \$18.8 billion because of economic conditions and the Buying Groups tough competition.
- * Independent Full-Line Hardware Distributors: facing tough times and squeezed by warehouse chains and nationwide chains, they have shrunk from 400 to fewer than 200. They see opportunities in handling lumber and building materials, and are very selective about the line being handled. Total national sales were estimated at \$2.8 billion in 1991.

Manufacturers' representatives; They can be truly effective for a manufacturer entering a new market, introducing a new product line, or trying to reach niche markets. They are independent businessmen who earn a commission on sales made in a given territory, and assume all expenses required. A rep sales force enables a company to boost its sales by having locally-experienced professionals without the expenses of a direct sales force.

International activities and foreign presence in the U.S

Starting a subsidiary in the U.S.A. or buying a U.S. company is rather easy for a foreign firm and the trend is toward increased foreign penetration of the market. However, new rules on how cross-border taxation is treated will benefit domestic companies and penalize foreign ones.

On the other hand, the U.S. industry is active abroad. Active markets within the past two years have been Israel, Japan, the Caribbean and Spain. The fall of communism has opened up new prospects in the former Eastern Europe and the former Soviet Union. However, a lack of infrastructure, unstable economies and hard currency shortages have restricted the activities of many firms. In contrast, Mexico, Western Europe and South America are seen by the U.S. industry as developing high demand markets for American systems built houses within the next ten years

3.1.4 The U.S. Construction Environment

Federal, State and Local Government

The Federal government has reduced its support for housing production over the past decade. That support - including subsidies, housing finance agencies and regulations, and tax policy - has influenced the supply of all types of housing, but has been particularly important to the production of affordable rental housing and moderately-priced housing for first-time home buyers. At the same time, federal regulations have contributed to increased housing cost. Homelessness will remain a major legislative concern and it is possible that President Clinton's Administration may divert funds from other housing programs to address the problem.

State and local governments have become increasingly visible in the home building environment. Their primary impact has been through laws and regulations affecting builders, and through administration of federally-funded programs. States are taking an increasing role in land use restrictions, building codes, environmental regulation, consumer protection and other areas important to builders. Local governments are the most visible and immediate governmental influence on home buyers. They regulate land use and construction and they supply the off-site infrastructure that is critical to development. However, the federal government still pays for more than 80% of housing assistance directly or indirectly.

Licensing and registration

Each state has its own state licensing and registration requirements for engineers and architects. These do not normally impede Canadian professionals from working in the U.S. but often result in delays. In 1987, as part of the Free Trade Agreement, the Royal Architectural Institute of Canada and the Architectural Institute of America started to work on an "Accord on Professionalism" to remove professional barriers and it should soon become possible for Canadian and American firms to practice without difficulty in each other's country.

Building codes

Various organizations within each state have their own building codes which apply to all private and public construction contracts in the region. While this may present some difficulties, it is reported not to be a major obstacle. There are 3 dominant codes; the Uniform Building Code, published by California-based International Conference of Building Officials (ICBO), the National Building Code, published by the Chicago-based Building Officials and Code Administrators (BOCA) and the Standard Building Code published by the Southern Building Codes Congress International (SBCCI) based in Birmingham, Alabama. According to a 1992 Federal Trade Commission study, about 95% of all cities and towns have either adopted one of the three model construction codes or are covered by a state code based on one of the models. This will eventually ease the access to the U.S. market for the Canadian companies and architects.

Buy America Act

The Buy America Act is the most significant legislation limiting the use of Canadian materials in public sector contracts. This act generally requires price preferences (6% on most contracts) to be applied in favour of domestic products. In private construction projects, the foreign contractor is free to bid on equal basis with American contractors (sealed bids priced on a lump sum or unit price basis). However, the Buy America sentiment is popular among American customers and could represent a deterrent to foreign suppliers and products.

Foreign labour restrictions

Labor shortage is a problem due to the decreasing number of people in the 18-24 age bracket. U.S. immigration laws prohibit the use of foreign workers for most on-site construction work. Canadian companies working in the United States have to comply to these laws.

Construction costs

American and Canadian construction costs appear to be comparable (1987 average weekly wage in residential construction in the U.S.A. was \$400). U.S. builders have experienced substantial cost increases for some inputs such as building materials, land and insurance (medical costs and worker's lost wage compensation). Numerous local governments, especially in the Northeast and California, have adopted environmental policies that raise costs and restrict or inhibit new construction. The residential construction industry is typically not very unionized.

Technology and design

Changes in building methods will largely reflect improvements in worker productivity and worker safety, as skilled labour becomes scarce and concerns with builder liability mount. Changes in the product will be responsive to the demands of sophisticated trade-up buyers and concerns about health, safety, energy efficiency and the environment. Many design features and amenities that were setting trends in the 1980s will become standard in the 1990s including walk-in closets, large kitchens with central islands, two full- and two half-baths, skylights, security systems, and improved indoor ventilation systems.

Builders will make greater use of factory-built components systems such as wall panels and floor trusses. However, the mass market approach to home design and construction will increasingly give way to niche marketing.

Environmental issues

Solid waste management will be one of the key environmental issues in the 1990s. Builders will find it more difficult to dispose of construction waste, and in some communities a glut of household garbage will lead to restriction on new construction. Despite provisions for an innocent purchaser defense in laws regarding land with buried hazardous waste, builders will find it difficult to avoid liability. Some urban markets already restrict access of construction waste or add extra levies that have enabled specialized construction materials recycling facilities to be viable.

3.1.5 Opportunities for Canadian Firms

Current experience

Canadian construction companies have traditionally been active on the U.S. market especially in the commercial sector. A significant number of Canadian companies are used to selling building materials and hardware in the U.S. Canadian prefabricated housing companies are also active in the U.S. market, but shipping costs are sometimes a strong impediment to further penetration.

NAFTA (North American Free Trade Agreement)

NAFTA will favour Canadian exports of construction services by easing the access to temporary work permits and also exports of construction materials. However this impact will not be dramatic since there have been traditionally few trade and legal barriers.

Export Leads

Factory-built housing

Factory-built housing, which counts for about 14% of housing starts, has established a solid niche in the U.S. but has shown limited growth. Skilled labour shortages could act as a stimulus. Shipping costs have to be considered: a U.S. rule of thumb for shipping systems built homes is to keep the distance from plant to site within 300 miles.

Customized housing

With demographics favouring trade-up housing, there will be good opportunities for small specialized builders offering custom houses to meet the needs of niches.

Architectural services

Canadian architects could also do well in the U.S. market, providing that they are able to bring specialized skills. According to surveys sponsored by the Royal Architectural Institute of Canada, the "social approach" of the Canadian architects is well established and can open the door to projects for elderly people or in the health care area. Opportunities have been identified in a number of downtown and waterfront revitalization projects both on the Atlantic Coast (Baltimore, Philadelphia, New Haven, Hartford, Boston) and on the Pacific

Coast (Seattle, San Francisco). Because of the liquidity crunch in the U.S., several middle-sized projects cannot be financed and Canadian architects and developers, working in partnership with a U.S. developer, could join their resources to carry on these projects.

Remodelling and building materials and products

As described above, remodelling was in 1990 a \$107 billion business. Among the 106.3 million housing units of the nation, 47 million units are now over 30 years old. The West and the Northeast regions have the most intensive remodelling activities. The Canadian Consulate General in Boston identified promising market opportunities for Canadian building materials & hardware (BMH) companies in the New England market of 10 million population, especially for the home repair, refurbishment and do-it-yourself remodelling market. Homes in New England are older than those elsewhere and since New England is a border area, there is no prejudice against Canadian products. Numerous opportunities for Building Materials and Hardware may also be found in other regions. About 60 to 70% of Canadian BMH products imported are duty-free, import duties being about 1% for the rest (except lumber) with a maximum possible duty of 4.2%.

R-2000 technology and products

R-2000 technology and products could take advantage of several factors: geographic climatic diversity resulting in demands for technology responsive to both heating and air conditioning needs, increasing energy costs as a result of President Clinton's proposal for a tax on B.T.U. usage and a general renewal of awareness of the importance of energy efficiency in new housing.

Lumber

The environmental movement to protect old-growth forests in the U.S.A. has curtailed the available timber harvest to such an extent that prices have increased sharply and there is a supply problem. A 6.51% tariff on Canadian lumber was imposed in May 1992 but discussions are in progress to revert this. The final decision should be known in May or June 1993.

3.2 THE HOUSING MARKET IN THE UNITED STATES OF MEXICO KEY ELEMENTS AND POTENTIAL EXPORT LEADS

Up to now, Canada's export of construction materials and services to Mexico has been minimal with total exports of CDN\$ 21.6 million in 1991. Two factors make the Mexican market a promising one. First, the North American Free Trade Agreement will ensure that tariffs drop dramatically over a period of years. Second, the current strategy of the Mexican Government, supported by the World Bank, is to create a more supportive environment in which the private sector can play an expanded role in solving the country's housing problems. This should encourage the Mexican construction industry and also facilitate opportunities for Canadian companies to become partners in that process.

Mexico's market is highly competitive, but Canadian companies can do well by maintaining an active presence in the market and by establishing a good track record based on product performance, competitive price and support. Sales in Mexico are usually made through local agents and distributors, normally operating on a commission basis, or through the Mexican affiliates of foreign companies. The Canadian companies have to decide whether to use an agent or to make joint venture or licensing agreements with a Mexican partner. Due to the complexity of construction regulations, financial practices in this industry and labour relations, many foreign firms have selected the option of joint ventures as the best way to penetrate the Mexican market.

Technical seminars are an appropriate means to promote Canadian materials, services, and technologies for the housing industry. The use of well-trained salesmen with technical knowledge, the ability to communicate in Spanish, as well as a strong support system for the customer are important.

3.2.1 General Overview

The year 1992 has been a successful year with a GDP annual growth of 5.5%, and 1993 is projected to be as good as 1992. Inflation has been under control as well as the national debt, which fell to 6% of GNP. The success of privatization was even greater than expected and total investment rose to \$25 billion. Government's increased business orientation, specifically in regard to international trade and privatization policy (only 280 government companies were remaining at the end of 1991, compared with 1156 in 1982) paid off. Thanks to privatization money, \$3.8 billion in investments have been directed to infrastructure, services and housing through a national solidarity program (Pronasol). Figures refer to \$US.

GDP	\$382 billion
GDP per head	\$4,186
Population	91.3 million +2% density: 45 inhab. per km ²
GDP growth	1992: 5.5% 1993: 5.5%
Inflation	1992: 16.4% 1993: 10.2%

Source: "The world in 1993" *The Globe & Mail* and *The Economist*

3.2.2 Housing Background

Housing starts and needs

Over the past decade, Mexico's total investment in housing has averaged about 3% of GDP which is comparable to other countries at a similar stage of development. However, this has not been sufficient to prevent the housing deficit from reaching an estimated 6 million units. This is about 40% of the 15 million existing units. According to government estimates, based on the number of overcrowded units (those with more than 2.5 persons per room), 35% of Mexico's population lacks adequate housing. The greatest housing deficits are in urban cities such as Mexico City (about 3 million new houses are required), Guadalajara, Monterrey and in the northern states.

Over the next four years, an estimated 980,000 new units will be required annually only to prevent the housing shortage from increasing. New family formations account for about 80% of this need, the remaining 20% reflect the need to replace old substandard housing. The population of Mexico is expected to reach 104 million persons by the year 2000 with a 45% increase in the 20 to 49 age brackets. Since government estimates indicate that during the 1992-95 period, 75% of the newly-formed families will earn less than minimum wages, most of the demand will be for low-income housing.

About 67% of Mexico's housing units are owner-occupied, the remaining 33% being rented. Private investment in rental housing declined during the 1980's because of macroeconomic conditions, scarcity of long-term mortgage financing and unfavourable fiscal policies.

While total housing production has grown steadily from about 500,000 units in 1985 to about 675,000 units in 1991, it is still insufficient to meet the needs. Furthermore, 50% of housing production is by the informal and self-help housing sector (often in the form of "barrios"), without access to formal credit, generally of poor quality, often located on illegal land and lacking basic public services. With the decline in inflation and interest rates and the growth of real incomes, the formal sector is expected to broaden its coverage to finance more developers and homebuyers. For those who do not qualify for such financing, the Mexican Government proposes to channel additional funds for low-cost housing solutions through public housing agencies.

Investment in housing

Private investment	1990 units	1991 units	1990 value \$m US	1991 value \$m US
Single family	77,100	82,500	5,356	6,333
- luxury	2,100	2,500		
- middle	27,000	29,000		
- social	48,000	51,000		
Multiple family	67,800	75,400	2,150	2,620
- luxury	1,600	1,600		
- middle	13,200	13,800		
- social	53,000	60,000		
Selfconstruction	330,000	360,000	1,300	1,800
- suburban	180,000	200,000		
- rural	150,000	160,000		
Remodelling and maintenance	585,000	601,000	810	985
- luxury	15,000	16,000		
- middle	110,000	115,000		
- social	460,000	470,000		

Source: Mexico Secretariat for Programming and budgeting

The average price of a unit in 1991 was:

- * \$76,760 for a single family unit
- * \$34,750 for a multiple family unit
- * \$5,000 for a self constructed unit

In 1991, public investment in housing was \$140 million i.e. 2% of the public investment in construction activities (\$7 billion). Total residential construction accounted for 64% of the total construction value in 1991. About one half of that amount corresponds to middle class residences, in particular private homes, followed by social housing.

Materials commonly used

According to data from the 1980 census, the materials most commonly used in the construction of the 12 million private homes included in the census were as follows:

On floors:

- | | | |
|---|--------------------------|-----|
| * | Cement or concrete | 46% |
| * | Earth | 26% |
| * | Mosaic & other coverings | 26% |
| * | Non specified floors | 2% |

On roofs:

- | | | |
|---|---------------------------|-----|
| * | Concrete or bricks | 44% |
| * | Metal and asbestos sheets | 17% |
| * | Tiles | 13% |
| * | Cardboard | 12% |
| * | Palm or wood | 10% |
| * | Other | 4% |

On walls:

- | | | |
|---|--------------------------|-----|
| * | Bricks and block | 57% |
| * | Adobe | 21% |
| * | Wood | 9% |
| * | Mud | 4% |
| * | Palm or bamboo | 3% |
| * | Cardboard | 2% |
| * | Metal or asbestos sheets | 1% |
| * | Other | 3% |

Housing Finance System

Mexico's housing finance system is segmented into 3 institutional groups, each with its own operational procedures, financial instruments and eligible beneficiaries: Commercial banks, whose own funding is complemented by resources from the Fondo de Operacion y Financiamiento Bancario a la Vivienda (FOVI), a special trust fund of the Central Bank which is the largest single source of mortgage credit. Several quasi-public pension funds form the second major source of mortgage financing. The third and smallest providers of mortgage credit are the public housing agencies which operate with government transfers at the federal, state and local levels. In 1991, this housing finance system financed an estimated 348,000 units with an investment equivalent to \$5.4 billion.

In 1984, the Central Bank developed the use of a new "dual rate" mortgage instrument, designed to make mortgage lending more attractive in an inflationary environment. This "dual rate" mortgage instrument allows banks to charge a market-determined rate of interest, but ties the borrower's payments to adjustments in the minimum wage, so that these payments remain in step with most borrower's incomes. If, because of a difference between the adjustments in the minimum wage and in the interest rate charged, the borrower's payments do not cover the interest and principal due, then the difference is capitalized and the loan term is extended.

The Government periodically revises the minimum wage and therefore, it acts more as a wage index for unskilled labour than as a rigid floor price. However this revision occurs now only once a year, and the official minimum wage has been losing its correlation to real market wages, resulting in large and unintended subsidies, thereby reducing the public sector's ability to respond adequately to future housing finance needs.

	Banks	FOVI	Pension funds	Public agencies
Lending share	53%	7%	28%	12%
Typical cost of housing unit (US\$)	\$18,000 & up	\$10-20,000	\$10-20,000	\$2-10,000
Monthly income *	above 5 M.W.	below 5 M.W.	below 5 M.W.	below 2.5 M.W.

Source: World Bank

* The monthly income of beneficiary groups is expressed as a multiple of minimal wage (\$300 per month).

3.2.3 The Mexican Housing Industry

Mexico's construction industry is highly developed and capable of carrying out works efficiently and at relatively low costs. With the recent improvement in Mexico's economic conditions, the construction industry is beginning to emerge from a serious slump that has lasted nearly a decade. The home building industry is an important subsector within the Mexican economy because of its size and its high employment generation potential.

While there are about 18,000 construction companies registered with the National Chamber for the Construction Industry (Camara Nacional de la Industria de la Construcción - CNIC), 90.9% are small firms, responsible for 39.7% of the total production, 7% are medium sized firms (15% of the total production) and 2.1% are large and very large firms responsible for 45.3% of the total production. The majority of new housing projects are built by 500 or so large and medium-size developers spread throughout the country.

New housing projects are initiated mostly by private home builders who construct and sell houses in the market at their own risk. Commercial banks are partners in this process by providing construction financing, and upon housing completion and sale, by providing mortgages to individual buyers. The planning, construction and selling cycle normally takes about one and a half years.

Due to Mexico's rapid population growth, unskilled and semiskilled labour is available throughout the nation and can be upgraded through adequate training programs. Skilled technical and professional personnel are also available.

3.2.4 The Mexican Construction Environment

Standards and regulations

One important issue is the overregulation of housing in Mexico. There are many regulations and requirements associated with home building and development that add unnecessary costs to housing. Regulatory burdens are reflected in over fifty different licenses, permits and service charges issued by local governments, banks and notaries to builders. Unnecessary high building standards for water and electricity utility connections, excessively large minimum lot size and arbitrary development costs also drive up housing costs. Furthermore, builders and homebuyers incur other unnecessary indirect costs, as local governments are often slow in processing and approving development plans, construction licenses and permits.

For the past five years, SEDUE has assisted municipalities throughout the country to establish the *ventanilla unica*, a single municipal office responsible for reviewing and approving developer's housing projects and simplifying the process of obtaining construction permits and licenses. In mid 1992, about 40 cities had set up a *ventanilla unica* and more are expected to do so. To encourage states to reform inappropriate standards and regulations, FOVI has begun signing agreements with states which set out specific targets for reasonable building standards, establish time limits for approving permits and licenses, and provide a schedule to lower overall bureaucratic costs. As of May 1992, FOVI had signed such agreements with 11 states and was negotiating agreements with the remaining 20 states and the Federal District.

There are no official metric requirements applicable to imports. However, since the metric system is the official standard of weights and measures, importers will usually require metric labelling for packaged goods. Imported products should be labelled in Spanish with some information. Mexico adheres to the International System of Units. Electric power is 60 cycles with normal voltage being 110, 220 and 400. Three phase and single phase 230 volt current is also available.

Other issues

Another issue is the scarcity of reasonably-priced land available for development. This is constraining the production of affordable housing in Mexico. Urban land prices are unnecessarily high for a number of reasons. First, many Mexican cities are surrounded by *ejido* properties which have ceased to function as farms, but cannot be converted to urban use without a lengthy and unwieldy expropriation process. Furthermore, due mainly to constraints on public expenditures, neither the national nor local governments have yet established effective programs for financing the provision of primary infrastructure (water and sewerage networks) on lands suitable for housing development. As a result, SEDUE estimates that about 260,000 new units could be constructed on the existing territorial reserves, meeting the housing needs of more than a million people. The Federal Government has recently initiated a number of measures to address these constraints.

The Mexican construction industry is suffering from a lack of housing sector information. A competitive housing market requires that market actors have access to relevant, timely, and reliable information. At present, neither the Government nor private firms collect significant information about housing market conditions in Mexico. Moreover, what information is available is often inaccurate, incomplete or inconsistent. This lack of data seriously constrains the further development of Mexico's housing finance and production sectors both in terms of efficiency and effectiveness.

3.2.5 Opportunities for Canadian firms

Canadian and foreign presence in Mexico

Currently, Canada's export of construction materials and services is minimal with total exports to Mexico of CDN\$21.6 million, but increasing for the past three years. However, asbestos alone accounts for about 75% of total exports. U.S. companies are by far the main foreign suppliers in Mexico with Japan coming as a distant second followed by Germany, France, Italy and Spain.

NAFTA

With the North American Free Trade Agreement, tariffs are going to drop dramatically over a period of years and materials, products and services for the housing industry will be less costly for Mexican companies to import. Approximately 95% of all tariff items are now exempt from the prior import license requirement and the government has eliminated the uniform general import tax of 5% imposed in 1987.

Export leads

Canadian companies seem fully capable of seizing significant opportunities in the Mexican market, be it building products and materials, turnkey projects, panelized homes... or joint ventures and alliances in the service side of the industry.

In 1990, total Mexican imports of building products and materials reached \$514 million, a 67% increase from 1989, and this is expected to further grow to reach about \$800 million by 1994. The domestic industry, where production is insufficient and variable in terms of both quality and availability, seems to be unable to respond to this growing demand and import opportunities are therefore numerous. The areas that are perceived as representing the best opportunities for foreign suppliers are:

- * products related to decoration and finishing (hardware, locks and padlocks, wall, roof and floor coverings, sanitary articles and lighting fixtures);
- * fabricated materials where domestic production is insufficient (structural iron and steel products, bricks, asbestos, wood and wood products, electric fixtures).

3.3 THE JAPAN HOUSING MARKET KEY ELEMENTS AND POTENTIAL EXPORT LEADS

Japan covers an area of around 380,000 square kilometres, about 98% of which consists of the four main islands of Hokkaido, Honshu (the main island), Shikoku and Kyushu. 75% of the population lives in urban areas. Approximately 25% of the total population lives within a 50 km radius of the center of Tokyo which has resulted in the creation of a megalopolis: an irregular mixture of rural and urban landscapes. By the end of the century, the proportion of people aged over 65 will be nearly 20% of the total population.

There are real opportunities for Canadian companies in Japan: 2X4 wood frame houses, prefabricated houses and high quality building materials and hardware. There are also niches, such as those suitable for R-2000 houses and products (windows and doors, ventilation systems), in the northern part of Japan. As for high-rise construction activities, they are undertaken by the giant Japanese companies and seem therefore an almost impossible market to penetrate.

Costs to do business in Japan are very high. It requires a long term commitment, at least a couple of years, before being able to earn money. However Japan offers a great potential and real opportunities, either in doing business locally or in shipping wood frame structures, panelized houses or building materials from Canada. A Canadian firm willing to succeed in Japan has to build a bridge somehow to start with and has to prove its capabilities. A proven way is to set up a joint venture or a strategic alliance with a Japanese partner. It is important to develop close ties with the Japanese to do business with them. A local presence or frequent trips to Japan are normally necessary and the ability to do business in Japanese and Japanese business cards are also strongly recommended.

3.3.1 General Overview

The Japanese economic performance since the Second World War is a well-known fact. So are the explanations of this success: the application of strategic and coordinated planning to both public and private sectors; restrictions on competition between domestic firms; effective use of standards for competitive purpose; controls on imports; the availability of capital to firms at low rates and a strong system of interdependent business linkages (kinetsu) which tie together its industrial, financial and service sectors and allow companies to place great emphasis on long-term objectives.

However for three years, Japan has seemed on the brink of recession and as the situation worsened in mid 1992, a growing number of well-known companies announced not merely falls in profit but losses. Property prices also fell. From prudent savers in the 1970s, the Japanese began to borrow and spend in the late 1980s. By 1990, their household debt had risen to 117% of their annual income, well above U.S.'s 103%. Despite the Japanese's government \$86 billion rescue package, the recession is foreseen to in 1993.

Key figures (\$US)

GDP	\$4 trn
GDP per head	\$32,018
Population	125 million +0.4% density: 333 inhab. per km ²
GDP growth	1992: 1.9% 1993: 3.4%
Inflation	1992: 2.1% 1993: 2.2%
Unemployment	2-3% but underemployment

Source: "The world in 1993" The Globe & Mail and The Economist

3.3.2 Housing Background

City centers are densely populated. When moving out of the city, one usually encounters large scale residential estates in the form of blocks of flats. Between them are groups of densely packed, small, two-storey houses. Industrial and commercial buildings are mixed apparently haphazardly with the residential areas. Further, small agricultural fields may be encompassed by buildings or a few buildings may be surrounded by fields: there is no obvious boundary between urban and rural, rather it is all suburban sprawl with each major city running into the next. In these areas, homes are small and crowded closely together.

Japanese homes are mainly detached two storey houses which are extremely close together. They are very small: a four person house is generally about 50 sq.m. to 90 sq.m.. Housing is very expensive, reflecting high land costs. Building costs for two storey houses are typically only 40 to 50% of the land costs (\$1,500 to \$2,500 per sq.m. in provincial towns and in suburbs). Most Japanese homes are timber frame and are finished internally to high standards.

The technology used in Japanese buildings and in the construction and management methods is little different from normal western practice. If anything, it is somewhat less highly industrialized and relies more on site cutting, fitting and other type of hand-working making Japanese construction costs generally higher.

Housing starts

	1988	1989
Total new housing units	1,685,000	1,632,000
High rise building units	727,300	681,000
Wooden houses units (single or multi family)	697,000	710,000
Non-traditional housing		
Prefabs	218,700	202,200
2X4	42,000	38,800
Home renovation	150,000	140,000

Source: Japan Ministry of Construction

There is still a preference prevailing for traditionally-built (post-and-beam method) wooden houses made of Japanese cypress even though it is expensive. However, this preference is diminishing to the benefit of fire-resistant prefabricated units. Moreover, the traditionally-built house has become too expensive for the average homebuyer.

The construction of prefabricated houses is well established and accounts for 12 to 14% of total housing starts. Of the nearly 220,000 prefab units built in 1988, 27% were made of wood, 63% of steel and 10% of concrete.

The 2X4 building system has been steadily gaining popularity in part because of the joint efforts of the Canadian Trade Commission and Canadian companies. 2X4 systems now account for more than 40,000 units a year and represent a high-growth potential segment for Canadian companies.

Home renovation is also significant and could also present opportunities for Canadian manufacturers of building materials and hardware.

3.3.3 The Japan Housing Industry

Structure

Japan's construction industry produces 16% of the country's massive GNP, making it as large as the construction industry of the USA or the EEC. There are 515,000 licensed construction firms which employ approximately 5.4 million person (9.4% of the total working population). This includes both specialist and general contractors. There is a high proportion of small firms and individuals, acting mainly as specialty subcontractors and, at the other extreme, there is a small number of large general contractors.

The so-called Big Six Japanese construction firms (annual turnover of about \$4 billion, about 10,000 professional construction employees) provide a comprehensive range of construction services in building, civil and heavy engineering. They can find construction sites for clients, help find the finance and then design, construct and maintain high quality buildings.

As for prefabricated houses, a few companies account for more than 80% of all prefab starts.

Organization

Once appointed, construction firms establish effective construction management procedures to create a controlled, predictable working environment. Construction is carried out by specialist contractors on the basis of fixed lump sum contracts linked to the overall construction schedule. Specialist contractors fall into two categories: some are the installation arms of the major electrical, mechanical and equipment manufacturing companies, the others are the independent contractors ranging in size from the small to the large firms. Nearly all building work in Japan is undertaken by the specialist contractors. Major plant and equipment needs are usually leased from a plant hire company. Materials and components are purchased directly or through a general trading company.

3.3.4 The Japanese Construction Environment

Contracting

A variety of standard forms of contracts are used for privately and publicly funded construction work. The general conditions frequently used on privately funded projects are prepared jointly by the Architectural Institute of Japan, the Architectural Association of Japan, the Japan Architects Association and the Associated General Contractors of Japan. Contracts are not solely governed by the terms and conditions set out in the contract. There is also a Confucian sense of social obligation: it is important for both parties to sustain the good and long term relationship between them.

Construction contracts are essentially based on a fixed lump sum and a fixed completion date in return for competent work and a good quality building. Cost is dealt with in a particularly Japanese way: if a construction firm has performed well but has incurred extra costs, a revision to the contract price can be negotiated with the client at the senior management level.

The guarantee period for defects is 2 years for a brick or concrete building and 1 year for a wood structure. If defects are found to have been caused by negligence on the part of the contractor the 2 year guarantee becomes 10 years and the 1 year one becomes 5 years.

Standards

Project specifications generally make extensive use of standard specifications published by various bodies in Japan. The most widely used standard specification is that issued by the Japanese Institute of Architecture; the Japan Architecture Standard Specification (JASS), published in 20 comprehensive volumes. JASS 5, for example, covers reinforced concrete and runs to some 640 pages. The Japan Architectural Association publishes a less detailed standard, more suitable for smaller projects.

Licensing

Construction companies participating in the Japanese construction market must obtain a license as a builder under the Construction Contractor's Law. There are two types of license: the license given by the Ministry of Construction is for companies which have business establishments in more than one prefecture, and the license given by the governor of a prefecture is for companies with a business establishment in only one prefecture. The license is effective for three years and must be renewed.

As of October 1991, among the approximately 9,000 companies which obtained licenses from the Minister of Construction, 68 i.e. 0.8% were foreign companies, of which 33 were U.S. companies.

3.3.5 Opportunities for Canadian Firms

Past experience

Canadian presence in Japan started about 20 years ago. The goal was then to develop a market for 2X4 construction, which has been successful. There is now considerable work being done in Japan by the Canadian authorities and private companies to promote Canadian housing and construction technologies (seminars, lobbying on the building code to promote wood construction, etc...). There is indeed a need for a market presence to put Canada on the map in Japan.

Barriers

The Japanese marketplace is protected from incursion by non Japanese competitors through a range of cultural and bureaucratic barriers that inhibit the ability of external companies to compete in the Japanese market. Foreign direct investment in Japan must be approved in advance and foreign equity holdings are restricted in industries considered to be of "strategic" importance which is a potentially very wide definition.

Export leads

2X4 houses

Good opportunities for Canadian companies exist in the building of 2X4 houses, because of Canadian know how and lower costs. This part of the Japanese industry is said to be open-minded and willing to work with Canadian companies. To carry on projects successfully, Canadian companies should normally include the labour work (Canadian) in their contract since Japanese workers are not familiar with this way of building. Three month working visas can be obtained, especially for young workers, enabling the Canadian companies to build 2X4 houses or to teach Japanese how to do it. The building code has been changed to allow the construction of 2 storey wood buildings in non-fire rated zones. There are also opportunities to build 3 storey wood buildings in some downtown areas to maintain the low-rise character of these areas. Canadian companies should also consider the resort villages market.

Prefabricated houses

Prefabricated houses are benefiting from competitive price, high quality standards (fire and earthquake protection) and the labour shortage. They are especially adapted to dense urban centres where substandard houses are being replaced (minimum of on-site labour, no problem due to the lack of space for storage of materials). Some difficulties can be experienced because the required dimensions may differ from the Canadian ones. According to Statistics Canada, exports of Canadian manufactured and log houses to Japan were CDN\$39 million in 1991.

R-2000 technology and products

R-2000 houses and insulated doors and windows offer good possibilities in the northern part of Japan (Hokkaido, five million people) because of the colder climate. Since May 1990, there has existed a royalty-free licensing agreement between EMR Canada and the Japan 2X4 Home Builders Association to license to them the use of the R-2000 technology, training materials, software and trademark. This agreement favours the image of Canadian housing component products since it requires all houses built under this program to display the Canadian R-2000 logo, the use of which is not allowed for building products made in Japan.

Building materials and hardware

Many Japanese companies are looking for exclusive products and technologies and this represents opportunities for Canadian companies. Due to the growth in the demand for western style housing and the decrease in the domestic forest resources, there is a significant opportunity for Canadian manufacturers of quality building materials and hardware (millwork products, windows, doors ...). Imports of major construction materials were 936 billion yen in 1985 and rose to 1,475 billion yen in 1990. Construction materials that are imported on a large scale include:

- * in the wood category: timber, sawn timber and plywood, millwork, especially wood floors
- * in the ceramics category: monument and building stone and granite
- * in the metal category: iron and aluminum structures

The adoption of building materials is decided by three parties: owner, designer and construction company. Major general contractors and major design companies have catalogues of foreign building materials.

Design services

The opening of the Japanese market has been moving forward in recent years and the structures designed by overseas designers are increasing. The strength of the yen since the mid 1980's has made it economically viable to use overseas designers. Canadian companies with excellent technology and know how in design and consultation, especially in resort or urban development, could find substantial opportunities in Japan.

3.4 THE GERMAN HOUSING MARKET KEY ELEMENTS AND EXPORT LEADS

The German market, especially the former East Germany, presents real opportunities because of the accumulated shortage (1.7 million units in the West and 1 million units in the East) resulting in huge needs for new housing units (500,000 units annually required in the West, 100,000 in the East). In the West, the crisis is mainly in social housing in big cities. In the East, there is a strong need both for new units and for renovation due to the disastrous state of housing conditions. The crisis in the former East Germany is much deeper than in West Germany: relative needs are larger and urgently required and financial capabilities are lower. West German companies seem to be unable to meet these needs because they lack the capacity to do so and because their way of building (concrete houses) results in long delays and in high costs.

Opportunities are mainly in the delivery of wood frame structures for houses up to 3 storeys and housing components (windows, doors, kitchens etc...). The main competitive opportunity for the Canadian housing industry, especially in the former East Germany, seems to be its ability to offer affordable and quick housing solutions. There are also good opportunities for custom designed high quality timber frame houses in West Germany. As for multiple storey buildings, it appears to be a "chasse gardée" of the major German building companies and a very difficult market to penetrate for the Canadian companies.

In doing business in Germany, it is important to have a local presence and representatives with German language skills. Given the fact that contractors are operating on a highly localized level, Canadian firms have to be prepared to undertake joint projects with German partners who know the rules, the local situation in respect of planning, the availability of labour etc... and are able to obtain more cooperation from the local authorities. The German partner will benefit from the know how, the management expertise and the ability to put together a financial package with its Canadian partner. In the new states, the ability to finance a project is practically non-existent.

According to the Canadian trade officials in Germany, a visit to one of the large international German building fairs combined with a trip to a permanent model home show (in Frankfurt, 70 leading German prefab home builders have representatives on such a site) would be a good way to start collecting information and establishing initial contacts. Discussions on possible supplies of Canadian components and exchange of technical know-how may be the first step towards a partnership.

3.4.1 General Overview

In 1992, the GDP of the former Communist East Germany was down to one half of the 1989 level and industrial production was at just one third. More than 4 million jobs have gone since the October 1990 reunification yet productivity is still only at one third of the Western German level. However, the growth rate of GDP in Eastern Germany is estimated at 7% with \$75 billion in investments projected for 1993. Self-sustained economic growth should get under way in 1993 despite the continuation of government approval or licensing procedures for private investment projects. Another obstacle is uncertainty over unresolved property rights. The best sign of how well the adjustment process is going however, can be seen in the Treuhand, German's privatization agency: out of 12,000 industrial firms, 10,000 had been privatized by the end of 1992.

Key figures (US \$)

GDP	\$3.16 trn
GDP per head	\$24,120
Population	80.9 million +0.3% density: 222 inhab. per km ²
GDP growth	1992: 1.2% 1993: 1.8%
Inflation	1992: 4.6% 1993: 4%
Unemployment	4.3% (West Germany only)

Source: "The world in 1993" *The Globe & Mail* and *The Economist*

3.4.2 Housing Background

In 1988, in West Germany only, the construction output was \$180 billion representing 12.3% of GNP which constituted over one quarter of the total EC market. Construction activities were as follows:

*	new housing:	20%
*	repair and refurbishment:	42%
*	private nonresidential:	17%
*	civil engineering:	16%
*	public nonresidential:	5%

The number of housing units was 26,598,000 in the West and 7,017,000 in the East, and the living area per person was 37 m² in the West and 26 m² in the East. The objective of the Ministry of Housing is to increase the living area per person in the East to the western level i.e. 11 m² more per person for 16,434,000 persons that is 181 million m² in total.

New construction

(in units)	West	East	Total
1,990	260,000	62,000	320,000
1,991	289,000	25,000	314,000
1992 (proj.)	N.A.	N.A.	380,000
1993 (proj.)	N.A.	N.A.	400,000

Source: DIW (German Institute for Economics)

New units built in 1974 were 700,000 units; however the outlook is more encouraging because of the huge needs.

Compared to Canada, a much higher percentage of Germans live in apartment blocks comprising not only low and moderate income, but also middle-class and upper middle-class households. In 1990, among the 260,000 units built in West Germany:

- * 127,000 were single family homes
- * 94,000 were in apartment blocks
- * 35,000 were built in non-residential structures (conversion of offices into apartments)

Huge housing needs

In the 1980's, refugees from around the world arrived in West Germany in ever increasing number (up to 500,000 a year). After the opening of the East German border, East Germans flooded into West Germany and there are still numerous East Germans coming to West Germany.

Estimated needs for units are:

	Accumulated shortage	Annual requirement
West	1.7 million	500,000
East	1.0 million	100,000 and up

In the West, the crisis is mainly in social housing for big cities. In the East, there is a strong need both for renovation and new units. The renovation of the existing units in the former East Germany will remain the priority in 1993 due to the disastrous state of housing conditions, but new construction will not be neglected. Through an ambitious DM 2 billion program, 60% of which is for the former East Germany alone, the federal government is intending to build 130,000 social units in 1993. The German government endeavoured to liberalize the housing market in order to improve supply conditions. A new debate has been launched in view of the high rents of new flats and houses, especially given that the stock of dwellings is lower than was previously thought. The reunification with East Germany is exacerbating this situation. However, the action of the federal government is restricted since the regulatory authority resides largely with the local authorities.

Building systems

The dominant building method in Germany is stone/concrete construction. Less than 10% of single family homes are built using a German version of timber frame construction. Low cost timber frame construction still faces a problem of quality perception despite improved design and quality. However, the most successful timber frame house company in Germany builds the most expensive houses (average project value of DM400,000). For 5 years now, a group of traditional wood house builders using the Canadian timber frame system with some minor changes has had growing success with custom designed high quality houses, relying upon architectural flexibility and hand crafted perfection in regions with an historical high acceptance for wood houses.

Financing

A house buyer must save for some years before having the necessary capital because only small loans are available. The financial package for a typical house purchase would incorporate, in approximately equal portions:

- * cash
- * a medium term (12 years, fixed rate) loan from a Bausparkassen (housing loan society)
- * a long term (up to 30 years, fixed rate for the first 5-10 years) loan from a bank

Other simpler methods are progressively being introduced.

Main characteristics of the German housing market:

- * High average price: the German client demands, and is used to getting, high quality in housing and special requirements (e.g. basements, especially in South Germany); the absence of large home builders may also be a contributing factor; according to some estimates, the average first-time home buyer in Germany is 40 years old and the average price is DM 300,000 for a 3 bedroom house.
- * Ownership structure: owner occupation is less common than in other European countries with more rental housing: there are pronounced regional differences.
- * Importance of flats: Flats represent 50% of all new units constructed in recent years; however with rising real incomes, relatively low mortgage rates and static prices, the proportion of single family homes is expected to grow;
- * Stability of occupancy: a home owner moves an average of once every 28 years.

3.4.3 The German Housing Industry

The German industry is divided into two groups:

- * the major contractors in building and civil engineering (Bauhauptgewerbe), who are heavily dependent on public sector expenditure;
- * smaller contractors and subcontractors (Ausbaugewerbe): as a consequence of the local authority pattern prevailing, the industry is dominated by family-owned firms. These are cautious and have been weakened through the declining market of recent years. According to trade publications, "there are thousands of small family owned firms waiting for an offer they can not refuse". Their share of the housing market is about 90%.

The construction industry is widely spread throughout the country given the considerable degree of autonomy of the states and the absence of a major national capital. In the five new federal states, new construction companies are emerging but they lack the drive, management know how and financial resources to become effective.

The substantial majority of projects are relatively small in size and value and are constructed using a traditional trade contract system: the client enters into a separate contract with a specialized firm for each task. This can mean a lot of independent contracts on even a simple project.

The German housing industry is particularly well-educated and trained both at the professional and at the craft level. The architect, the engineer, the site manager and even the craftsmen all come from the same general background of education and training, reflecting the strong German commitment to highly skilled technical activities. Each can talk to the others and understand the others' technical problems. This policy is financed almost entirely by the industry itself.

Strengths	Weaknesses
<p>high quality of construction work</p> <p>reliable and skilled labour</p> <p>development of new technologies</p> <p>high quality engineered products</p> <p>experience of privately rented housing</p>	<p>diminution of skilled craftsmen, with fewer apprentices entering the industry</p> <p>cost control procedures particularly in the precontract stages</p> <p>rather poor creativity (architects)</p>

Developers

There is a shortage in lands to develop and their prices have raised sharply (+10.8% in 1991, even more in big cities). A new federal law is scheduled for 1993 in order to favour an increased supply of new lands for development. But being a local business by nature, development in foreign countries is always difficult and that is especially true in Germany; furthermore there are very stringent laws for tenants' protection in Germany.

Architects

In 1987, in West Germany only, there were 60,000 architects working for 18,000 firms, 2,500 interior designers and 2,000 landscape architects. Practices are generally small. The dominant professional role is that of the architect who is responsible for coordination, cost and program control as well as design. But architects are known to boost construction costs and consequently an increasing number of building companies are offering "in-house" service. This represents an opportunity for the Canadian wood frame structures.

Contractors

There are only 7 German companies in the top 50 European contractors. Indeed, as a consequence of the local authority pattern, building contractors tend, with the exception of the biggest, to concentrate their activities within the *Land* (States) or even within the commune. The majority of them are small, their activities tend to be highly localized and they are mainly selling off-plan. They rarely assume the development risk. There are two well-known German companies offering wood frame structures, Kampa and Weber, but they are mainly offering luxury houses which are almost as costly as concrete houses.

3.4.4 The Construction Environment in Germany

There are as many different Germany's as *Länders* (11 for the former West Germany plus 5 for the former East Germany). Each *Land* makes its own interpretation of the federal rules for the basic rights of the individual, thus in housing issues. Furthermore, each *Land* is divided into communes (*Gemeinden*); there are 8,500 communes and each is a corporate entity which makes decisions at the first local, especially in building, town planning, local facilities etc... Germany has therefore many laws, regulations and standards to indicate what criteria must be met in order that a product will satisfy the client. These are often described as barriers to trade. German consumers demand high standards and, within the construction industry, quality assurance is to a large degree achieved by self regulation through comprehensive products standards (DIN) and tradition.

Only two professions are recognized in the German construction industry: architects and engineers. Only a registered architect or engineer may apply for, and be granted, a building permit. Their fee scales are defined in the law and fee competition does not exist. Even craftsmen must have passed appropriate tests to be registered.

General approvals of new building products ("Zulassungen") are issued by IfBt (Institut für Bautechnik) and are granted for a period of not more than 5 years. An approval certificate carries a full specification of the product, including such matters as permissible loading, procedures for assembly and installation etc... Before issuing a *Zulassung*, IfBt may require initial testing. As soon as the design of a house has been approved, it is then possible to build as many of them as possible. German standards are high but Canadian companies are able to cope with them. A house plan designed in accordance with CMHC standards can obtain a building permit in Germany, provided that the structural calculations required are made by an approved building engineer.

3.4.5 Opportunities for Canadian Firms

Past experience

In the past, major Canadian efforts in the past to enter the German market failed due to a multitude of minor problems resulting from the absence of a local presence. But some Canadian companies followed the right path, either through joint ventures or strategic alliances, and they are having success.

Main barriers

Despite being by far the largest construction market in Europe, there has been little penetration by foreign contractors. Experience has shown that the challenge for a Canadian firm trying to penetrate the German market is not mainly of a technical nature, since the Canadian know-how in wood frame structure is good and well-known. But there are numerous difficulties such as: how to get affordable land, how to understand and satisfy customer needs, how to arrange financing, how to subcontract work economically. More generally, there are several barriers to the German market:

- * a system highly regulated both formally, socially and by self-imposed standards
- * national pride which tends to view the "German label" at best
- * a domestic scene which is very difficult to penetrate

Export leads

The German market presents real opportunities because of the accumulated shortage (1.7 million units in the West and 1 million units in the East) resulting in huge needs for new housing units (500,000 units annually required in the West, 100,000 in the East). As a result of reunification, 20% or 1.4 million Eastern families are now earning more than DM 4,000 per month and are therefore estimated to be able to afford to buy a house or an apartment. In the five new states, the best potential is seen in the state of Saxony (4.8 million people), the state of Brandenburg (2.6 million people), and the City of Berlin (2.5 million people).

The main competitive edge of the Canadian housing industry in the German market is its ability to build rapidly affordable houses to meet the needs: wood frame houses, manufactured houses, log homes. There are also good opportunities for custom designed high quality timber frame houses and for building materials and hardware, especially in the do-it-yourself market. The technical characteristics of wood are well-known by German architects and engineers, and German craftsmen are fully capable of erecting a wood frame structure. For wood frame structures, Canadian companies can either manufacture them in Germany or ship them from Canada and then have them assembled locally by a German firm. In order to build timber frame houses in Germany, it is required to have a German engineer who knows Canadian timber frame methods, Canadian materials, as well as German timber frame rules and regulations.

3.5 THE SPANISH HOUSING MARKET

KEY ELEMENTS AND POTENTIAL EXPORT LEADS

Spain is one of the big five EC economies, with a large land area and population and moderate living standards. It has been a rapidly growing economy for the past decade, with large infrastructure programs (even after 1992 events: Olympic Games and Seville World Fair) and is benefiting from EC structural funds. Spain is the EC's fastest growing construction market, and is in fact still booming due to a very rapid rise in private commercial building and housing refurbishment. Construction growth rates are estimated at about 10% in general and about 5% for housing (less for new construction and more for refurbishment).

Benefiting from strong demand for both new units and refurbishment, the Spanish housing market could present good opportunities for Canadian companies, especially those with both know-how and a willingness to undertake strategic alliances with local firms. Opportunities range from luxury and California-style houses in prospering suburbs, to manufactured and wood frame houses designed to be affordable and able to be constructed quickly. It will be, however, necessary to clearly establish the advantages of wood frame structures and to make the required adaptation for the Spanish market.

The main problem in Spain is availability of financing to satisfy the need for housing, even with EC funds. There is a requirement to arrange financing for major projects. Being in a position to supply the required funds to finance a project, even a small or medium one, can provide a significant advantage entering the market. A Canadian firm wanting to enter the Spanish market would want to have a good local partner who understands the market and also knows the rules since administrative procedures to do business in Spain are very complex.

3.5.1 General Overview

Spain is very regionalized and the 17 regions have major cultural and administrative differences (differences in terms of history, geography, size, resources, culture and regional languages, economic and political power). During the past decade, the Spanish economy has made significant progress as the 1992 events (Olympic Games and Seville World Fair) have illustrated. However, despite its willingness to join Germany and France as a major actor in EC construction, Spain is still facing problems: a high unemployment level, still excessive inflation, a huge public deficit and high interest rates.

Key figures (US \$)

GDP	\$560 bn
GDP per head	\$13,600
Population	40 million +0.1% density: 29.5 inhab. per km ²
GDP growth	1992: 1.6% 1993: 1.3%
Inflation	1992: 6.4% 1993: 5.5%
Unemployment	17.5%

Source: "The world in 1993" The Globe & Mail and The Economist

3.5.2 Housing Background

In 1987, the total value of construction was \$10 billion representing 8.5% of GNP and housing accounted for 29% of it. Housing starts have declined since the 1970s from 700,000 units in 1974 to 270,000 in 1989 (400,000 according to optimistic data) and 240,000 in 1990 (SEOPAN estimates). Total construction output declined by a quarter between 1975 and 1984 but returned to 1975 levels in 1989. The consequence of over a decade's restricted output is that Spain's housing stock is rather poor and below EC standards.

The fall in housing construction in 1980 led the government to institute a support program to low and middle-income home buyers for the purchase of "officially protected housing" (VPOs: viviendas de proteccion oficial). VPO has run into problems because inflation in land and building costs have outstripped the cost limits permitted: between 1980 and 1986, over 50% of housing starts were VPO; that figure fell to 28% in 1990. VPOs are built by private developers but some local authorities also build public housing for sale on even more favourable terms. On the other hand, there is a boom in "free", i.e. unsubsidized, higher-income housing.

There is undoubtedly a serious housing shortage (estimated by the Canadian authorities at 400,000 to 500,000 units), especially of moderately priced homes, resulting in long construction delays (18 to 24 months). Housing construction activity is highly varied geographically and quite distorted by the foreign holiday homes business. According to Canadian estimates, in tourist areas, there are over 300 housing starts for every 1000 inhabitants, while in large cities, where there is a serious social need, there are less than 2 starts per 1000 inhabitants. In fact, the supply of homes is poorly matched to the needs of the population: there are more than 2 million homes classified as second homes, of which a relatively high percentage are unoccupied because they are too high-priced and too far away.

There is also much poor quality housing due to a long backlog for refurbishment in major cities. The drift of population to the major urban centres and their regions is placing a serious strain on urban housing and is also raising expectations for the standard of housing among the population; one consequence is that refurbishment is picking up.

The growth in housing demand is fuelled by:

- * an increasing number of households and increasing average incomes
- * increased expectations generated by integration into the EC
- * a growing demand for second homes on the part of prosperous Spanish families
- * a relative reduction in mortgage interest rates that peaked at 17% in 1982

There is no shortage of capacity in general but shortages of materials and labour are appearing in the growth poles of Barcelona, Madrid and Seville. In the rest of the country, there is high unemployment among construction labour and among professionals as well as excess capacity in cement, steel and basic materials.

Customer tastes

Spanish houses are traditionally built from brick and concrete. Large vestibules and hallways are not in demand; the space is preferred for the rooms (usually 5 or 6). Each room has its dedicated function, multi functional rooms are not popular (e.g kitchen-with-dining-room...). The ideal house is single family and preferably detached. If it is an apartment, preferences suggest that the block should not exceed 6 floors with no more than 15 units. Other preferences include: insulation of dampness, noise and heat, tile or parquet floors, ceramics for bathrooms and kitchens, wallpaper for walls, large windows with Persian blinds.

Financing

Financing is the main issue in Spain since the mortgage interest rates are high and the amortization periods are too short. Furthermore, the increasing demand had led to rapidly inflating land and house prices. Housing prices, overall were reported to have increased by 50 to 60% in 1987 and 35 to 40% in 1988.

Housing is mainly financed through the banks and savings banks with mortgages ranging from 70 to 80%. Qualifying families for VPOs get favourable mortgages rates (7% compared with 13.5% in the private sector in early 1989). Very low income families in addition obtain a direct personal grant. Higher income families can still get subsidized loans (at around 11% interest). Some local authorities also build public housing for sale on even more favourable terms (leasing arrangement over 25 years at around 5% interest).

3.5.3 The Spanish Housing Industry

Spain has a strong construction industry with some large firms having experience in working abroad. The Spanish industry is made up of many separate professions, all heavily overmanned. They jealously guard their privileges and seek to protect their restrictive practices; every profession has its own college or professional institution to which, by law, all professionals must belong. The law defines duties, practices and fee scales for architects and engineers. The client needs only to have a direct contractual relationship with the architect and the main contractor; all other professionals work for the architect.

Developers

Housing projects are usually launched by developers. The market has recently entered a crisis because of the substantial stock of unsold new houses. As well, a few foreign developers have entered the Spanish market during the past few years, mainly to construct tourist housing projects in popular coastal areas (Costa Brava, Costa Bianca...)

Architects

Architects are very powerful, in charge of both design and supervision of construction and responsible for the employment of engineers and other professionals. They are highly protected by their college and have a comparatively high status in society. According to some calculations, it would take 32 years of construction industry growth at 4% a year just to create employment for the existing pool of unemployed architects and architectural students.

A characteristic of Spain is the division of responsibility between architects and technical architects. It is obligatory to use an architect on most building projects. The technical architect is responsible not only for site organization, quality control and safety, but also for preparation of costed bills of quantity, measurement, cost control and general building economics advice. Architects and technical architects are battling over their respective roles and technical architects are increasingly involved in the design of small projects as the building process has increased in complexity.

Any foreign architect wishing to work in Spain must register with the appropriate college but since there is no recognized procedure for validation of foreigners, very few foreign architects have registered.

Interior designers

Interior designers also have the status of a profession with their own professional colleges. Any interior building refurbishment theoretically requires a set of approved designs and documentation and a building license from the local authority, but this is rarely complied with. Thus that there has been a proliferation of "pseudo decorators". There were 1756 registered decorators in 1987, half of them in Madrid and Barcelona while a shortage existed in the rest of the country.

Contractors

There are only a few strong firms (e.g. Dragados) that are equipped with strong financial resources. The top ten firms are responsible for about 10% of construction activity and the rest is undertaken by medium and small contractors. The Spanish banks are closely involved with both clients and contractors and have therefore a strong influence on the selection of projects and the choice of the contractor. Foreign construction firms wishing to compete in Spain need to bring along their own domestic sources of financing. Contractors have to be licensed and classified for public contracts.

Building materials

Spain has a very well developed construction materials and products industry and is a net exporter of most construction products (steel, cement, ceramic tiles and products).

3.5.4 The Spanish Construction Environment

Standards and regulations

Spanish control and regulation of the construction industry is complex. Regulations are made locally by the autonomous communities (comunidad autonomas), but in practice are still mainly based on national decrees. There are obligatory and advisory standards and regulations. Planning control is strict in urban areas and national laws limit land speculation and development in the coastal zones. The colleges of architects have key roles in building control and have to approve all plans, but building controls and enforcement procedures are ultimately the responsibility of the local authorities.

Product standards for all industries are set by the Spanish Association for the Normalization of Certification (Asociacion Espanol de Normalisacion y Certificacion - AENOR). Spanish standards cover both materials and product specifications, and testing methods. There is, in general, no legal requirement to use approved products nor import restriction on products which are not approved.

The Spanish Civil Code adopted a simple approach to construction liability with two basic principles:

- * ten-year strict liability for serious defects
- * responsibility shared between the main contractors and the architect and technical architect

In VPOs or subsidized housing, the developer has special responsibilities and must provide a 5 year guarantee covering any repairs resulting from construction defects.

Unionization

There are around a hundred unions in Spain but membership is relatively low. There are only two powerful trade unions: the General Union of Workers (Union General de Trabajadores - UGT) and the Communist Workers' Commission (Comisiones Obreras - CC.OO). Strikes have been increasing over the last years.

R&D

Among the European countries, Spain has one of the lowest percentages of investment in R&D as a percentage of GNP (0.85% in 1988). Therefore, one of the priority areas is the training and the support of researchers working in construction R&D in order to enhance the Spanish housing industry expertise. Spain could be said to be strong in low cost housing, concrete structures, timber and ceramic products, and coastal engineering.

3.5.5 Opportunities for Canadian Firms

Barriers

Spain is not an easy market to penetrate. From an administrative and cultural point of view, there are numerous barriers:

- * complexity of relationships, elaborate etiquette: a lack of knowledge of Spanish culture and language can easily lead to misunderstandings
- * complex series of registrations required by any business enterprise
- * professional and legislative constraints- protectionism in skills

- * tortuous foreign exchange procedures
- * no access to the public tenders for EC-financed projects
- * public sector is not considered to be a good customer: fees are low, payment is slow
- * few Spanish people speak English, but many speak French

Export leads

Wood frame and manufactured houses

Manufactured houses and wood frame houses present good opportunities as affordable and quick-delivery housing. Wood houses are also easier to heat and to air condition, enabling a greater comfort. Furthermore, in the agricultural-rated zones, only temporary houses are allowed in the Spanish law, and wood houses are regarded as temporary houses.

There are some barriers to be overcome at the consumer and architect level: it will be necessary to overcome a strong reluctance felt by the Spanish consumer (e.g. lack of sound isolation, preferred materials often differ from Canada). The architect is also a barrier because of a lack of knowledge of wood frame structures. There may be an opportunity to influence the Spanish building code for wood construction, since it is not already written. This could facilitate further penetration in the EC market thanks to mutual standards recognition among EC members. But the main problem to cope with is the shortage of skilled labour to build wood frame structures and it would be therefore essential to bring Canadian teams to teach Spanish workers how to build wood frame structures.

Single family and second homes

With the development of prosperous suburbs, a growing demand for luxury American-style houses is developing as well as a growing demand for second homes for prosperous Spanish families (representing about 20% of housing starts including holiday homes for foreigners). The number of homes intended for leisure time has expanded greatly in recent years. Since they are used for a day or the weekends for recreation and leisure needs, they are usually of minimal formal composition; many of them have a dining/living room and kitchen, with one or no bedrooms. However, due to the high stock of unsold second homes, especially in the coastal areas, this market seems to be less attractive for the time being.

Holiday resorts

There has been an increasing foreign demand for holiday homes on the coast due to a growing tourist industry (50 million foreigners a year). These resort projects are mainly built for tourists originating from a specific country and undertaken with the support of that country's funding, technology and labour.

The Canadian Trade Commission in Spain identified an interesting niche for a Canadian company whose light steel structure technology can alleviate a corrosion problem faced by concrete social housing structures in the Catalan region due to the humid climate.

3.6 THE HOUSING MARKET IN FRANCE: KEY ELEMENTS AND EXPORT LEADS

Despite the need for new units, the French housing industry is facing a severe crisis and the situation is not expected to improve before 1995. The construction industry lost 40,000 employees in 1992 and is expected to lose 50,000 employees in 1993. However, France is nonetheless the second housing market in Europe after Germany, and can offer good opportunities for Canadian companies with innovative products or special know-how. There seems to be a strong potential in wood frame structures since this type of houses has been rather neglected by the French industry. Rather than directly confronting French homebuilders, it is recommended to proceed through strategic agreements and joint ventures, bringing the technical expertise and benefiting from the access to the market of a French partner. Promotional actions will be required since French architects are not familiar with wood frame construction.

3.6.1 General Overview

As in many other industrialized countries in 1993, France is facing a difficult economic situation: whereas inflation appears to be substantially under control, nearly 3 million people are looking for a job and 1993 is not likely to offer any significant improvement. Furthermore, many so-called affairs, from the contaminated blood scandal to corruption problems have created a lack of confidence in the French society. As well, recent national elections have signified a change in political culture, the consequences of which are difficult to assess at this time. However, France remains a strong industrialized country as well as a leading player in the process of building the European Community, in spite of its narrow approval of the Maastricht agreement in September of 1992.

Key figures (US \$)

GDP	\$1.36 trn
GDP per head	\$23,900
Population	56.9 million +0.4% density: 103 inhab. per km ²
GDP growth	1992: 1.8% 1993: 1.9%
Inflation	1992: 2.9% 1993: 2.8%
Unemployment	10.2%

Source: *The world in 1993 - The Globe & Mail and The Economist*

3.6.2 Housing Background

Building activities in France were FF450 billion in 1991, including FF249 billion for housing:

New construction: FF117 billion:

- * FF 72 billion for single family housing comprising: 112,000 new houses including 78,000 houses built by 4,750 construction companies and 34,000 houses built by craftsmen or owners themselves
- * FF55 billion for multiple family housing

Improvement and maintenance expenses amounted to FF132 billion. The trend is for smaller new construction activities and expenses to the benefit of existing building renovation.

From 421,000 in 1988, the number of new units fell to 303,000 in 1991 (152,000 units for single family housing, 147,000 units for multiple-family housing and 4,000 social units). The number of single family units has shrunk throughout the 1980's, from 260,000 in 1980 to 152,000 in 1991, whereas the number of multiple family housing has roughly remained at the same annual level (between 120,000 and 160,000 units).

Housing needs are estimated to be 330,000 new units a year for the next five years, but new units are expected to be only 230-260,000 for 1993. The number of "sans-abris" (homeless) has reached 400,000 and 2 million people are said to live in below standard housing conditions. This situation has been recently brought to the public attention but initiatives are limited by the prevailing economic conditions in France.

Financing

The French system to finance homeownership is well developed. Among the 315,000 new units built in 1990, 155,000 benefited from the different levels of government support. This support is intended to enable low and moderate income families to access homeownership. There is also government support for the rehabilitation of older units (built 20 years ago and earlier).

3.6.3 The French Housing Industry

Structure

In 1991, there were 299,000 firms totalling 995,000 employees. The majority of them are small companies:

	Number of firms	Number of employees
1-10 employees	280,000	310,000
11-50 employees	17,000	325,000
51-200 employees	1,800	167,000
200 employees and up	300	193,000

Source: Federation Nationale du Batiment-FNB

Contractors

Of the top 50 contractors in Europe, 12 are French. Among the top 200 contractors worldwide, 13 are French. In 1988, the six largest contractors undertook 11% of all building work and 21% of civil engineering. The public sector accounts for a large proportion of the sales from major contractors, especially through large infrastructure programs and rehabilitation of public housing.

In the late 1980's, French contractors grew rapidly, expanding their activities, profits and margins and making several moves towards diversification and external growth. Most chose to expand through mergers and acquisitions, with the larger groups attempting to do it at the European level. Considerable interest in construction has been shown by public utilities companies; for example, Générale des Eaux who not only undertake construction, but who also control SGE, the second largest contractor.

In the 1990's the large French contractors will offer "services verts" (green services) in an attempt to place themselves in the same category as companies operating in environmental and urban services. Seeing a global demand for these services that can be matched only by a global response, Lyonnaise des Eaux, a public utility company, and Dumez, a contractor, have formed a single firm, Groupe de Services Verts, to exploit these growing markets.

Construction materials producers

French materials producers are among the largest in Europe and in the world: 9 French companies are among the top 50 in Europe, with Saint Gobain first and Lafarge Coppée second. The merger of companies into larger groups, together with products diversification, make the identification of a genuine construction materials producer very difficult. For example, the proportion of materials produced for construction purposes by Usinor Sacilor, Les Cables de Lyon and Merlin Gerin is high, but they also produce for other industries and tend to consolidate their sales figures for all products.

A study carried out by the French Ministry of Equipment has shown that more than 40% of the following products are imported: plumber's equipment, metal windows, concrete blocks, papers and paint.

R&D

France has very active centres engaged in construction R&D and is probably the country with the largest research facilities and most extensive resources engaged in construction R&D in Europe. France could be said to be preeminent in Information Technology and Automation Technology applications, glass technology and cements. It is a country that has strong capabilities for developing new construction technologies. R&D is being done on technological innovation (e.g. design process, new measurement systems, computerization and automation of the construction process...), improvement in the performance of construction components and prevention of failure and mastering the properties and uses of materials.

3.6.4 Opportunities for Canadian Firms

Export leads

Wood frame construction has been traditionally very limited in France, accounting for less than 10% of total housing units. Wood frame houses are mainly used for secondary homes construction (cottages or "chalets") and, to a lesser extent, to refurbish aged buildings (addition of a wood frame storey on the top of the building). However, it seems that this situation is mainly due to an insufficient wood construction supply compared to the strength of the traditional concrete industry. Should a competitive and structured supply be provided to the French customers, wood frame construction could experience growth potential. The fact that such an important group as Bouygues is involved in this area through Houot Constructions, the French leader of wood frame construction, is a clear signal that this market is poised to grow in the coming years. Scandinavian and German companies, including number one Philipp Holzman, have understood the opportunities but have not as yet succeeded in entering the French market.

Indeed, the French housing market is very difficult to penetrate because of its numerous and complex regulations and practices and also because the French concrete industry is very strong and has a strong grip on the market. Rather than confronting French homebuilders, it is highly recommended to proceed through strategic agreements and joint ventures, bringing the technical expertise and benefiting from the access to the market of a French partner. Promotional actions will be also required since French architects are not familiar with wood frame construction.

ASSISTANCE TO THE HOUSING INDUSTRY IN TRADITIONAL INTERNATIONAL MARKETS

4.1 INTRODUCTION

The assistance to the development of international trade provided to all industries by government agencies in Canada is extensive, comes from multiple sources and is delivered through a complex system of interrelated programs and services delivered by agencies that have different missions and organizational structures.

The objective of this chapter is to provide an understanding of this system as it relates to the particular needs of the Canadian housing industry interested in seizing market opportunities in the developed countries of North America, Western Europe and the Pacific Rim. Particular attention has been paid to positioning within this system, the assistance provided by federal agencies to industry segments interested in exporting housing technologies and services as final outputs or as potential entry vehicles for housing materials and products.

The chapter summarizes the mission, objectives, relevant programs and services to the industry and the delivery mechanisms adopted currently by the following federal agencies: External Affairs and International Trade Canada (EAITC), Industry, Science and Technology Canada (ISTC), Export Development Corporation (EDC) and Canada Mortgage and Housing Corporation (CMHC). The specific contribution from Energy, Mines and Resources Canada (EMR) and the National Research Council in fostering the export of key housing technologies is highlighted. Key contacts are appended.

4.2 THE AGENCIES AND THE ASSISTANCE

The following paragraphs introduce in sequence the mission, role, programs and services relevant to the housing industry and delivery mechanisms adopted currently by the above mentioned agencies. A "snap shot" summary of the respective role of these organisations will help however the reader through this section:

- * Industry Science and Technology Canada (ISTC) could be considered for all sectors of the economy as the repository of federal Government knowledge of Canadian industry capabilities, profiles, competitive strengths in Canada and experience to date on international markets.
- * It turns then to External Affairs and International Trade Canada (EAITC) to promote the various industries internationally and to support the international marketing activities of Canadian companies.

- * The Export Development Corporation is Canada's official export credit agency. It helps build Canadian exports by providing insurance as well as financing and guarantee services that enable Canadian companies to sell competitively and safely in world markets. As a crown-corporation, EDC reports to Parliament through the Minister for International Trade.
- * Canada Mortgage and Housing Corporation (CMHC) is the federal lead agency in matters pertaining to housing and related urban development. Among its objectives, CMHC assists the housing industry to adjust to changing economic conditions, facilitates innovation in housing technologies, heightens the international profile of Canada's housing sector and its related industries and contributes to the identification of commercial opportunities for Canadian providers of building products, services and technology.
- * The Institute for Research in Construction (IRC) is a division of the National Research Council of Canada. Its mission is to provide the construction industry with the best possible technology. Among its strategic objectives are: to undertake research of significance to the Canadian construction industry and its users, to develop appropriate technology and information and promote their adoption by the industry and to support the national construction codes, standards and evaluation process. Through its Industry Liaison Branch which is IRC's technology transfer arm, it contributes to the competitiveness and productivity of the Canadian construction industry by facilitating access to national and international construction technology.
- * Energy, Mines and Resources Canada is the federal lead agency in matters pertaining to energy. Since 1982, EMR has developed and been responsible for the strategic management of the R-2000 program in Canada and for developing the export potential of the concept and technology abroad. The technology and expertise developed by the R-2000 program is positioned as a leading edge in the field of cold climate, timber frame, energy efficient house construction. Program implementation has been the responsibility of the Canadian Home Builders Association (CHBA) and provincial homebuilders associations and contains technological research, builder training, testing, quality insurance and marketing components. In May 1990, EMR signed a royalty-free licensing agreement with the Japan 2X4 Home Builders Association to license them to use R-2000 technology, training materials, software and trademark. This agreement is established as a two-way flow technology agreement which may provide valuable market information for Canadian exporters and researchers.

4.2.1 External Affairs and International Trade (EAITC)

EAITC is the federal department responsible for international trade and export development. 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:
 - support their export marketing activities
 - help them obtain foreign investment and technology to improve their international competitiveness.

The department delivers its trade programs and services through 138 offices in Canada and around the world. It provides such programs and services through

- * International Trade Centres throughout regions in Canada
- * Geographic trade divisions of EAITC in Ottawa
- * EAITC's sector trade divisions in Ottawa: the housing industry is served by the "Agri-Food Division"
- * Trade commissioners abroad

The respective role and services provided by each of these entry points to EAITC services is introduced in a synoptic format in the following pages.

EAITC entry points	Role	Specific to housing industry in developed countries	Specific notes
International Trade Centres in 12 cities across Canada	<p>provide "one-stop" trade services to new and experienced Canadian exporters in the various provinces.</p> <p>provide basic export counselling</p> <p>help identify market opportunities</p> <p>help develop foreign marketing</p> <p>plan, counsel on technology transfer and joint venture opportunities</p> <p>recruit participants for trade fairs and missions abroad and arrange trade-related conferences and seminars.</p>	<p>also help obtain financial support through the Program Export Market Development (PEMD) and other EAITC programs</p>	<p>International Trade centres are operated jointly by EAITC and Industry, Science and Technology Canada. International trade Centres are usually colocated in ISTC's regional offices.</p>

EAITC entry points	Role	Specific to housing industry in developed countries	Specific notes
<p>Five Geographic trade branches of EAITC in Ottawa</p>	<p>provide trade information for specific countries or regions.</p> <p>Identify promising export markets, help companies prepare for visits to potential markets, arrange participation in trade fairs and involve exporter in visits to Canada by foreign buyers.</p> <p>Geographic divisions are:</p> <p>Africa and Middle East, Latin America and Caribbean and Central America Division including Mexico</p> <p>Asia and Pacific division with its Japan , Asia Pacific South, and East Asia Trade Development sub-divisions,</p> <p>Europe with its Western and Eastern Europe trade development subdivisions</p> <p>United States with its United States Trade and Investment Development subdivision and United States Trade and Tourism Development</p>	<p>The United States division, due to the importance of the US market to Canada is the only one where the service sector is dealt with in a distinct subdivision (Trade and Tourism Development subdivision)</p>	

EAITC entry points	Role	Specific to housing industry in developed countries	Specific notes
Six Sector trade divisions in Ottawa	<p>provide information and advice on marketing opportunities and conditions around the world for individual products or service sectors. Other divisions offer expertise in related fields, such as export financing and investment.</p> <p>The sector divisions are:</p> <p>Agri-food division</p> <p>Consumer products division</p> <p>Fisheries division</p> <p>Resources and Chemicals division</p> <p>International defence Programs:</p> <p>Aerospace and marine division</p> <p>Information technologies and</p> <p>Electronics division</p>	<p>The sector division addressing the housing industry perspective is the "AGRI-FOOD DIVISION" due to the importance of forest products involved in wood frame housing construction.</p>	

EAITC entry points	Role	Specific to housing industry in developed countries	Specific notes
Trade commissioners abroad	<p>approximately 540 trade commissioners posted around the world) provide further assistance when specific markets of interest have been identified. This assistance comprises:</p> <p>Promote individual companies to local customers</p> <p>advise on marketing channels</p> <p>recommend participation in trade fairs</p> <p>identify suitable foreign firms to act as agents</p> <p>help find credit and business information on potential foreign partners</p> <p>intercede to help solve problems with duties, taxes or foreign exchange</p> <p>advise on a country's current trade, business and financial environment</p>	Trade Commissioners contacted abroad pointed out a need for a better understanding of the particular perspective, profile and issues faced by the service and technology segments of the Housing industry	Access to trade commissioners abroad is advised only once a systematic marketing plan has been developed with or without the assistance of the local International Trade Centres

4.2.1.1 **EAITC 's most relevant programs and services provided to the housing industry for export in traditional markets**

As highlighted in the previous section, EAITC is mainly structured around an **horizontal or geographical definition** of the markets to be covered: Commercial officers and trade commissioners both in Canada and abroad have to be equally knowledgeable of all industries, service and monitor market opportunities for all industries and sectors that are interested in the geographical areas under their responsibilities. Traditionally, most of the emphasis has been put on servicing the "products manufacturers" segments of various industries.

In this section, four major services delivered by EAITC are summarized and the most relevant characteristics of these to the housing industry profile and perspective are highlighted. These services are:

- * The PEMD program which is EAITC's primary export promotion program
- * The Export orientation-training programs (NEBS, NEXUS, NEXOS)
- * The services provided to the exporters of services by the Trade and tourism division within the United States Geographical division.

GENERIC PROGRAMS

PROGRAM FOR EXPORT MARKET DEVELOPMENT (PEMD)

PEMD is EAITC's primary export promotion program. The program objective is to increase export sales of Canadian goods and services. The program accomplishes this by sharing the costs of activities that companies normally could not or would not undertake alone, thereby reducing the risks involved in entering a foreign market. PEMD encourages Canadian companies not previously involved in exporting to become exporters and encourages Canadian exporters to enter new geographic markets and to introduce new products in existing markets. It supports a variety of activities to help Canadian companies expand into export markets. PEMD funds up to 50% of eligible expenses and must be requested in advance. A portion must be repaid if the activity generates export sales. Funded activities include:

- * participation in recognized trade fairs and visits to identified markets outside Canada.

Preference will be given to proposals from companies with total annual sales greater than \$250,000 and less than \$50 million

- * visits by foreign buyers and foreign sales agents to Canada

Preference will be given to proposals from companies with annual sales greater than \$250,000 and less than \$50 million

- * marketing agreements (marketing campaigns consisting of a number of trade fairs and visits directed toward a single target market) for medium sized companies experienced in exporting;

Preference will be given to proposals from companies with annual sales greater than \$250,000 and less than \$50 million

- * capital project bidding for major capital projects outside Canada involving international competition, formal bidding procedures or proposal preparation at the preconceptual stage. The bids are for the supply of Canadian goods and services such as engineering, construction, architecture and management consulting.

The bid value to the applicant must be greater than \$1 million. Preference will be given to applicants with annual sales greater than \$1 million. In cases involving ad hoc consortia, each member firm's individual application is evaluated against program eligibility criteria. The applicant must clearly demonstrate the capability to undertake the project.

- * participation in special activities by non-profit industry associations on behalf of their member companies. Special activities may include participation in foreign trade fairs, visits (incoming and out-going), technical trials, product demonstrations, seminars and training, commodity promotions etc.

The association must have a documented export marketing strategy outlining achievable or increased export sales potential for their members, demonstrated resources to fulfil the proposed activity and approval of the proposed activity by their association's Board of Directors.

- * innovative marketing initiatives which do not fall under the above.

General eligibility to PEMD

Eligibility to PEMD assistance requires that organizations come under one of the following categories:

- * an incorporated business
- * an independent firm of professionals such as architects or engineers
- * a sector-specific, no-sales trade association (for the Special activities element only)

PEMD applicants must be export-ready Canadian companies registered in WIN EXPORTS (a computerized international sourcing system). Using WIN exports, EAITC development officers can:

- * identify Canadian suppliers able to respond to sales opportunities in the officer's territory
- * identify Canadian suppliers best suited to participate in departmental trade promotion activities
- * make appropriate contacts on behalf of Canadian companies
- * report back with advice to help them make informed decisions. If companies are registered on the Business Opportunities Sourcing System (BOSS)- a domestic sourcing system operated by Industry, Science and Technology Canada, they are automatically registered in WIN exports. To apply for Win registration, companies should contact the Trade Information system and Win Division, at EAITC-Ottawa.

To be assumed to be export ready, they must:

- * be established and operating in Canada and have current sales performance data
- * have satisfactory marketing and managerial capabilities
- * be financially able to successfully complete the project
- * have an exportable product or service that meets Canadian content criteria of 60%
- * have fulfilled reporting and repayment requirements on any and all previous PEMD assistance.

Program delivery

Applications to the Trade Fair, Visit and Marketing agreements applications are submitted to the various regional International Trade Centres which are jointly operated by EAITC and ISTC. Applications to Capital Project bidding and Special activities are submitted to the EAITC's Export and Investment Programs division in Ottawa. Completed applications are assigned to a project officer who evaluates the proposal against the eligibility criteria and the availability of program funds. The project officer also obtains comments on the activity, the market or other relevant considerations from EAITC trade commissioners abroad, from International Trade Centres and from Sectoral divisions at Industry Science and Technology Canada.

As described below, the sectoral advisors at ISTC dealing with the housing industry are coming from:

- * the Construction Industry and Capital projects directorate within the Service and Construction Branch for projects dealing with architectural and engineering technologies and services mainly in the high-rise segment of the housing industry
- * the Wood products division and the sector strategy and Value-added products division within the Forest industries branch for projects or activities dealing with low-rise housing projects assumed to use wood-frame housing construction techniques.

EXPORT ORIENTATION AND TRAINING PROGRAMS

EAITC offers three training programs to help small and medium sized Canadian companies expand into selected export markets:

NEBS: NEW EXPORTERS TO BORDER STATES

NEBS is for Canadian companies which have not previously exported but which are "export ready". The program is a crash course in the essentials of exporting to the U.S.. It provides practical information along with first hand exposure to a nearby marketplace in the U.S. Participants go to a Canadian trade office across the U.S. border for a one or two-day "walk-through" course on the entire process of exporting. Experts give information on documentation and customs procedures, banking, insurance, agents, distributors and other topics. The program pays return transportation costs.

NEXUS: NEW EXPORTERS TO THE U.S. SOUTH

This program is for companies that have traditionally exported to only one U.S. regional market, usually in the northern United States. Using a NEBS-style workshop format, NEXUS provides information and contacts to help expand into other U.S. markets, particularly in the southern United States. NEXUS also usually features a visit to a local trade fair or event. The program pays return economy fare to the NEXUS site. Information for both NEBS and NEXUS are provided by the International Trade Centres or the United States Trade and Tourism Development Division at EAITC.

NEXOS; NEW EXPORTERS TO OVERSEAS

The objectives of NEXOS are to expose exporters to new Western European markets and have European experts explain how business is done there. These special missions assist NEXOS participants to decide whether and how to pursue European markets. This program is particularly aimed at all the small to medium sized companies from every region of the country which have only exported to the U.S. as a logical extension of their Canadian operations. Typically, companies will qualify for participation in a NEXOS mission if they have demonstrated a sustained and successful marketing effort to the United States or other country over a number of years. Successful NEBS and NEXUS graduates will form an important base for NEXOS missions. Projects can be initiated by either the Western Europe Trade, Investment and Technology Division or EAITC posts abroad.

EAITC'S ASSISTANCE TO THE CANADIAN EXPORTERS OF SERVICES

At the beginning of the 1990s, the United States geographical division at EAITC was first to recognize that product manufacturers had received traditionally all the attention of the department and that the export of services from an increasingly service oriented economy deserved more attention in developing export assistance tools that are tailored to characteristics of the service industry.

In order to progressively close this gap, the US Trade And Tourism division with one professional and a limited budget assigned to all service industries decided to prioritize 6 service sectors among the pre-identified 80 subsectors in the service industry. The priority framework was suggested by the Business and Professional Service industries directorate at Industry, Science and Technology Canada.

The major criteria for a service sector to be given a priority status were: the existence of market opportunities in the U.S., the export-readiness of the industry and the capabilities to maintain export activities. The export readiness of individual service sectors was in turn measured in terms of:

- whether or not the industry had set up an Export Committee with established credentials within an existing industry association (e.g whether or not such a committee had defined the U.S. market as priority market for which export strategies had been developed, whether or not the service sector had already used PEMD's financial support)
- whether or not the industry had already entered the export market and needed to focus its efforts.
- whether or not the industry has an infrastructure enabling a quick reaction to large opportunities and providing management support to the industry.

Using these criteria, the following six service sectors have been given priority and receive special attention: Architectural services, Geomatics, Engineering consultant services, Environment services, Information technologies and Transportation services. The prioritization of additional sectors will depend upon their ability to comply with the above mentioned criteria and the budgets allocated to the service sector. Specific assistance is provided to priority service sectors:

- 1) Participation in selected trade shows
- 2) Trade missions to selected areas where trade posts find the contacts and potential partners to be met
- 3) Media tours where Canadian industry representative visits the foreign editor of key media
- 4) Funding of incoming buyers
- 5) Sponsorship of detailed market studies such as the study titled "Penetrating the United States Construction market", required either by trade posts or the industry
- 6) Seminars and publications targeted to specific sectors
- 7) Seminars designed to train Trade posts on the characteristics of individual service sectors.

For the other (non-priority) service sectors, generic services such as seminars on how to export services to U.S , one-to-one meetings with trade commissioners have been and continue to be delivered on a continuous basis. A stand-alone "kit" which gathers all the relevant knowledge on how to export services (on paper and video tape) will be issued in 1993 by EAITC.

As planned by EAITC, such initiative will comprise in its first phase, general information to all service sectors. In its second phase, scheduled for 1994, industry specific fact sheets will be prepared.

4.2.2 Industry , Science and Technology Canada (ISTC)

ISTC's mission is to promote international competitiveness and excellence in Canadian industry, science and technology. This mission is achieved through numerous objectives among which are:

- * improving Canada's performance in international trade (through working on reinforcing the Canadian industries' competitive strengths and capabilities)
- * facilitating cooperation among private and public sector partners and stimulating the growth of the Canadian industrial, scientific and technological base
- * developing industry and science policies to build a climate for sustainable long term economic growth
- * facilitating the collection and dissemination of information of strategic significance to the business communities

ISTC's main role is to develop the necessary information base and government knowledge on the various industries' strengths, weaknesses and competitive capabilities in Canada. ISTC has developed a range of generic and sector specific programs and services that are all accessible at ISTC's Business Centres located across Canada. These include: reference and video libraries; publications, industry sector profiles and Canadian market intelligence reports; access to computer data bases such as BOSS; data bases to help find appropriate technologies; self-diagnostic software programs to assist in identifying technology and market and business opportunities. To apply for BOSS registration, companies should contact ISTC Business Service Centres or Business Opportunities Sourcing System, Service Operations Directorate, Services to Business Branch, ISTC-Ottawa.

ISTC is also delivering the Canada Awards for Business Excellence program through annual awards honouring outstanding business achievers within 8 award categories: Invention, Innovation, Industrial Design, Entrepreneurship, Marketing, Small Business, Environment and Quality. They are open to businesses of all sizes and in all fields of economic activity located in Canada. ISTC Sectors and Service directorates in Ottawa provide also advice on the eligibility and the capabilities of Canadian applicants to various support programs funded by EAITC such as PEMD, NEXOS, NEXUS and NEBS. Further information on the numerous programs and services offered currently by ISTC can be obtained from the references listed in an appendix to this document.

ISTC efforts on a national basis are complemented by the initiatives of the various provincial government trade development corporations for the companies and firms in their respective territories.

4.2.2.1 **ISTC's programs and services most relevant to the housing industry for export in traditional markets**

The ISTC department is structured primarily around a **sectoral definition** of the industry: Traditionally, the emphasis has been put on the "product manufacturers segment" of each industrial sector. These "product segments" are perceived as the most important contributors to the creation of added value in the Canadian economy. To the numerous Sectoral or Product branches has been added the Service and Construction Industries Branch which comprises four directorates: the Consulting and Engineering Service Industries, the Distribution Service Industries, the Business and Professional Service Industries and the Construction Industry and Capital Projects Directorate.

The services and programs delivered by two branches are particularly relevant to the housing industry:

- 1) The Forest Industry Branch with its Wood Products Division and its Sector Strategy and Value-added Products Division. These branches are responsible for the **wood products** segments of the housing industry (including manufactured housing and manufactured wood products). Since most of low-rise housing is commonly based on wood frame construction techniques, all projects (products, services and technologies-on-site and off site house construction) related to low rise housing are referred to these "product oriented" branches.

These branches are responsible for the management and the delivery of the three specific programs described below: COMDP (Cooperative Overseas Market Development Program), CIMDP (Cooperative Industrial and Market Development Program), Timber frame Construction. The Wood Products Division has also been very active on the Canada-Japan Committee set up in the 1970's by CMHC with ISTC to exchange information on technologies and explore opportunities for trade. This committee has succeeded in having wood-frame 3-storey buildings integrated into the Japan Building Code (fire safety). ISTC is expected to support through the provision and support of on-site technical and supervisory assistance, the construction of the first pilot house under this new regulation in the region of Osaka.

- 2) The Construction Industry and Capital Projects Directorate is responsible for the service and technology segments of the housing industry i.e. **architectural and engineering services**. Since such services are usually required in high rise housing, this service branch has been assigned most of the projects (products, services and technologies) related to high rise housing included steel frame building and systems.

The Construction Industry and Capital Projects Directorate does not manage specific programs. Its major role lies in the analysis of the Canadian capabilities that could compete for international capital projects, in the provision of 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. The directorate also provides advice of the capabilities and eligibility of applicants to EAITC's PEMD program.

SPECIFIC PROGRAMS

FOREST INDUSTRIES- COOPERATIVE OVERSEAS MARKET DEVELOPMENT PROGRAM (COMDP)

This program is 15 years old and managed by the Wood Products Division of the Forest Industry Branch. It is based on tripartite agreements involving ISTC for the federal government (one third of global financing), individual provinces and certain wood product industry associations. The key objective of the agreements is to expand and protect overseas markets for solid wood products. Efforts are concentrated on developing new markets, protecting existing markets, identifying new product opportunities and monitoring attempts in foreign countries to introduce tariff and non-tariff barriers against the import of Canadian products.

COMPD is used to finance COFI (Council of Forest Industries) and the Bureau de promotion de l'industrie du Bois and is delivered by COFI (in Western Canada) and the Bureau (in eastern Canada). COFI whose Headquarters are located in British Columbia has offices in various countries in Europe, Asia and the United States. COFI's foreign offices best know the local on-site construction industries to which most Canadian forest products sales are targeted. Throughout years, COFI has been developing a successful strategy to support the export of forest products in traditional markets. This strategy has applied however only to a limited number of countries i.e. countries with a definite potential for forest products exports.

Countries with large supplies of forest products that could have benefitted from Canadian housing technologies and services have been generally excluded. COFI's strategy on traditional markets is documented in the CMHC paper titled: "Report on Trade Experiences for Woodframe Construction and Building Products" (available from the Canadian Housing Information Centre at CMHC).

FOREST INDUSTRIES- COOPERATIVE INDUSTRIAL AND MARKET DEVELOPMENT PROGRAM (CIMDP)

CIMDP is also a joint program developed 3 years ago and involving ISTC for the federal government (one third of total financing), the provinces and the secondary wood products industry in Canada. It is a five year cost shared program managed by ISTC's Sector Strategy and Value-added products Division, that fosters the industrial development of the manufactured wood products sector exclusively (Value added products such as windows, doors, etc.) and the expansion and diversification of export markets. Currently an agreement exists with British Columbia and the British Columbia Wood Specialities Group.

FOREST INDUSTRIES- TIMBER FRAME CONSTRUCTION PROGRAM

This program was developed 2.5 years ago to enhance the export sales of Canadian manufactured housing, wood products and building materials through demonstration housing projects in high priority markets (such as markets without significant wood resources). With one more year to go, the assistance is provided to wood products and building materials associations or consortia of companies to undertake demonstration housing and development projects. Up to 50% of eligible costs can be provided but the overall program budget is limited. CIMDP has been designed as an extension of the Forest Industries-R-D and innovation program.

4.2.3 Export Development Corporation (EDC)

The Export Development Corporation (EDC) is a federal crown corporation wholly owned by Canada. Its mandate is to promote the growth of Canada's export trade by providing:

- * insurance to exporters
- * financing to foreign clients
- * guarantees to the exporter's bank

so that exporters can minimize the risks and maximize the opportunities of selling goods and services throughout the world. EDC's services are available to any Canadian-based exporter of any size operating in any industrial, commodity or service sector. The philosophy is to work in tandem with highly motivated exporters who are internationally competitive in product, price, quality, delivery and service. EDC has regional offices in almost all provinces and its headquarters are located in Ottawa.

EDC EXPORT INSURANCE SERVICES

EDC's export insurance protects exporters against 90% of losses due to non-payment relating to two main types of risk- commercial (e.g. buyer insolvency, default on payments, termination of contracts, etc) and political (e.g. foreign exchange conversion or transfer payments difficulties, cancellation of government import or export permits). EDC insures almost any type of export, including raw materials, commodities, semi-processed goods, consumer goods and services. Various insurance services are provided: short-term or medium term insurance, performance related guarantees, foreign investment insurance.

Short-term insurance policies cover export sales made on credit-terms of 180 or fewer days. EDC also has policies for small businesses who sell only to the U.S. or for those who sell to a variety of world markets. While broad coverage is a feature of these policies, EDC insurance is also available to exporters who want more targeted coverage - protection against specific risks or in specific markets. EDC has insurance called Bank Documentary Credit Insurance that encourages banks to issue documentary credit commitments (confirming the exporter Irrevocable Letters of Credit for example).

Medium-term insurance policies cover the risks of export contracts with credit-terms that exceed the six-month period (associated with short-term, insurance coverage). Specific transaction insurance is a medium-term insurance policy that covers both political and commercial risks and provides 90% protection. For domestic suppliers to an export project, EDC has insurance which protects against non-payment by the Canadian exporter-of-record. There is also a policy which protects members of an export consortium against loss resulting from non-performance of a partner.

Through performance related guarantees, EDC offers insurance services to protect financial institutions, including surety companies, against losses when issuing bid, performance or advance payment bonds on behalf of Canadian exporters. Wrongful call on such bonds or even rightful call due to events beyond the exporter's control are insured through bid and performance security insurance.

Foreign investment insurance

EDC recognizes the growing importance of foreign investment and joint ventures to the Canadian exporting community. The Corporation offers coverage for new investment overseas to protect against the full range of political risks, including the risk of expropriation and repatriation of capital and earnings.

EDC EXPORT FINANCING SERVICES

Export financing is the process whereby EDC extends the medium or long-term financing that a foreign buyer needs in order to purchase Canadian capital goods or services. Generally the process works like this: EDC normally finances **85% of the Canadian portion** of an export deal; EDC pays the Canadian exporter on behalf of the borrower, as contractual obligations are performed and then collects from the borrower according to agreed interest rates and repayment terms

EDC loans

Direct loans- called buyer credit financing usually support one-off transactions between the exporter and a foreign buyer. Project loans establish a maximum amount of credit which can be used to support numerous Canadian companies that win contracts to a single foreign project. If the exporter represents the Canadian part of an international export consortium, EDC can act as a co-lender, regardless of whether EDC's financial partners are private or public sector financial institutions. EDC has also a supplier credit financing program, which comes handy when foreign buyers prefer to use promissory notes as the method of payment.

EDC lines of credit

Lines of credit are pre-arranged pools of credit designed to support a variety of Canadian sales to a variety of foreign buyers. Lines of credit are usually established between EDC and a financial institution in a foreign country. Foreign buyers appreciate the availability of prearranged financing, and they like being able to deal with a familiar institution in their own country and in their own language. EDC has established lines of credit in dozens of Canada's export market throughout the world: in the traditional markets of the three global regions covered in this study, lines of credit were established (as of Fall 1992) in Mexico, Belgium, Italy, Portugal, United Kingdom.

4.2.3.1 EDC's services and the housing industry

EDC's representatives acknowledge that the most relevant EDC services to the housing industry are insurance services, not financing services since:

- * EDC is not interested in long-term mortgage financing (where local financing institutions are more competitive and less vulnerable to the bad image that could be associated with a Canadian public agency recuperating collaterals i.e. homes in case of non-payment.)
- * Bridge financing is a very "hands-on" exercise requiring almost continuous presence in multiple foreign sites to monitor work progress throughout projects.

References to national lines of credit could alleviate somewhat the latter situation. However to be eligible for these credit lines, projects must have a minimum of 60% Canadian content; moreover, such credit lines do not support the financing of local costs such as local labour and local materials coming from foreign countries.

In some countries, building contract financing is restricted to projects where the financial requirements are over \$1 million (since administrative costs to EDC are important for individual projects). In the past, EDC received few requests for financing from developers, architects or home builders. The most active segment of the industry with EDC has been the manufactured housing segment.

4.2.4 CANADA MORTGAGE AND HOUSING CORPORATION: INTERNATIONAL RELATIONS FUNCTION

Canada Mortgage and Housing Corporation is the federal lead agency in domestic matters pertaining to housing and related urban development. In Canada, CMHC provides leadership by facilitating a stable private housing market and industry. CMHC's research, development, information and technology transfer capability plays an important role in keeping the housing industry vibrant. The National Housing Research Committee, which includes representatives from all three levels of government, the academic community and the private and non-profit sectors plays a coordination role in the identification of housing research priorities and facilitates the exchange of information.

In order to help housing markets adapt to changing technologies and needs, CMHC:

- * works in partnership with industry to facilitate innovation in housing technologies and building systems, and increase information transfer to the work force;
- * continues to explore alternative sustainable designs and technologies for northern climates;
- * promotes a variety of options for seniors, persons with disabilities and other special populations;
- * encourages a more effective regulatory environment to promote innovation; and
- * helps Canada's housing industries to identify international opportunities.

CMHC's mandate as set out by the National Housing Act is to "improve the housing and living conditions of Canadians". CMHC's International Relations Division manages Canada's- CMHC's involvement in matters relating to housing and related urban development in the international community for the benefit of the Canadian housing sector.

CMHC'S STRATEGIC DIRECTIONS

CMHC's Strategic Plan for 1992-1996 suggests that the period to 1995 will be characterized by transition and changes as international events, such as global recession, reunification of Germany, the technological revolution and its associated changes, movement toward a single European market, the emergence of large regional trading blocks and the proposed broadening of the GATT to cover services and investments, work themselves through. CMHC acknowledges that these changes require an increased awareness of the implications of global change on the housing industry in Canada and a willingness to undertake the structural and other forms of adjustment required for adaptation to be successful.

Among the challenges that the Corporation will face during the 1994-1996 period is the exploration of ways to help Canada's housing industries benefit from global restructuring and emerging economic and political realignments. In order to respond to this challenge, CMHC will:

- * work closely with the industry and government departments with an international mandate to develop a strategic approach to the international marketplace
- * use its international network and credibility to identify economic opportunities abroad for Canada's housing sector.
- * facilitate information and technology transfer to help Canada's housing industries reflect the latest research and technology developments from around the world
- * explore and develop in partnership with appropriate elements of Canada's housing sector, the opportunities to assist emerging democracies through the sharing of information on Canadian housing systems and technologies.
- * assist as it is requested by the industry itself, Canada's housing industry to benefit from new international markets
- * monitor international developments and assess their implications for Canadian housing and urban development
- * contribute to the efforts of the emerging democracies to develop housing markets and related institutions
- * offer sustainable, transferable Canadian solutions and technologies that can be applied to housing and settlement issues and problems in developing countries.

5.0 KEY FINDINGS AND CONSIDERATIONS

Exporting is one of the most difficult ways of doing business. Indeed, the exporter has to face all the difficulties he or she normally encounters (assessing market opportunities, negotiating deals...) but in an environment that is not well known and entails proportionately heavier costs (travel expenses, overseas telecommunications...). In addition to that, one must also cope with new kinds of problems such as tariffs, international laws and practices, foreign domestic policies, currency changes, etc. The challenge in doing business abroad is especially large in housing activities since housing is by nature a local business shaped by different customer tastes and living habits, different regulations and standards and by established local supply. These local patterns are particularly strong when considering developed countries.

However, the Canadian housing industry has developed competitive strengths and strong areas of expertise (wood frame housing, energy efficiency housing, housing for seniors...) and a number of Canadian firms do have the ability to export their products, services and know-how. In fact, a significant number of Canadian companies are already active in the U.S. market and, to a lesser extent, in Europe and in Asia. In addition to its geographical location that enables it to approach markets in the South, East and West, the Canadian industry benefits from the diversity of its multicultural member firms and individuals who have easier access to the countries from which they originate.

Of course, doing business abroad necessitates a long term commitment and requires a lot of effort and expense before rewards can be realized. However with careful planning, targeted market intelligence, good use of the support provided by government and industry associations, and a cautious but nonetheless dynamic and focused approach, Canadian companies can find new business opportunities, undertake risk diversification and foster exchanges on an international basis that could help them to be more competitive in their domestic markets as well.

A proven way to access foreign markets, especially for companies with limited resources and experience, is to consider the *piggy backing* approach: benefit from the resources, experience and local connections of a larger Canadian firm already involved in the targeted country in order to join efforts and expertise to deliver extra value to the foreign customer.

When reviewing the six countries studied in this research, three broad categories of business opportunities appear:

- 1) First, opportunities presented by a disequilibrium between supply and demand in a given region which may have resulted from a number of factors, related to historical circumstances or which are structural in nature:

- urgent needs resulting from a sudden crisis: earthquake, hurricane e.g Florida after Hugo's passage, requiring quick solutions to be provided;
 - huge one time capital intensive projects such as World Fairs (Sevilla 1992), Olympic Games (Barcelona 1992, Atlanta 1996) or large domestic projects (downtown rehabilitation, social housing etc...);
 - accelerated economic growth that has created customer demands that outpace the local industry's capabilities to deliver (as in Spain for example);
 - demographic needs or consequences (trade-up housing) that the local industry is unprepared for and cannot fully meet (Germany and Mexico);
 - changes in laws, regulations or standards that create a short term opportunity for foreigners while the local industry is adjusting (wood frame housing opportunities in Japan resulting from changes to the building code and specific demands for rehabilitation projects in downtown areas).
- 2) Opportunities for value-added by foreign contractors, originating from a unique expertise, specialized skills or specific products (energy efficiency housing, housing for seniors...) or from customers simply looking for different products as a way of differentiation, both from an importer and a homeowner point of view (Japan and Spain).
- 3) Opportunities coming from a piggy backing approach:
- countries where financing capabilities (money or know how) will provide an important edge (Mexico, Spain and also Eastern Germany where the ability to finance a project is lacking);
 - countries where special training is required (Spain and France where both architects and labor are not familiar with wood frame houses);
 - countries and companies looking for technology transfers and transfer of expertise to improve their competitiveness (Mexico).

Although generalization is always limited, especially in international trade, there are some general observations that could be made when considering distinct segments of the housing industry.

First, Canadian companies should expect some difficulties in carrying out on-site building activities abroad since the vast majority of developed countries have strong laws to impede foreign labor working in their territory (USA for example) or at least to limit this ability (Japan). Both developers and home builders should focus their foreign activities on turnkey projects (resort village projects in the U.S.A, Mexico, France and Spain), social housing projects (Mexico) or custom designed projects, and on technology transfers (planning, financing, site management, cost control procedures...).

There are definitely numerous opportunities in manufactured housing from which home builders can benefit. On the other hand, high-rise housing markets in developed countries seem to be very difficult to penetrate since the major domestic companies are strongly involved and have considerable control over that business.

Whereas architectural services are available in every developed country, a number of Canadian architects have specialized expertise for which they could be in demand abroad. Thanks to Canada's geographical and cultural proximity and the efforts that have been made up to now, the U.S. market seems to be the most natural market for Canadian architects, however those who can satisfy and are willing to work to meet the required criteria (language skills, registration ...) could also do well elsewhere (Spain and Japan).

As for building materials and hardware which have been traditionally the main lines of Canadian exports abroad in the housing sector, opportunities exist in all countries for competitive or innovative products supported by a strong marketing and standards approach.

The following table describes in a synoptic way, the key elements that should be considered by any Canadian company wanting to export. It should also not be forgotten that governments and industrial associations have a number of programs and initiatives that could be very helpful.

**EXPORTING SUCCESSFULLY:
STEPS TO FOLLOW AND GOVERNMENT SUPPORT TO CONSIDER**

MAJOR STEPS	DETAILS	GOVERNMENT SUPPORT TO CONSIDER
ASSESS MOTIVATIONS	<ul style="list-style-type: none"> *need for new business (shrinking domestic market) *risk diversification *improving competitiveness: exporting enriches a firm's capacity to deliver better services and products in Canada 	

MAJOR STEPS	DETAILS	GOVERNMENT SUPPORT TO CONSIDER
BE AWARE OF RESOURCES AND PREREQUISITES	<p>*Present a competitive offer to the foreign customer e.g. special and demonstrable expertise, high quality and competitive products; the exporter has to define its effective supply i.e. real competitive capabilities should be highlighted rather than promoting services or products that could not be effectively delivered.</p> <p>*Strengthen capacity to demonstrate advantages and competitiveness. Be sure that resources required for export promotion and development are available: time, financial resources, senior people involved, strong willingness of the company</p> <p>*Be prepared for a long term commitment: entrants to a foreign market should be prepared to commit and maintain substantial time and resources to the marketing and development effort.</p>	<p><i>Industrial associations, ISTC and EAITC have a number of relevant publications and services that could help a firm to prepare for this planning phase</i></p>

MAJOR STEPS	DETAILS	GOVERNMENT SUPPORT TO CONSIDER
DEFINE MARKET	<ul style="list-style-type: none"> *Select country target. *Identify the market potential and relevant niches: assess local demand, supply trends, strengths of local competition. *Identify local constraints: economic and social constraints (payment terms, unionization, cost of labour, profit margins compared to risks), political constraints such as protectionist policies and public calls for tenders, taxing (income and business taxes) and currency change policies, liability risk (professional, environmental and business), procedures to obtain temporary entry and working status. *Identify effective demand on which the firm should focus; (effective demand is that which is backed up with political will and the economic capacity to pay for its satisfaction) *Identify key domestic players 	<p><i>Start an internal market intelligence center gathering relevant information from subscriptions to local professional magazines and business publications, industrial associations, Canadian representatives (ISTC, EAITC) and local Canadian trade commissions.</i></p> <p><i>Visit the country in order to "feel" it; an efficient way to do it is to attend a trade fair as a visitor or to participate in a trade mission supported by the Canadian industrial associations and EAITC.</i></p>

MAJOR STEPS	DETAILS	GOVERNMENT SUPPORT TO CONSIDER
<p>Before going alone, consider piggy backing or joint venturing with Canadian firms in order to:</p>	<ul style="list-style-type: none"> *Reinforce the offer to the customer with add-on value. *Pull together resources. *Benefit from the knowledge, experience and connections of Canadian firms that already have an experience with the target country. 	<p><i>Be proactive by assessing the ideal partner and the kind of agreement that can be mutually profitable;</i></p> <p><i>Listen to export successes from the industrial associations, ISTC and EAITC.</i></p>
<p>Plan actions to penetrate the market</p>	<ul style="list-style-type: none"> *Do your homework: product adaptation to local standards, preparation of accurate commercial documentation in the foreign language and according to the practices of the target country. *Obtain required licensing. *Join the local associations and relevant committees in Canada. *Attend conventions and trade fairs, first as a visitor then as an exhibitor. 	<p><i>Obtain available information from Canadian companies having experience in the target country, industrial associations and Canadian officials.</i></p>

MAJOR STEPS	DETAILS	GOVERNMENT SUPPORT TO CONSIDER
Define a strategy according to the target market and available resources	<ul style="list-style-type: none"> *Direct export either for a local or a Canadian customer *Export via existing distribution channels or representatives *Strategic partnering, joint venture and other kinds of agreements: when making a joint venture with a Canadian company, a local firm knows that it takes the risk in order to educate a potential competitor for the future. To be interested in doing it, the local firm has to be convinced that the Canadian company brings special expertise or products and is dedicated to establishing a mutually profitable relationship in the long run. Gather sufficient data to be sure to choose the right local partner, whether for representatives, distributors or joint venture partners. * Establishing a local subsidiary: buying an existing company or starting a new company. 	<i>Benefit from the experience, advice and connections from your peers and from the Canadian officials in Canada and abroad (Canadian Embassies and Consulates, provincial ministries - Industry and Commerce, External Affairs or International Trade offices, industrial associations, COFI...).</i>

APPENDIX 1

REFERENCES

Appendices

U.S.A.

Industry associations

National Association of Home Builders (NAHB), Washington, D.C.

NAHB Remodelers Council, Washington, D.C.

Associated General Contractors, Washington, D.C.

National Association of the Remodeling Industry, Arlington, Virginia

International Remodeling Contractors Association, West Hartford, Connecticut

National Kitchen & Bath Association, Hackettstown, New Jersey

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ENR Magazine, McGraw-Hill

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U.S.A.

List of interviewees

Peter Drabble, First Secretary and Manuel Ellenbogen, Commercial Officer, Trade and Investment Development, Canadian Embassy in Washington

Martin Robichaud, Commercial Officer, Canadian Consulate General in Boston

Natalie E. Cornell, Commercial Officer, Canadian Consulate General in Chicago

William Stolz, Commercial Officer, Canadian Consulate General in Atlanta

Maria Bernard, Vice Consul and Assistant Trade Commissioner, Canadian Consulate General in Los Angeles

Timothy G. Kehoe, Director of Research and Education, The Royal Architectural Institute of Canada, Ottawa

Barbara K. Martin, Executive Director, Building Systems Councils, National Association of Home Builders, Washington D.C.

Mexico

Industry associations

National Chamber for the Construction Industry (Camara Nacional de la Industria de la Construcción - CNIC): leading Mexican construction companies

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International Business Plan - construction sector , Industry, Trade and Technology, Ontario

List of interviewees

Marcel Lebleu, Commercial Officer, Latin America and Caribbean Trade Division, External Affairs Canada

Georges Bélanger, Commercial Officer, Canadian Consulate General in Mexico

Japan

Industry associations

Federation of Construction Material Industry (FECMI), Tokyo

Associated General Contractors of Japan, Tokyo

Japan 2 X 4 Home Builders Association

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"Industrialized Housing: The Japanese Experience" prepared by James McKellar, Professor, University of Calgary for the Alberta Department of Housing, December 1985, 187 pages

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Peter Campbell, Director, MR. Wayne House, Commercial Officer, Japan Trade Development Branch (PNJ) External Affairs Canada

David Ireland, Second Secretary, Trade Division, Canadian Embassy in Tokyo

Germany

Industry associations

Hauptverband des Deutschen Bauindustrie (Bauhauptgewerbe)

Central Verband des Deutschen Baugewerbes (Ausauptgewerbe)

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List of interviewees

George T. Phillips, Commercial Officer, Trade, Investment and Technology Division, Western Europe Bureau, External Affairs Canada

Michel Tetu, Consul and Trade Commissioner, Canadian Consulate General in Berlin

Wolfgang Schefczyk, Commercial Officer, Canadian Consulate General in Dusseldorf

Richard Pelletier, KANO, Frankfurt, Germany

Spain

Industry associations

Sindicato de Empresas de Obras Publicas de Ambito Nacional (SEOPAN): represents the 50 major contractors

Asociacion National de Promotores-Constructores de Edificios (APCE): composed of 52 provincial associations which represent property developers and builders

Confederacion Nacional de la construccion (CNC): represents the rest of the industry and more than a hundred trade associations, mainly regional

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List of interviewees

Luc Santerre, Commercial Officer, Trade, Investment and Technology Division, Western Europe Bureau, External Affairs Canada

René-Francois Désamorcé, Consul and Trade Commissioner, Canadian Consulate General in Barcelona

Eliseo Temprano, architect, Principal, Temprano Associates Inc, Ottawa

France

Relevant organizations

Ministère de l'équipement et du logement, Direction des Affaires Economiques et Internationales (DAEI)

Fédération Nationale du Batiment (FNB)

Union nationale des constructeurs de maisons individuelles

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List of interviewees

Jean-Pierre Hamel, Commercial Officer, Trade, Investment and Technology Division, Western Europe Bureau, External Affairs Canada

Chantal Balas, Commercial Officer, Canadian Embassy in Paris

Jean-Pierre Vergnaud, directeur marketing, CTBA, Paris

APPENDIX 2

CONTACTS FOR FEDERAL ASSISTANCE

ISTC BUSINESS SERVICE CENTRES

These centres have been established at Headquarters and in every Regional Office to provide clients with a gateway into the complete range of ISTC services, information products, programs and expertise.

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BUSINESS OPPORTUNITIES SOURCING SYSTEM

The Business Opportunities Sourcing System (BOSS) contains basic information on over 27 000 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 Centres

or

Business Opportunities Sourcing System
Service Operations Directorate
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Fax: (613) 954-1894

BUSINESS SERVICE CENTRES

Located across Canada, the centres provide the business community with access to the complete range of departmental services, information products, programs, expertise and internal and external contacts. These include: reference and video libraries; publications; industry sector profiles and market intelligence reports; access to computer data bases such as BOSS; data bases to help find appropriate technologies; and self-diagnostic software programs to assist in identifying technology, and market and business opportunities. The Business Service Centres also provide publications and videos on proven management practices, directories of Canadian research centres, foreign market profiles, how-to guides, business statistics, and information on international trade fairs and conventions.

Contact: ISTC Business Service Centres

FOREST INDUSTRIES — COOPERATIVE INDUSTRIAL AND MARKET DEVELOPMENT PROGRAM

This is a joint program involving the Government of Canada, the provinces and the secondary wood products industry in Canada. It is a five-year, cost-shared program that fosters the industrial development of the manufactured wood products sector and the expansion and diversification of export markets. Currently, an agreement exists with British Columbia and the British Columbia Wood Specialties Group.

Contact: ISTC Business Service Centres

or

Sector Strategy and Value-Added Products Division
Forest Industries Branch
Industry, Science and Technology Canada
235 Queen Street
OTTAWA, Ont.
K1A 0H5
Tel.: (613) 954-3026
Fax: (613) 954-3079

FOREST INDUSTRIES — COOPERATIVE OVERSEAS MARKET DEVELOPMENT PROGRAM

This program is based on tripartite agreements involving the governments of Canada and individual provinces, and certain wood products industry associations. The key objective of the agreements is to expand and protect overseas markets for solid wood products. Efforts are concentrated on developing new markets, protecting existing markets, identifying new product opportunities and monitoring attempts in foreign countries to introduce tariff and non-tariff barriers against the import of Canadian goods and services. Currently, agreements exist that involve British Columbia, Alberta, Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland.

Contact: ISTC Business Service Centres

or

Wood Products Division
Forest Industries Branch
Industry, Science and Technology Canada
235 Queen Street
OTTAWA, Ont.
K1A 0H5
Tel.: (613) 954-3032
Fax: (613) 954-3079

FOREST INDUSTRIES — R&D AND INNOVATION PROGRAM

This program is designed to enhance the international competitiveness of the forest products and allied industries. Shared cost assistance of up to 50 percent of eligible costs can be provided to alliances of companies, R&D organizations and/or universities for high-risk technology development and technology application projects.

Contact: ISTC Business Service Centres

or

Technology Development and Programs Division
Forest Industries Branch
Industry, Science and Technology Canada
235 Queen Street
OTTAWA, Ont.
K1A 0H5
Tel.: (613) 954-3059
Fax: (613) 954-3079

FOREST INDUSTRIES — TIMBER FRAME CONSTRUCTION

This program is designed to enhance the export sales of Canadian manufactured housing, wood products and building materials through demonstration housing projects in high priority markets. Assistance is provided to wood products and building materials associations or consortia of companies to undertake demonstration housing and development projects.

Contact: ISTC Business Service Centres

or

Sector Strategy and Value-Added Products Division
Forest Industries Branch
Industry, Science and Technology Canada
235 Queen Street
OTTAWA, Ont.
K1A 0H5
Tel.: (613) 954-3026
Fax: (613) 954-3079

REGIONAL INTERNATIONAL TRADE CENTRES

Newfoundland

St. John's

International Trade Centre
215 Water St., Suite 504
P.O. Box 8950
St. John's, Newfoundland
A1B 3R9
Telephone: (709) 772-5511
Fax: (709) 772-2373
Telex: 016-4749

Prince Edward Island

Charlottetown

International Trade Centre
Confederation Court Mall
134 Kent Street, Suite 400
P.O. Box 1115
Charlottetown, P.E.I.
C1A 7M8
Telephone: (902) 566-7400
Fax: (902) 566-7450
Telex: 014-44129

Nova Scotia

Halifax

International Trade Centre
Central Guarantee Trust Building
1801 Hollis Street
P.O. Box 940, Station M
Halifax, Nova Scotia
B3J 2V9
Telephone: (902) 426-7540
Fax: (902) 426-2624
Telex: 019-22525

New Brunswick

Moncton

International Trade Centre
Assumption Place
770 Main Street
P.O. Box 1210
Moncton, New Brunswick
E1C 8P9
Telephone: (506) 851-6452
Fax: (506) 851-6429
Telex: 014-2200

Quebec

Montreal

International Trade Centre
Stock Exchange Tower, Suite 3800,
800 Victoria Square
P.O. Box 247
Montreal, Quebec
H4Z 1E8
Telephone: (514) 283-8185
Fax: (514) 283-8794
Telex: 055-60768

Ontario

Toronto

International Trade Centre
Dominion Public Building, 4th Floor
1 Front Street West
Toronto, Ontario
M5J 1A4
Telephone: (416) 973-5053
Fax: (416) 973-8161
Telex: 065-24378

Manitoba

Winnipeg

International Trade Centre, 8th Floor
330 Portage Avenue
P.O. Box 981
Winnipeg, Manitoba
R3C 2V2
Telephone: (204) 983-8036
Fax: (204) 983-2187
Telex: 07-57624

Saskatchewan

Saskatoon

International Trade Centre
119-4th Avenue South, Suite 401
Saskatoon, Saskatchewan
S7K 5X2
Telephone: (306) 975-5315
Fax: (306) 975-5334
Telex: 074-2742

Regina

International Trade Centre
1955 Smith Street, 4th Floor
Regina, Saskatchewan
S4P 2N8
Telephone: (306) 780-5020
Fax: (306) 780-6679
Telex: 071-2745

Alberta

Edmonton

International Trade Centre
Canada Place, Suite 540
9700 Jasper Avenue
Edmonton, Alberta
T5J 4C3
Telephone: (403) 495-2944
Fax: (403) 495-4507
Telex: 037-2762

Calgary

International Trade Centre
510 - 5th Street S.W., 11th Floor
Calgary, Alberta
T2P 3S2
Telephone: (403) 292-6660
Fax: (403) 292-4578

British Columbia

Vancouver

International Trade Centre
Scotia Tower, Suite 900
650 West Georgia Street
P.O. Box 11610
Vancouver, British Columbia
V6B 5H8
Telephone: (604) 666-0434
Fax: (604) 666-8330
Telex: 04-51191

Yukon

Whitehorse

Industry, Science and Technology Canada (ISTC)
108 Lambert Street, Suite 301
Whitehorse, Yukon
Y1A 1Z2
Telephone: (403) 668-4655
Fax: (403) 668-5003

Northwest Territories

Yellowknife

Industry, Science and Technology Canada (ISTC)
Precambrian Building, 10th Floor
4922-52nd Street, P.O. Box 6100
Yellowknife, Northwest Territories
X1A 2R3
Telephone: (403) 920-8568
Fax: (403) 873-6228

External Affairs and International Trade Canada

Export and Investment
Programs Division (TPE)
External Affairs and
International Trade Canada
125 Sussex Drive
Ottawa, Ontario
K1A 0G2
Telephone: (613) 944-0018
Fax: (613) 995-5773
Telex: 053-3745

Info Export (BPTE): for general trade
inquiries
External Affairs and
International Trade Canada
125 Sussex Drive
Ottawa, Ontario
K1A 0G2
Telephone: (613) 993-6435
Fax: (613) 996-9709
Hotline Service: 1-800-267-8376

GEOGRAPHIC TRADE DIVISIONS

EAITC has five geographic branches. Within these, geographic trade divisions provide advice and information about doing business in a particular country or region of the world. Trade officers for individual countries can: identify promising export markets, help companies prepare for visits to potential markets, arrange participation in trade fairs, and involve exporters in visits to Canada by foreign buyers.

Contacts (Please identify the appropriate division and acronym in all correspondence):

External Affairs and International Trade Canada
125 Sussex Drive
Ottawa, Ontario
K1A 0G2

AFRICA AND MIDDLE EAST

Africa Trade Development Division (GAT)

Countries: Algeria, Angola, Benin, Botswana, Burkina-Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comores, Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zaire, Zambia, Zimbabwe

Enquiries: (613) 990-6593

Over ►

Canada



External Affairs and
International Trade Canada

Affaires extérieures et
Commerce extérieur Canada

WIN EXPORTS

The World Information Network for Exports — **WIN Exports** — is a computerized international sourcing system.

It currently lists over 30 000 Canadian firms and includes for each: products and services available for export, foreign markets/countries in which the firm is currently active or is considering and contacts within the company responsible for export activities.

All entries are accessible only to EAITC or other trade officials active in identifying export trade opportunities.

Using WIN Exports, EAITC trade development officers can:

- identify Canadian suppliers able to respond to sales opportunities in the officer's territory
- identify Canadian suppliers best suited to participate in departmental trade promotion activities
- make appropriate contacts on behalf of Canadian companies
- report back with advice to help them make informed decisions.

WIN Exports companies automatically receive CanadExport, the department's trade newsletter. If companies are registered on the Business Opportunities Sourcing System (BOSS) — a domestic sourcing system operated by Industry, Science and Technology Canada — they are automatically registered in WIN Exports. Registration in WIN Exports or BOSS is required for PEMD funding (see Index).

To apply for WIN registration, return the enclosed form. **For more information, contact the International Trade Centre nearest you (see Index) or:**

Trade Information Systems and WIN Division
(TPP)
External Affairs and International Trade Canada
125 Sussex Drive
Ottawa, Ontario K1A 0G2
Telephone: (613) 996-7182

Over ▷



External Affairs and
International Trade Canada

Affaires extérieures et
Commerce extérieur Canada

Canada

Middle East Trade Development Division (GMT)

Countries: Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Oman, Republic of Yemen, Qatar, Saudi Arabia, Syria, United Arab Emirates (UAE).

Enquiries: (613) 993-7040

ASIA AND PACIFIC

Asia Pacific South Trade Development Division (PST)

Countries: Afghanistan, Australia, Bangladesh, Bhutan, Brunei, India, Indonesia, Malaysia, Maldives, Myanmar, Nepal, New Zealand, Pakistan, Philippines, Singapore, South Pacific Islands, Sri Lanka, Thailand.

Enquiries: (613) 996-0917

East Asia Trade Development Division (PNC)

Countries: China, Hong Kong, Indochina, Korea, Taiwan (China)

Enquiries: (613) 992-7359

Japan Trade Development Division (PNJ)

Enquiries: (613) 995-1281

EUROPE

USSR and Eastern Europe Trade Development Division (RBT)

Countries: Albania, Bulgaria, Czechoslovakia, Hungary, Mongolia, Poland, U.S.S.R., Yugoslavia.

Enquiries: (613) 996-2858

Western Europe Trade, Investment and Technology Division (RWT)

Countries: Austria, Belgium, Cyprus, Denmark (incl. Greenland), Germany, Finland, France, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom.

Enquiries: (613) 995-9401

LATIN AMERICA AND CARIBBEAN

Caribbean and Central America Trade Development Division (LCT)

Countries: Bermuda, Commonwealth Caribbean, Costa Rica, Cuba, Dominican Republic, El Salvador, French West Indies, Guatemala, Haiti, Honduras, Netherlands Antilles, Nicaragua, Panama, Puerto Rico, Suriname.

Enquiries: (613) 996-7059

South America Trade Development Division (LST)

Countries: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, Venezuela.

Enquiries: (613) 996-5546

UNITED STATES

United States Trade and Investment Development Division (UTI)

Enquiries: (613) 991-5849

United States Trade and Tourism Development Division (UTO)

Enquiries: (613) 993-7343