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OPPORTUNITIES IN MEXICO: GEOMATICS SERVICES




 Department of Foreign Affairs and International Trade
 Ministère des Affaires étrangères et du Commerce international
 Latin America & Caribbean Branch



M A R K E T P R O F I L E - M E X I C O

Market Profile – Mexico

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This market profile is designed to provide an overview of the market for **Geomatics Services** in Mexico. Although efforts have been made to avoid errors and inaccuracies in this document, it is not intended to be used as the only source of market information on this sector. We encourage the reader to use this publication as one of several resources for commercial dealings with Mexico.

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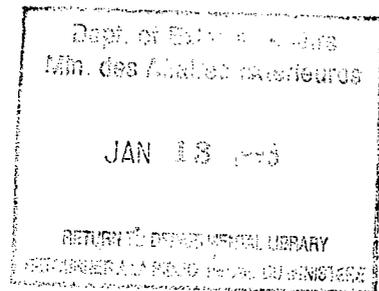
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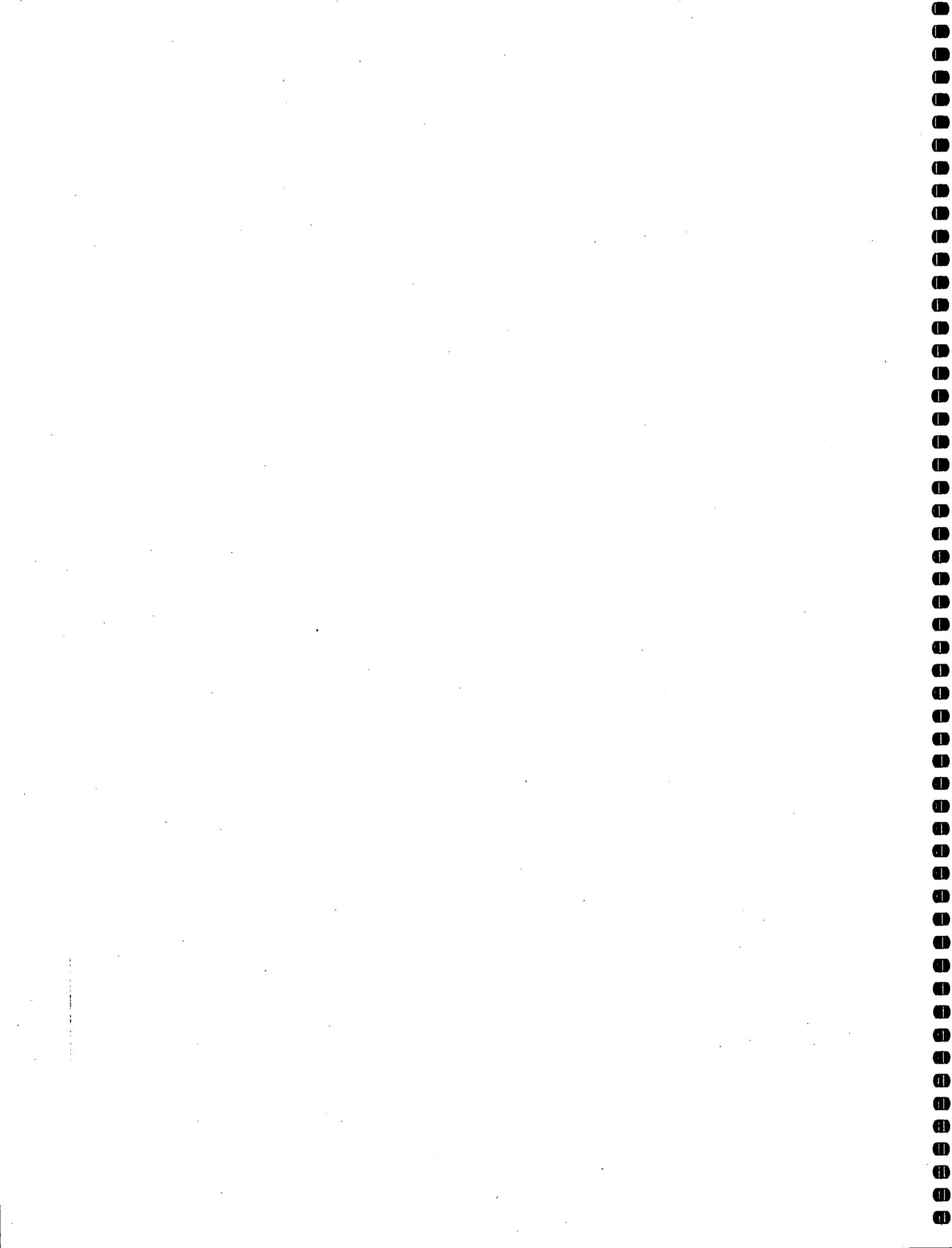
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OPPORTUNITIES IN MEXICO:

GEOMATICS SERVICES

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The Toronto office, in existence since 1962, is an integral part of the North American practice of the firm which includes nine offices in the United States and four in Mexico.

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Mexico



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The NAFTA expands Canada's free-trade area of 270 million people into a market of 360 million — a market larger than the population of the 15 countries of the European Union and one with a total North American output of \$7 trillion.

Mexico is Canada's most important trading partner in Latin America. Two-way merchandise trade with Mexico exceeded \$5.5 billion in 1994 and is expected to exceed \$7 billion by the end of the decade.

Canadian direct investment in Mexico is growing rapidly, increasing from \$452 million in 1992 to over \$1.2 billion in 1994.

This guide has been prepared with the problems inherent to the new exporter in mind. However, it is not exhaustive. The differing circumstances, interests and needs of individual companies will influence their strategies for the Mexican market.

Further assistance can be obtained by addressing requests to:

Department of Industry (DI) through the provincial International Trade Centres (see Where To Get Help) or contact the InfoCentre at:

Tel: 1-800-267-8376 or (613) 944-4000
Fax: (613) 996-9709
FaxLink: (613) 944-4500

InfoCentre Bulletin Board (IBB):
1-800-628-1581 or (613) 944-1581

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MAPPING MEXICO

Three-quarters of Mexico's geographic data is out of date. And, because of the lack of cadastral data, property taxes go largely uncollected.

Since the late 1980s, Mexico has been engaged in a sweeping endeavour to establish a market economy, modernize its industries and equip its producers to compete in global markets. The rebuilding of the nation's outdated infrastructure is a major part of this effort. Although a good deal has already been accomplished, progress has been severely hampered by a lack of geographic, demographic and cadastral information.

Cadastral surveys are those that identify every discrete plot of land by owner. They are used primarily for land-use zoning and property taxation purposes. A cadastre is a public register of real property. The lack of adequate municipal cadastral data means that only a very small proportion of property taxes in Mexico are ever collected.

To compound the problem, almost 80 percent of the geographic information held by the *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute for Statistics, Geography and Informatics, is considered out of date. This creates major problems for the *Secretaría de Desarrollo Social (SEDESOL)*, Secretariat of Social Development, which is the largest user of geographic, demographic and cadastral information. *SEDESOL* is responsible for regional development planning, including the allocation of financial assistance to state and local governments. To fill the information gap, it has embarked on a massive program to completely re-map all of the cities included in the *Programa de las 100 Ciudades*, the 100 Medium Cities Program. Under that program alone, approximately US \$200 million will be spent by states and municipalities on cadastral projects by 1997.

The Mexican geomatics industry is underdeveloped, and lacks the capability and capacity to undertake all of this work. While the number of companies in the industry has grown, only a handful of them have the expertise and technology to bid on government tenders for integrated projects. In particular, only the largest firms have a capability for aerial mapping and surveying. These services are prerequisites for many projects, and the companies that provide them have a strong influence in the selection of geomatics technologies.

Canadian firms have the advantage that *INEGI* has agreed to adopt Canadian industry standards for cartographic services. This means that Canadian companies can operate in a familiar technical environment when they go to Mexico. Only about half of the municipalities involved in the regional development plan have digitized data of any kind, thus there is a substantial opportunity for Canadian firms.

There are no reliable estimates of the size of the Mexican geomatics market. According to officials of the *Banco Nacional de Obras y Servicios Públicos (BANOBRAS)*, National Bank for Construction and Public Works, the cadastral update program has a budget of N \$240 million pesos in 1995 and N \$320 million pesos in 1996. Industry observers estimate that this program constitutes half of the public sector market, which is 80 percent of the total market. This implies a total 1995 market of about N \$600 million pesos. Depending on where the peso stabilizes, that will be roughly US \$120 million.

THE 100 MEDIUM CITIES PROGRAM

As of 1994, US \$50 million has been spent on cadastral work, about 70 percent of it financed through the Banco Nacional de Obras y Servicios Públicos (BANOBRAS), the National Bank for Construction and Public Works.

One of Mexico's most pressing regional development problems has been ongoing migration from rural areas to the largest cities, especially Mexico City, Guadalajara, Monterrey and Puebla. Partly because of poor planning and the lack of information, urban growth has been almost completely uncontrolled, leading to severe environmental degradation and overloaded social services.

To counter these deleterious effects, the *Secretaría de Desarrollo Social (SEDESOL)*, Secretariat of Social Development, has embarked on a massive program to develop 114 medium-sized cities. Known as *Programa de las 100 Ciudades*, the 100 Medium Cities Program, it has the goal of creating an attractive alternative for rural migrants, to encourage balanced growth and to reduce environmental impacts.

The designated cities are distributed across all of Mexico's 31 states. The program encompasses infrastructure development, pollution abatement and the development of social service facilities. Each of the cities has been assigned to one of four project phases, depending on their priority for development. The program began in 1990, and the second phase was scheduled for completion in 1994.

The overall program is guided by full mapping and geographic zoning of each city. A copy of this information must be provided by the municipality to *SEDESOL*, which is building a large database. About one-quarter of the cities were mapped during the first two phases of the program. In each city, the typical project duration is three years from initial planning to completion of cadastral work.

The long-term goal is for these projects to be self-funding through increases in tax collection. Property taxes in Mexico go largely uncollected because of the lack of reliable cadastral data, and some estimates predict a 90 percent increase in tax collections as a result of the program. Private industry will eventually pay for about one-quarter of development costs. Initial funding and support is being provided by the federal government. The state or municipality usually provides

the funds for planning. Financing for execution of specific projects is provided by *SEDESOL* and by *BANOBRAS*. If *BANOBRAS* provides the funding, the cadastral plan must be prepared by a professional consultant. Initial plans typically cost between US \$70,000 and \$100,000 with full implementation running in the US \$3 million to \$10 million range. As of 1994, US \$50 million had been spent on cadastral work, about 70 percent of it financed by *BANOBRAS*.

The economic crisis, precipitated by the sharp devaluation of the peso in December 1994, left many states and municipalities too short of cash to fund their part of the program. *BANOBRAS* is considering increasing its share to keep the program going.

THE MEXICAN GEOMATICS SECTOR

Seven companies dominate the market for integrated projects. They make the major technological decisions and subcontract project components to about 40 smaller firms.

The Mexican geomatics industry has grown significantly over the past few years, and now consists of almost 50 companies. Seven companies dominate the municipal cadastral industry:

- *Sistemas de Información Geográfica (SIGSA)*
- *Digitalización y Cartografía Urbana (DICARTU)*
- *Servicios Catastrales (SERCA)*
- *Estudios Topográficos de México (ESTOMSA)*
- *Bufete de Estudios de Ingeniería (BEISA)*
- *Fotogrametría XXI*
- *Ingeniería Sistematizada (VIMEX)*

With 300 employees, *SIGSA* is the largest and is widely regarded as the industry leader.

These large companies provide integrated services including analysis, design, aerial mapping, integration, equipment, and software. They are often awarded turnkey contracts for large projects and in turn subcontract with about 40 smaller companies for project components. The smaller companies typically have around 10 employees and tend to use outdated technology. Generally, the larger companies engaged to conduct the aerial surveying and mapping have control over which geomatics technology will be used.

The market is segmented mainly by the level of integration of the product. No more than eight Mexican companies have the ability to provide a "total solution" package. For this reason, the market is characterized by a large amount of subcontracting. This configuration is encouraged by the fact that the larger companies have anticipated a market slowdown and are reluctant to expand, particularly in low-end cadastral work.

The largest companies also offer software packages to clients. In most cases, they are exclusive suppliers of particular packages, which are mostly imported. In general, clients tend to use the software that is provided by their supplier of choice, and do not evaluate alternative software choices.

SUBSECTORS

The geomatics sector can be divided into six main subsectors:

- project design
- aerial photography/satellite imagery
- restitution/correction of imagery
- digitization/data conversion
- fieldwork (surveying)
- geographical information systems (GIS) development

Demand is growing more in the advanced and specialized segments of the industry rather than in low-end applications. The municipal market is by far the largest market component. It has traditionally required relatively low levels of technology and service integration, but sophisticated methods and materials are beginning to find applications in this field.

Relatively complex offerings are normally required by state enterprises such as *Petróleos Mexicanos (PEMEX)*, the national oil company, and the *Comisión Federal de Electricidad (CFE)*, Federal Electricity Commission.

LABOUR

The public sector is by far the largest employer of geographical information systems (GIS) personnel. Government agencies are the primary buyers of GIS services, and this is where skills are initially developed. Most federal departments have their own GIS departments, but exact employment data by occupation is not available. The *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute for Statistics, Geography and Informatics, employs 38,000 people, although only 200 work in the geography department.

Innovation and development of specialized applications occurs mainly in the private sector, which tends to attract the most talented professionals. Industry observers believe that the private geomatics industry employs about 3,000 people. According to one expert, in Mexico there are only about 250 geomatics specialists with advanced skills.

Government jobs in this sector require at least a bachelor's degree, usually in engineering or geography. Private sector employees tend to be less experienced: students of architecture, topography or computer science are often recruited. Technicians are usually taken on as apprentices with a minimum Grade 12 equivalent education. The top specialists in both sectors have postgraduate degrees, usually from Europe, Canada or the United States, but few of them have experience in advanced systems integration or specialized application development.

TECHNOLOGY

It is useful to distinguish between two types of geographical information systems (GIS) technology. The first can be referred to as product technology. This is the technology embedded into the product, that affects how the customer will use it. The second is the process technology used to produce the product itself.

The Mexican market relies almost entirely on foreign product technologies. Industry participants are generally aware of emerging technologies and obtain them as needed from foreign suppliers. As a result, there are few product technology limitations, other than cost. On the other hand, end-user requirements often do not call for state-of-the-art technology. For example, some smaller companies are still using AUTO-CAD software. Successful foreign suppliers adapt their technologies to these varying requirements, to make sure that their product technologies do not exceed customer needs.

On the other hand, process technologies are, generally, poorly developed in Mexico. This is partly due to the lack of experience of Mexican companies, many of which have been created during the past two or three years.

According to officials of *Banco Nacional de Obras y Servicios Públicos (BANOBRAS)*, National Bank for Construction and Public Works, ARC-INFO is the most popular software package. Standard Queries Language (SQL) is also widely used to develop applications. SQL is distributed by *Ingeniería Sistemizada (VIMEX)*, and ARC-INFO by *Sistemas de Información Geográfica (SIGSA)*. A Spanish-made package, distributed by *Estudios Topográficos de México (ESTOMSA)*, has also been successful, partly because of its use of the Spanish language. Although AUTO-CAD has been popular in the past, it is now being displaced by more sophisticated technologies.

Mexican users recognize that these popular process technologies are not the most advanced available. But they are often preferred as a simple and low-cost solution. In general, the market has been slow to accept high-technology products. This is partly because of cost considerations and partly because GIS technology is not always fully understood by decision makers. This is gradually changing, and Canadian suppliers can sell high-technology solutions if they are properly presented.

Digitalización y Cartografía Urbana (DICARTU) is the only Mexican company that markets its own GIS package, under the name of *AUDOS*. The system is not compatible with the more traditional GIS packages, which has impeded its market acceptance. *DICARTU* is now re-working the system to make it more flexible. Another company, *Sistemas Ortofotogramétricos Ingeniería Aplicada (SOFIA)* is reportedly developing another Mexican software package.

Advanced photographic and remote sensing equipment is scarce in Mexico. The industry leader, *Sistemas de Información Geográfica (SIGSA)*, uses old German cameras in its aircraft. In general, photographic and production equipment is European, and software/technology is from the United States. IBM and HP products are the most popular hardware choices. Satellite services are entirely imported, and generally come from French or American sources. The *Comisión Federal de Electricidad (CFE)*, Federal Electricity Commission, has shown some interest in Russian satellite services.

Two companies are active in the remote sensing and spatial data markets. *NIVELES* distributes Landsat satellite imagery and *COSMOCOLOR* provides Spot satellite imagery. Neither uses domestic technology.

INTEGRATION

The geographical information systems (GIS) subsector does not involve any formal horizontal linkages. Nonetheless, this is a very small field in Mexico and the leaders of the largest companies know each other very well. There are also frequent subcontracts between these companies. These informal linkages are reinforced by the frequent interchange of staff between the major suppliers and buyers.

There is only one example of vertical integration. *Ingenieros Civiles Asociados (ICA)* is a full service engineering company which is active in several sectors including transportation, environment, construction and geomatics. If *ICA* is involved in cadastral updates, in principle it has an advantage in related infrastructure development projects. Reportedly however, *ICA* is now refocussing on its core businesses and is reducing its geomatics activities.

THE ROLE OF IMPORTS

Increasing technological sophistication is slowly shifting the import market towards advanced services.

There are no reliable data to indicate the size of the import market for geomatics goods and services, nor the market shares of the various competitors. Goods are not segregated in the official trade data, and services are not counted at all.

Industry participants believe that the import share for goods is about 90 percent. The principal sources of imports are the United States, France, Germany, Austria and Switzerland. Canada appears to have a small but growing market share. One expert estimated the Canadian share of imports at 5 percent.

Aerial photographic equipment, photogrammetric processing equipment, digitizing tablets, satellite imagery and processing equipment are all imported. Locally developed software programs enjoy the advantage of operating in Spanish, but in general, they are perceived as inferior to foreign products.

Imports of services, on the other hand, appear to have been limited except in highly technical areas. Foreign participation in aerial mapping has been limited to isolated instances of Texan and Californian firms crossing the border for small contracts. The main exceptions are a few large geographical information systems (GIS) installations for government agencies. Satellite imagery and related data processing is almost completely dominated by the U.S. and France, because of their Landsat and Spot satellites.

Many experts believe that Mexico needs more foreign services, especially in the areas of project design, systems integration, production techniques and spatial data conversion. Those Mexican companies wishing to maintain a competitive advantage will need to complement their existing technologies with imported services. An example is the joint venture between *Bufete de Estudios de Ingeniería (BEISA)*, and QC Data of Alberta. This partnership is developing a land registry system for four Mexican states. Also, TerreNet, an Ontario company, is working with Mexican partners in Nuevo León.

CANADIAN PARTICIPATION

Canadian companies have enjoyed some significant successes in the Mexican geographical information systems (GIS) market. There have been two notable Canadian projects.

The first was the installation of the GIS for the *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute for Statistics, Geography and Informatics. This C \$22 million project was awarded to a Canadian consortium led by SNC Lavalin and backed by Natural Resources Canada. This project is now complete and running well.

The second project was the installation of the Canadian SPANS software into the *Secretaría de Desarrollo Social (SEDESOL)*, Secretariat of Social Development. Observers note that this software was chosen for its low cost and not for its technical sophistication. It does not, therefore, necessarily create any ongoing opportunities.

In the view of many Mexican experts interviewed for this profile, Canadian companies have not taken full advantage of these successes. The majority of cadastral systems are still based on American or Spanish software. Interestingly, few of the Mexican firms interviewed for this study were aware that the *INEGI* system is Canadian.

CUSTOMERS

Governments account for 80 percent of the market, but private firms choose the technologies and drive new projects.

The major buyers of geomatics services are municipal and state governments. They use this geographic information for property taxation and municipal administration. The *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute for Statistics, Geography and Informatics, is the main provider of geographical, demographic and economic information for the nation as a whole. These organizations supply information to the *Secretaría de Desarrollo Social (SEDESOL)*, Secretariat of Social Development, which uses it to manage the nation's system of intergovernmental financial assistance. Officials of the *Banco Nacional de Obras y Servicios Públicos (BANOBRAS)*, National Bank for Construction and Public Works, estimate that the public sector accounts for about 80 percent of the geographical information systems (GIS) market. Other estimates put cadastral update programs at half of the public sector market.

Purchasing decisions are not left entirely in municipal and state hands. *SEDESOL* and *BANOBRAS* both impose their own conditions for financial assistance and *INEGI* plays a role in setting technical standards. The need for technological compatibility is a driving force behind purchasing decisions. The lack of such compatibility in the past is blamed for many of the shortcomings of existing data, and officials seem determined to correct this situation. For example:

- *INEGI* is responsible for producing all of Mexico's maps. It is presently developing an integrated, national GIS based on Canadian cartographic standards. *INEGI* is faced with budget constraints arising from the peso devaluation and the subsequent cuts in public spending.

- *SEDESOL* is responsible for social development, including the administration of financial assistance plans for state and municipal governments. It maintains a large database incorporating geographic, demographic and economic information. *SEDESOL* is using Canadian SPANS software.
- *BANOBRAS* finances half of municipal cadastral projects that fall under the 100 Medium Cities Program, and up to 100 percent under its own cadastral program.
- The *Comité de Informática de la Administración Pública, Estatal y Municipal (CIAPEM)*, Committee for Public Administration of State and Municipal Informatics, is trying to facilitate the integration of geomatics systems and data. Its focus is on setting standards for software and information systems.

In early 1995, the government created a new department called *Secretaría del Medio Ambiente, Recursos Naturales, y Pesca (SEMARNAP)*, Secretariat of Environment, Natural Resources and Fisheries. It has taken over responsibility for the environment from *SEDESOL*, and it will manage the nation's forest, mineral and fishery resources. In addition, the *Comisión Nacional del Agua (CNA)*, National Water Commission, and the *Instituto Mexicano de Tecnología del Agua (IMTA)*, Institute for Water Technology were transferred to *SEMARNAP* from *Secretaría de Agricultura y Recursos Hidráulicos (SARH)*, Secretariat of Agriculture and Water Resources. *SEMARNAP* may become a significant user of GIS technologies, but it is still in the process of re-organization, and the amount of influence it will have is still uncertain. Many observers believe that the agencies under *SEMARNAP* jurisdiction will retain considerable autonomy over their own purchases.

The agencies accountable to *SEMARNAP* include *Petróleos Mexicanos (PEMEX)*, the national oil company, the *Comisión Federal de Electricidad (CFE)*, Federal Electricity Commission, and the *Comisión Nacional del Agua (CNA)*, National Water Commission.

Several other government agencies and state-owned companies are also users of GIS products and services. They include, *Puertos Mexicanos*, Mexican Port Authority, the *Secretaría de Agricultura, Ganadería y Desarrollo Rural (SAGAR)*, Secretariat of Agriculture, Livestock and Rural Development, the *Secretaría de Comunicaciones y Transportes (SCT)*, Secretariat of Communications and Transportation, and *Departamento del Distrito Federal (DDF)*, Department of the Federal District.

The private sector market is small and scattered. *Teléfonos de México (Telmex)*, the national telephone company, is the major private sector buyer of GIS. So far, its purchases have been limited. In 1996, telephone competition will be permitted for the first time, which may help to expand this market. Tourism development is another source of potential demand. Banks and retail franchisers are not yet using GIS technologies as they do in Canada, but they are prospects for future business.

So far, *INEGI* has not been able to meet all of the requirements of organizations that need GIS information. This has forced them to establish their own in-house programs. For example, the *CFE* tried to obtain geographic information from *INEGI*, but was unable to get what it needed. Instead, it purchases data from municipalities that have participated in the *BANOBRAS/SEDESOL* cadastral update programs.

BANOBRAS officials say that even after the current cadastral modernization program is completed, state governments will continue to dominate the market for geomatics goods and services. They note that of the 2,406 municipalities in Mexico, approximately 400 are large enough to require advanced GIS systems. But only 200 have implemented any degree of computerization of these systems. Given that cadastral GIS systems represent a recoverable investment, *BANOBRAS* expects that state governments will continue to work in this area.

Federal and municipal governments as well as state-owned companies each have different goals and, therefore, demand different products:

- Municipalities want GIS for cadastral updates and improved tax flows. They do not need advanced systems to accomplish this.
- *Paraestatales*, state-owned companies, such as the *CFE* and *PEMEX*, use GIS for detailed strategic and logistical planning. They need finely tuned information systems.
- *INEGI* and other federal government departments are interested mainly in accumulating and operating large databases.

Although governments are the primary buyers of geomatics products, the private sector drives the market. In contrast to the experience in Canada, government programs are not normally internally initiated. Typically, a private sector company develops a proposal and then presents it to the public sector buyers. The private sector role may soon extend to financing and operating the project under a build-operate-transfer (BOT) scheme. For example, in Chiapas, *Sistemas Geográficos Digitales* is trying to sell a cadastral BOT project to the state.

Contacts and personal relationships are even more important in the public sector than in the private sector. Therefore, well-connected partners are essential. High profile projects such as those sponsored by the *INEGI* and *SEDESOL* can be sometimes sourced from abroad, but others must be obtained through a local presence in Mexico. Many public sales are similar and recurring, which can create economies of scale.

Tendering rules vary for federal, state and municipal procurements. A typical tender call is summarized in the regulatory section of this profile. In general, a local presence is needed to make successful bids. In fact, some government entities require that the bidder has an office in their state, or at least be prepared to establish one. Projects financed by *BANOBRAS* require that companies have a representative office in Mexico. The best prospects are cities slated for development under phases 3 and 4 of the *Programa de las 100 Ciudades*, the 100 Medium Cities Program.

100 MEDIUM CITIES PROGRAM PRIORITY LOCATIONS FOR PHASES 3 AND 4

State	Cities	Phase
Aguascalientes	Aguascalientes	3
Baja California	Ensenada	4
	Mexicali	4
	Tecate	4
	Tijuana	4
Baja California Sur	Los Cabos	3
Campeche	Campeche	3
	Ciudad del Carmen	3
Coahuila	Ciudad Acuña	4
	Ramos Arizpe, Arteaga	4
Colima	Villa de Alvarez	4
	Manzanillo	3
Chiapas	San Cristóbal de las Casas	3
	Tapachula	3

BANOBRAS

Since 1987, *Banco Nacional de Obras y Servicios Públicos (BANOBRAS)*, National Bank for Construction and Public Works, has managed its own Cadastre Modernization Program, designed to assist Mexican states to update their information systems. The objective is to increase the tax revenues and to facilitate more effective urban planning. *BANOBRAS* offers credits of up to 100 percent of the cost of modernization programs.

In 1992, as part of the *Programa de las 100 Ciudades*, 100 Medium Cities Program, the *Secretaría de Desarrollo Social (SEDESOL)*, Secretariat of Social Development, established its own cadastral program, which is focussed on key municipalities in each state. Where this program applies *SEDESOL* provides half of the funds as a grant and the other half is provided by *BANOBRAS*. Projects normally involve a full range of services, including project development and definition studies, aerial mapping, purchase of technology and training municipal staff.

This program has driven the growth of the geomatics sector over the past several years. About 70 percent of the *BANOBRAS* credits allocated to the joint program with *SEDESOL* had already been distributed by the beginning of 1995. But applications for the *BANOBRAS* Cadastre Modernization Program are still being accepted and ten credits were authorized in the first quarter of 1995 alone. Eventually, a more cyclical growth pattern will be established, with updates and maintenance becoming the driving forces.

Although cadastral programs are located in the cities, credits are normally disbursed to state governments, which then coordinate activities for all cities within their boundaries. There have been exceptions, however, and several cities have run their own cadastral update programs. Disbursements are based on two project phases:

- Phase 1 is planning and preparation. It develops objectives and strategies for a cadastral update. The deliverable is a project planning report which is used to support the application for funding to *BANOBRAS* for the second phase. Typically, the report includes a definition of the problem, a modernization strategy, an action plan and a fiscal impact study. Normally a company with expert knowledge and experience in geographical information systems (GIS) and cadastral methods is required. The budget for this phase is usually in the range of US \$5,000 to \$70,000.
- Phase 2 is implementation of the plan developed in Phase 1. Budgets run in the range of US \$2 million to \$7 million per state. Surveying is often tendered separately from hardware purchases and consulting work.

Canadian companies can participate in this program as long as they maintain a legal presence in Mexico. This can be done through a representative or a joint venture. The tender of both phases must conform with *Ley de Adquisiciones, Arrendamientos y Prestación de Servicios Relacionados con Bienes Muebles y su Reglamento*, the primary purchasing law.

Tenders are usually organized by the states. Although they are published in the *Diario Oficial*, the Official Gazette, and in state newspapers, they are frequently by invitation only. *BANOBRAS* has a directory of companies active in cadastral work for consultation by project implementers. Suppliers must be approved by *SEDESOL* and/or *BANOBRAS*, depending on the funding arrangement.

FEDERAL ELECTRICITY COMMISSION

The *Comisión Federal de Electricidad (CFE)* is Mexico's principal electricity utility. The *CFE* is responsible for generating and distributing electricity to all areas of Mexico except for the Valley of Mexico, where the *Compañía de Luz y Fuerza del Centro (LyF)*, Central Light and Power Company, provides the equivalent services. Given the nature of *CFE*'s business, as well as the expanse of territory where it provides service, geographical information systems (GIS) and geomatics are critical components of both planning and operations.

According to the *CFE* officials interviewed for this profile, the utility has fairly advanced GIS technologies and products. It is currently using the GENAMAP system for GIS, ORACLE for database development and management, and HOT as the database driver. The system also incorporates Cadpad by Asea Brown Boveri (ABB) to assist with distribution planning.

Digitizing work began in 1991, and until 1996 it will focus on urban areas. Geographic information is purchased from Mexican municipalities that have recently updated their cadastral systems. Digital data was collected for 15 cities in 1992, and by the end of 1994, more than 100 cities had been completed. Only about 10 percent of this data has been added to the database so far. Another 115 cities were scheduled for digitizing in 1995. Pilot projects for digitizing rural geographic information is scheduled to begin in 1995. To date this work has been completed internally, without reliance on external consultants. *CFE* officials believe that no advanced expertise is available in Mexico in this field.

The ultimate objective is to expand the database to include project design, construction, operations and maintenance functions. Some sales opportunities remain, including:

- The purchase of ge positioning systems (GPS) which is currently in negotiations with Motorola.
- The purchase of satellite images of urban areas for long-term planning of distribution networks. A pilot project was contracted to ABB in early 1995.
- The expansion of the database to assist with transformer line management. A tender call is expected in 1995.

A large amount of the *CFE* system design is done internally, but future purchases will focus on advanced technologies and services that are not available in Mexico. Procurement is conducted according to the *Ley de Obras Públicas y Adquisiciones*, the public purchasing law.

THE NATIONAL OIL COMPANY

Petróleos Mexicanos (PEMEX), the national oil company, plays a role in the Mexican geomatics market as both an end-user and a potential competitor. The *PEMEX* geomatics department, *Sistema Corporativo de Información Geográfica (SICORI)*, has recently begun working on a cost recovery basis within *PEMEX*. It is in the process of obtaining a mandate to compete directly with the private sector on non-*PEMEX* projects. Apparently *SICORI* has advanced technologies and capabilities, and this change could have a significant effect on the market. Although it has not yet been officially confirmed, *SICORI* has reportedly sold spatial data conversion services and topographical mapping services to the Mexican Armed Forces.

SICORI's plans to compete with the private sector has made it increasingly difficult to obtain specific information about its capabilities. Knowledgeable observers provided the following information.

SICORI's equipment purchase was tendered in 1991, and *Intergraph* was the winner for both the system components and the design services. The *Intergraph* platform, supported by microstations and ARC-INFO, is used for very specialized geomatics applications.

All database design has been done internally, but over the next year *SICORI* expects to tender US \$300,000 to \$400,000 worth of purchases. Tenders will be conducted under the normal *PEMEX* procurement process. Initial procurement projects will focus on advanced services and technology and, therefore, will involve mostly international tenders.

SICORI provides most geomatics services to *PEMEX* Exploration and Production Division, which is probably the largest user of such services within *PEMEX*. Two other divisions, *PEMEX* Petrochemicals and *PEMEX* Refining, have purchased their own geomatics equipment quite independently of *SICORI*. This equipment was purchased in collaboration with the *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute for Statistics, Geography and Informatics, the *Departamento del Distrito Federal (DDF)*, Department of the Federal District, and the *Secretaría de la Defensa Nacional (SDN)*, Secretariat of National Defence.

COMPETITION

The most intense competition is between foreign suppliers vying with each other for partnerships with the established Mexican firms.

The geomatics market in Mexico has expanded rapidly over the past three or four years, mainly because of financial assistance provided by the *Banco Nacional de Obras y Servicios Públicos (BANOBRAS)*, National Bank for Construction and Public Works, and *Secretaría de Desarrollo Social (SEDESOL)*, Secretariat of Social Development. Many new firms have entered the industry. Most of them are smaller and more regionally focussed than the established firms, and some of them have set up operations in the state capitals. These companies tend to have a narrow focus. Some of them take advantage of personal connections and concentrate on local projects. Others operate as subcontractors to the dominant players and provide components for large contracts.

The market is highly dependent on government spending cycles. It has recently been booming, due to extensive work from state governments. Over the next two years, however, many state governments will reach their immediate objectives in the geographical information systems (GIS) field, and new contracts will be concentrated in maintenance and updating. For example, the demand for aerial mapping services is expected to decrease by about 40 percent by the end of 1995.

Larger companies have been anticipating this slow-down, and have been careful not to let their staff levels rise too quickly. This is one reason for the prevalence of subcontracting, especially for the lower value-added elements. As a consequence, the smaller, regionally-based companies will suffer disproportionately when the industry slows down, because they will not be able to compete as primary contractors. These developments may make them more open to strategic alliances with foreign firms.

Some restructuring has already begun. *Ingenieros Civiles Asociados (ICA)*, has traditionally been a large player in the industry, with its own aerial-mapping capabilities. But it is pulling out of the GIS sector to focus on its core engineering business.

As this trend develops, GIS companies with resources and expertise are expected to diversify their offerings to expand into new markets. In particular, there will be an increased focus on the private sector.

Another characteristic of the Mexican GIS market is that certain foreign competitors have fairly entrenched positions. Most of the major Mexican suppliers of geomatics services have exclusive deals with American software providers, for example. Some European equipment manufacturers also have strong market positions based on joint ventures with Mexican suppliers.

Recent economic developments will accelerate the general trend towards privatization of government services. Government GIS centres may be forced to sell their GIS operations to the private sector, or they may start to compete with private companies, especially for government contracts. The GIS group at *Petróleos Mexicanos (PEMEX)*, the national oil company, is a good example.

In some ways, the pattern of subcontracting that characterizes this market makes it easier for Canadian firms to enter the market. There are few long-term bonds between companies in the industry, and displaced subcontractors will be looking for new associates. This is especially true where specialized technologies and services are needed.

MEXICAN COMPETITORS

Domestic competitors fall into two main categories. A relatively large number of companies offer basic services such as cadastral systems for states and municipalities. A few of the largest firms deal in more advanced projects involving the integration of a range of services.

The market is very competitive at the low end, where sophisticated services are not needed. The rise and fall of demand in specific submarkets has led to an extremely competitive market. Prices for municipal work have fallen sharply as a result. This trend will continue in the future.

At the high end, only the largest firms are competitive and even some of the largest do not have full capabilities. As a result, the level of competition in the advanced services component of the industry is not nearly as strong.

Even the largest Mexican firms cannot provide full services. For example, the *Comisión Federal de Electricidad (CFE)*, Federal Electricity Commission, considered using *Bufete de Estudios de Ingeniería (BEISA)*, for a systems design project. But in the end they decided that they did not have sufficient experience. They concluded that no Mexican company had sufficient experience to handle their work.

FOREIGN COMPETITORS

Some big buyers such as the *Departamento del Distrito Federal (DDF)*, Department of the Federal District, prefer to deal with large multinational companies because they provide guaranteed after-sales support. A common criticism of Mexican companies is that they do not have the expertise or human resources to provide adequate support.

Photogrammetric production equipment and cameras are mainly imported from Europe, particularly Germany. The United States dominates the software market, although one product comes from Spain. These countries are viewed as roughly equal competitors by Mexican buyers.

France and the U.S. dominate the market for satellite services, although both Russia and Canada are possible contenders for new projects.

Many of the most popular American products such as ARC-INFO and ERDAS are considered adequate and cost-effective, but not the best products available.

CANADIAN STRENGTHS

Several of the Mexican buyers and competitors who were interviewed for this profile said that while Canada is perceived as being very strong in technical expertise, it is not well-regarded commercially. They note that Canadian products have not been presented in their best light and that Canadian suppliers have failed to capitalize on their participation in potentially high profile projects.

The key market strength of Canadian companies is their ability to complete turnkey projects. Even the largest Mexican competitors have difficulty offering fully integrated services. Canadian companies can supply the full range of services, including project definition, aerial mapping, ground support, production, systems integration, analysis and training.

Canadian companies also have the ability to anticipate the market by identifying needs and responding to them with technical innovations. Build-operate-transfer (BOT) packaging is one of the best ways for these strengths to be delivered.

Other competitive strengths include a reasonable level of local market presence. Some Canadian companies have developed contacts and built relationships in the Mexican market.

Competition for Canadians in this market comes primarily from other foreign suppliers, not local companies. Canadian companies cannot compete on price with Mexican firms for low-technology projects. But many local firms are candidates for joint ventures with Canadian companies that can provide technology in exchange for market access.

In many sectors, Canadians are perceived as being more culturally sensitive and less aggressive than American firms, and therefore better business associates. While this perception exists in the environmental sector, it is also true that American companies have made an ongoing and permanent commitment to the market, and they have a track record of supporting their partners. In the minds of many buyers, this gives American competitors the ability to deliver practical solutions that are seen as largely theoretical in Canada's case.

There are many opportunities in this market for Canadian companies that are willing to adopt a medium- to long-term strategy. Nevertheless, the "first mover" advantage is important: several of the larger Mexican geomatics companies have already developed exclusive relationships with American or European technology suppliers.

TRENDS AND OPPORTUNITIES

The lull in equipment purchases caused by the economic crisis has opened a window of opportunity for product adaptation, new ideas and knowledge-based services.

Decision makers interviewed for this profile stressed the long-term need in Mexico for some sort of integration of geographical information systems (GIS). Ideally, all geographic information would be accessible through a single-server platform. Such a system might include cadastral information, the public registry, the registry of private property and voter databases, as well as other types of information. Clearly, this will be a long-term proposition, but it suggests a continuing trend towards database integration. Nuevo León and Puebla are already making moves in this direction, although concrete results will take some time.

Foreign GIS technologies are fairly well-known in Mexico. Buyers, particularly those in government, have not generally chosen the most advanced alternatives. The most successful suppliers are those who have adapted their products to less sophisticated buyers and applications. Mexico's geographic information needs are very large, given that an estimated 80 percent of geographic information is out of date, and the financial and human resources available to fill the gap are limited. Moreover, there is a tendency for decision makers to underestimate the value of geographic information. For these reasons, there is a preference for projects that are easy to implement and focussed on immediate needs. To a large extent, this limits the market for high technology solutions.

THE DEVALUATION

The new government of President Ernesto Zedillo came to power on December 1, 1994. Three weeks later it stopped supporting the overvalued peso. Within days, the peso had dropped in value by more than one-third. This caused a sharp decrease in purchasing power for all buyers of imported products. Government purchases will be cut back even further as a result of budget reductions associated with the recovery plan.

Except for cadastral updates, most geomatics projects are expected to be frozen until the economic situation stabilizes. Interest rates are as high as 60 percent per year, and no credit was being approved by government or private banks as of early 1995. Most observers hold the view that a settling period of several months will be needed before the financial sector resumes normal operations.

There are, however, some positive effects. First, geographic information is not currently used efficiently and governments will be forced to spend more carefully in the future. The increased use of geographical information systems (GIS) is one likely outcome. Second, GIS will increasingly be used in the private sector as a planning and management tool. Thus, over the next several years, the market for sophisticated technologies and services is likely to grow. Imports will continue to dominate this market because the economic crisis will make it even more difficult for Mexican companies to develop advanced capabilities on their own.

Working with a Mexican partner is even more important than ever because of the need to have a large proportion of project costs denominated in pesos. This is especially true in the low end of the market.

CHANGE OF GOVERNMENT

The new Zedillo government is still in the process of sorting out priorities. The first year of the new administration will be devoted mainly to defining these and positioning for the future. For Canadian companies with a medium-term perspective, there are still excellent prospects in the Mexican geographical information systems (GIS) market. But success will depend on their ability to evaluate emerging needs and develop marketing and delivery systems.

Officials of the *Banco Nacional de Obras y Servicios Públicos (BANOBRAS)*, National Bank for Construction and Public Works, said in mid-1995 that the Bank still has funds for cadastral update projects and is considering increasing the proportion that it will finance. Ten new projects were approved by *BANOBRAS* in the first quarter of 1995 alone. The officials add that cadastral updates are largely self-financing over the medium term.

Major administrative reorganizations are normal following Mexican elections, even where the ruling party is re-elected. A temporary lull in activity would have been expected even without the devaluation. Most agencies have their own GIS department, which is not very efficient. Existing GIS departments will need to adapt to new requirements. Industry analysts are predicting more strategic, and better-thought-out, purchases of more advanced and flexible GIS systems. Education and training will also be a priority.

The delay of new GIS projects, combined with the new emphasis on effectiveness, creates an opportunity for Canadian companies that adopt a medium-term strategy. It gives them time to establish a market position by developing new approaches and raising awareness of Canadian capabilities before major decisions are made.

The lull in purchasing will also provide an opportunity for Canadian companies to adapt their products to Mexican needs. Spanish language versions of products and literature is an obvious requirement. There are also many ways of adapting technologies to better suit the needs of the Mexican buyer. For example, systems that are cost-effective for immediate needs, but provide long-term "upgradability" are likely to be in demand.

PRODUCT OPPORTUNITIES

Once the cadastral update programs are complete, demand for many geographical information systems (GIS) services will fall off sharply. This includes services such as ground work, project definition and aerial mapping.

Decision makers interviewed for this profile stressed the long-term need in Mexico for some sort of integration of GIS systems. Ideally, all geographic information would be accessible through a single-server platform. Canadian companies which can provide integrated solutions will find a growing market, provided that adequate financing can be found.

Satellite services also have potential for Canadian companies. Satellite imagery for large corporations and state-owned companies is an untapped but potentially large market. Advanced data analysis techniques, data conversion systems and specialized methodologies, such as ortho-mapping, will also be needed as the country's backlog of raw data grows.

The expected lull in technology purchases also creates an opportunity for selling knowledge-based services. Education and training are badly needed in the Mexican GIS field. The provision of training services provides both an immediate market and an opportunity to raise awareness of Canadian technologies.

Another reason for expecting advanced services to dominate the medium-term market is that many of the larger buyers have already bought hardware. They now need to get the most out of the equipment that they own. This will include the integration of non-traditional data into GIS systems. The development of GIS-based planning and diagnostic tools will become more important than cadastral systems.

The privatization of GIS systems is another emerging trend. Some municipalities have received proposals for cadastral systems to be operated on a build-operate-transfer (BOT) concession basis. Given the lack of funds, some of them are likely to move forward. The feasibility of this type of project depends heavily on the availability of long-term "take or pay contracts" for GIS products.

PARTNERSHIP OPPORTUNITIES

Mexican suppliers of geographical information systems (GIS) rely almost entirely on technology alliances with foreign producers, and this is not likely to change in the near- to medium-term. Mexican suppliers must keep up with technological developments in order to stay competitive. The best way for them to do this is to develop strong relationships with capable foreign suppliers. This will be especially true as the market moves toward more advanced and specialized products.

Canadian capabilities are generally well-regarded, but the perception is that they are no better than those of other foreign suppliers such as those from the United States, Switzerland and Austria. GIS software is one area where Canadian products are especially well-regarded. Canada is also noted to be very experienced in production technologies and expertise, particularly map production.

THE REGULATORY ENVIRONMENT

Few barriers stand in the way of Canadian companies entering the Mexican geomatics market.

INDUSTRIAL POLICIES

Government regulation is only a minor factor in the Mexican geomatics sector. There are few industrial policies that set up barriers against Canadian companies. Although the North American Free Trade Agreement (NAFTA) allows the restriction of aerial-mapping services to Mexican companies until the year 2000, there are no actual restrictions in effect, except for areas around military bases. According to officials of the *Banco Nacional de Obras y Servicios Públicos (BANOBRAS)*, National Bank for Construction and Public Works, any company can obtain a permit from the *Secretaría de la Defensa Nacional (SDN)*, Secretariat of National Defence. Moreover, according to the *Instituto de Geografía, de la Universidad Nacional Autónoma de México (UNAM)*, Geography Institute of the National Autonomous University of Mexico, there are no ownership restrictions, import restrictions or product standards that affect this sector.

PROCUREMENT

There are a number of exclusionary policies in the tendering process for government contracts. Many procurements involve national tenders, meaning that they are restricted to Mexican companies. This is particularly true in the cadastral modernization program, where the national tender proportion is estimated at half of all procurements. Generally, bids are open directly to foreign firms only when the underlying technology and skills are unavailable in Mexico. Some recent procurements of satellite imagery have been classified as international.

A presence in Mexico is essential to bid on national tenders. Many of these projects have a relatively small advanced-technology component. The participation of Canadian companies will normally be limited to the more sophisticated components.

TYPICAL GIS CADASTRAL TENDER

Organization responsible	Government of Coahuila, Ministry of Finance, Cadastral Division
Tender classification	National
Description of work	Aerial photography to the scale of 1:4500 and 1:20,000 Enlargement of above photographs to scale of 1:1,000 Creation of digital maps for 466 km ² of territory, to the scale of 1:1,000 On-site verification and information gathering for 398,000 land plots in 10 cities Development and initialization of cartographic and taxation information systems
Requirements	Written request to participate in the tender Official documentation indicating a minimum capital of N \$1.0 million pesos Résumé of corporate experience Copy of company's founding act and any necessary modifications Copy of company's registration into applicable industry associations Copy of company's registration into the State of Coahuila's database of potential product/service suppliers
Cost of tender documents	N \$2,000 pesos (non-refundable)
Bid preparation period	Approximately two weeks
Deposits	Bidders to provide a certified cheque equivalent to 5 percent of the value of their proposal at the time of the bid opening. Unsuccessful bidders will have their cheque returned.

Source: Published in *El Universal*, October 13, 1994.

MARKET ENTRY STRATEGIES

Partnering with Mexican firms is the best way to learn about the market and gain access to key decision makers.

Canadian companies who do business in Mexico face a variety of linguistic and cultural challenges. Although most Mexican firms have English speaking personnel, working in Spanish is strongly preferred. To Mexicans, this suggests an attitude of interest and respect.

Mexican customers and partners expect a high level of attention and follow-up. Informality dominates at many levels and negotiations must frequently follow a social hierarchy. Personal contacts are essential and must be cultivated. Sometimes "extra" payments are requested, and Canadians must learn to avoid them without being intimidated. Economic conditions have also made financial concessions and price flexibility a key to securing deals.

PRIVATE SECTOR FOCUS

Although governments account for some 80 percent of Mexican geomatics purchases, the private sector tends to drive the market through its own needs-identification initiatives. Identifying a need, developing a solution and submitting a proposal is a good way to introduce new technologies. This definitely requires a persistent approach, especially for Canadian companies that are not well-known in Mexico. Needs are identified primarily through ongoing client contact. An established presence is, therefore, more important than participation in individual projects.

In many cases, expanded access to the major private players is a more effective route of market entry than direct end-user contact. For example, ARC-INFO has no direct contact with government departments: the Mexican partners handle all of the marketing.

So far, Canadian participation in this sector has been mostly large, one-shot government contracts such as those with the *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute for Statistics, Geography and Informatics, and the *Secretaría de Desarrollo Social (SEDESOL)*, Secretariat of Social Development. These projects were supported by the Government of Canada. There are a limited number of such opportunities, and Canadian companies need to build stronger links with the private sector in Mexico, where smaller contracts can be arranged in on a more regular basis. Such a strategy would also focus more closely on niche markets where Canadian services are in greatest demand.

PRODUCT ADAPTATION

Medium-sized municipalities are a major market for geographical information systems (GIS). Many of their staff do not have strong abilities in English. Thus, the ability to use a GIS system in Spanish is a major factor in the purchase decision. *Estudios Fotográficos de México (ESTOMSA)*, which distributes GIS systems for a producer in Spain, enjoys an advantage for this reason.

TECHNICAL PRESENTATIONS

Industry observers often point out that many proposals for efficient and cost-effective projects have been rejected because of a lack of understanding of the technology on the part of decision makers. It is, therefore, useful to explain the technology involved before specific applications are proposed. Mexican buyers believe that more advanced technology is inevitable. Thus, there is a window of opportunity to present them with new ideas. Technical seminars or presentations are generally well-received in Mexico, especially now that there are limited funds for international travel.

SERVICE

After-sales service and maintenance is increasingly important. The *Banco Nacional de Obras y Servicios Públicos (BANOBRAS)*, National Bank for Construction and Public Works, requires that suppliers have either a branch office or a service location in Mexico. Some states and municipalities also require the establishment of a Mexican office, and in some cases require that it be located in their state. For national tenders, a legal presence in Mexico is essential. Many foreign companies satisfy these requirements through a partnership with a Mexican company.

The lack of after-sales support for many imported products has been a major criticism from the buyers interviewed for this profile. For this reason they often prefer to deal with large multinationals, with proven service track-records.

GOVERNMENT PROCUREMENT

Under Mexican law, tenders from government must appear in the *Diario Oficial*, the Official Gazette. Calls to tender appear in this periodical on Tuesdays and Thursdays. All calls to tender are done in accordance with *Ley de Adquisiciones, Arrendamientos y Prestación de Servicios Relacionados con Bienes Muebles y su Reglamento*, the primary purchasing law, and its associated regulations. A separate handbook is available describing public bidding procedures under Mexican law.

In many industries, the procurement office of major buyers is the normal point of contact for Canadian sellers. But in the geographical information systems

(GIS) subsector, Canadian suppliers are usually providers of underlying technology. Procurement offices are usually responsible for buying components that have already been specified. Therefore, Canadian suppliers are advised to deal with the leaders of GIS projects as far as possible. This is the main channel for selling ideas.

Public purchases sometimes have been facilitated when companies set up a demonstration system and train government personnel. A typical demonstration might last three months. For example, the *Departamento del Distrito Federal (DDF)*, Department of the Federal District, purchased ARC-INFO as a result of a free demonstration and training program.

PARTNERSHIPS

Traditional distributors do not play a large role in Mexican geographical information systems (GIS). Mexican companies which distribute foreign technologies and products do so as part of a much broader package of services. For the most part, they are GIS generalists who are filling gaps in their product lines. For this reason, technologies are often chosen because of the abilities of the supplier rather than the other way around. The State of Nuevo León chose ARC-INFO not because they wanted that package, but because they regarded *Sistemas de Información Geográfica (SIGSA)*, as the best-qualified GIS supplier and *SIGSA* distributes ARC-INFO exclusively.

For products other than software, the immediate buyer is normally the company that has won a contract for an integrated GIS system. Thus, the end-user, which might be a government agency or state-owned company, has no contact with the foreign supplier. The main exceptions to this generalization are federal government departments such as the *Instituto Nacional de Estadística, Geografía e Informática (INEGI)*, National Institute for Statistics, Geography and Informatics, and *Apoyos y Servicios a la Comercialización Agropecuaria (ASERCA)*, which sometimes buy directly from the foreign manufacturer.

Because of the service orientation of the GIS market, moving into Mexico almost always involves some form of partnership with a local firm. Mexican GIS companies generally have good market insights and established contacts. Indeed, some of them were started because of their contacts. In general, however, they require considerable support to execute integrated projects.

One of the most common reasons cited for the failure of joint ventures between Canadian and Mexican companies is poor partner selection. Finding the right partner and negotiating a workable contract requires a major commitment of time and money. Mexicans do business on the basis of personal trust, and that takes time to develop.

Especially in today's competitive environment, it is essential to find a partner with capabilities that are complementary and not competitive. The partnership agreement must integrate the strongest assets of both partners so they can be presented as a seamless package.

SUPPORTING THE MEXICAN PARTNER

The essential element of a geographical information systems (GIS) partnership is that the Canadian partner provides technology and know-how while the Mexican partner contributes contacts, market access and local value-added. In the current economic environment, this means a substantial commitment on the part of the Canadian partner.

For example, an American supplier called ERSI, which supplies ARC-INFO to *Sistemas de Información Geográfica (SIGSA)*, has agreed to honour all of SIGSA's peso-denominated project quotes at the pre-devaluation rate. While this amounts to a revenue reduction of more than one-third for ARC-INFO, it will solidify a long-term relationship.

Mexican partners also require training and technological support. The Canadian partner can provide additional support by converting sales materials to Spanish and adapting products to Mexican needs.

Clearly, this kind of commitment costs money and requires frequent visits to Mexico. The key to managing these financial risks is to focus on niche markets where the Canadian company has a strong, long-term probability of success.

TRADE SHOWS

Attending trade shows is a traditional method of introducing products to Mexico and establishing contacts with both potential customers and partners. There are few Mexican geographical information systems (GIS) trade shows. Decision makers generally attend shows in the United States or Canada. One show was held in Mexico City in July, 1995, sponsored by the *Asociación Mexicana en Sistemas de Información Geográfica y Estadística (AMESIEG)*.

Two other annual events are of interest. The International Conference on Remote Sensing is usually held in December. The Urban and Regional Information Systems Association (URISA) holds an annual conference in the United States, usually in July.

LONG-TERM STRATEGIES

Entering the Mexican market has always been a medium- to long-term proposition. The recent economic crisis has made this strategy essential, especially in the geographical information systems (GIS) subsector. Product sales will be slow, but the next year or two will be an excellent time to sell new concepts. The change of government will delay sales, but it presents an opportunity for Canadian suppliers to get through to new decision makers. The creation of upgradable products will also provide a long-run growth opportunity.

WHERE TO GET HELP

CANADIAN GOVERNMENT DEPARTMENTS AND SERVICES IN CANADA

DEPARTMENT OF FOREIGN AFFAIRS AND INTERNATIONAL TRADE (DFAIT)

DFAIT is the Canadian federal government department most directly responsible for trade development. The InfoCentre should be the first contact point for advice on how to start exporting. It provides information on export-related programs and services, acts as an entry point to DFAIT's trade information network, and can provide copies of specialized export publications and market information to interested companies.

InfoCentre

Tel.: 1-800-267-8376 or (613) 944-4000

Fax: (613) 996-9709

FaxLink: (613) 944-4500

InfoCentre Bulletin Board (IBB):

Tel: 1-800-628-1581 or (613) 944-1581

The Latin America and Caribbean Branch promotes trade with Mexico. There are several trade commissioners at the Embassy of Canada in Mexico City, as well as in the satellite offices in Monterrey and Guadalajara. Trade commissioners can provide a range of services including introducing Canadian companies to potential customers in Mexico, advising on marketing channels, assisting those wishing to participate in trade fairs, helping to identify suitable Mexican firms to act as agents, and compiling strategic business intelligence on potential foreign customers.

Latin America and Caribbean Branch

Department of Foreign Affairs and International Trade
Lester B. Pearson Building

125 Sussex Drive

Ottawa, ON K1A 0G2

Tel: (613) 996-5547

Fax: (613) 943-8806

INTERNATIONAL TRADE CENTRES

International Trade Centres have been established across the country as a convenient point of contact to support the exporting efforts of Canadian firms. Co-located with the regional offices of the Department of Industry (DI), the centres operate under the guidance of DFAIT and all have resident trade commissioners. They help companies determine whether or not they are ready to export, assist firms with market research and planning, provide access to government programs designed to promote exports, and arrange for assistance from the trade commissioners in Ottawa and trade officers abroad. Contact the International Trade Centre nearest you:

Newfoundland

International Trade Centre

P.O. Box 8950

Atlantic Place

215 Water Street

Suite 504

St. John's, NF A1B 3R9

Tel.: (709) 772-5511

Fax: (709) 772-2373

Prince Edward Island

International Trade Centre

P.O. Box 1115

Confederation Court Mall

134 Kent Street

Suite 400

Charlottetown, PE C1A 7M8

Tel.: (902) 566-7400

Fax: (902) 566-7450

Nova Scotia

International Trade Centre

P.O. Box 940, Station M

1801 Hollis Street

Halifax, NS B3J 2V9

Tel.: (902) 426-7540

Fax: (902) 426-2624

New Brunswick

International Trade Centre

1045 Main Street

Unit 103

Moncton, NB E1C 1H1

Tel.: (506) 851-6452

Fax: (506) 851-6429

Quebec	International Trade Centre 5 Place Ville-Marie Seventh Floor Montreal, PQ H3B 2G2 Tel.: (514) 496-4636 Fax: (514) 283-8794
Ontario	International Trade Centre Dominion Public Building 1 Front St. West Fourth Floor Toronto, ON M5J 1A4 Tel.: (416) 973-5053 Fax: (416) 973-8161
Manitoba	International Trade Centre P.O. Box 981 330 Portage Avenue Eighth Floor Winnipeg, MB R3C 2V2 Tel.: (204) 983-6531 Fax: (204) 983-2187
Saskatchewan	International Trade Centre The S.J. Cohen Building 119-4th Avenue South Suite 401 Saskatoon, SK S7K 5X2 Tel.: (306) 975-5315 Fax: (306) 975-5334
Alberta	International Trade Centre Canada Place 9700 Jasper Avenue Room 540 Edmonton, AB T5J 4C3 Tel.: (403) 495-2944 Fax: (403) 495-4507
	International Trade Centre 510-5th Street S.W. Suite 1100 Calgary, AB T2P 3S2 Tel.: (403) 292-6660 Fax: (403) 292-4578
British Columbia	International Trade Centre 300 West Georgia Street Suite 2000 Vancouver, BC V6B 6E1 Tel.: (604) 666-0434 Fax: (604) 666-8330

**Edmonton office is also responsible for Northwest Territories*

**Vancouver office is also responsible for the Yukon*

WORLD INFORMATION NETWORK FOR EXPORTS (WIN EXPORTS)

WIN Exports is a computer-based information system designed by DFAIT to help Canada's trade development officers abroad match foreign needs to Canadian capabilities. It provides users with information on the capabilities, experience and interests of more than 23,000 Canadian exporters. To register on WIN Exports, call (613) 996-5701, or fax 1-800-667-3802 or (613) 944-1078.

PROGRAM FOR EXPORT MARKET DEVELOPMENT (PEMD)

PEMD is DFAIT's primary export promotion program. It supports a variety of activities to help Canadian companies expand into export markets.

PEMD shares up to 50 percent of eligible expenses. Program financial assistance is a repayable contribution, not a grant, and must be approved in advance. Funded activities include:

- Market Development Strategies, which consist of a package of support for visits, trade fairs, and market support initiatives, under one umbrella of the company's marketing plan.
- New to Exporting Companies, which provides a vehicle for these companies to seek out individual export opportunities, either through a market identification visit or participation in an international trade fair.
- Capital Projects Bidding for specific projects outside Canada involving international competition/formal bidding procedures.
- Trade Association Activities undertaken by non-sales national trade or industry associations on behalf of their member companies.

Support is provided for certain types of government-planned activities, such as outgoing trade missions of Canadian business representatives and incoming missions to Canada of foreign business persons and officials who can influence export sales. For general information, call the InfoCentre at 1-800-267-8376. For applications for assistance, call the International Trade Centre nearest you.

INTERNATIONAL FINANCING

DFAIT helps Canadian exporters interested in pursuing multilateral business opportunities financed by international financing institutions (IFIs). Canadian exporters and trade associations can access market data, obtain a better understanding of the competition, and determine if an IFI-funded market opportunity is practical and worth pursuing. DFAIT can provide information and advice on the availability of Canadian government-funded assistance programs and can assist companies in developing effective export marketing. For further information, contact:

International Financing Division

Department of Foreign Affairs and International Trade
Lester B. Pearson Building
125 Sussex Drive
Ottawa, ON K1A 0G2
Tel.: (613) 995-7251
Fax: (613) 943-1100

TECHNOLOGY INFLOW PROGRAM (TIP)

Managed by DFAIT and delivered domestically by the National Research Council, TIP is designed to help Canadian companies locate, acquire and adopt foreign technologies by promoting international collaboration. The Department of Industry (DI) also helps in program promotion. TIP officers respond to requests to identify technology sources and opportunities for cooperation between Canadian and foreign firms. The Program also helps Canadian firms make exploratory visits abroad to identify and gain first-hand knowledge of relevant foreign technologies, as well as how to negotiate to acquire them. For information, call (613) 993-5326.

INVESTMENT DEVELOPMENT PROGRAM

The Investment and Technology Bureau (TID) promotes Canada as an attractive, competitive destination for business investment to potential foreign investors. It actively encourages investments that take the form of new plant and equipment, joint ventures or strategic partnerships. The Bureau is especially interested in attracting investment that introduces new technology into Canada, which is key to creating new jobs and economic opportunities. It also helps Canadian companies to find international investment partners and to access international sources of capital and technologies. TID provides support to the chief executive officers of Canadian subsidiaries of multinationals which are seeking to attract manufacturing and R&D mandates to Canada. It also monitors and analyzes investment trends and perceptions of Canada as an investment site. TID works closely with the "geographic" branches of DFAIT and the

investment counsellors at Canadian missions around the world, as well as with provincial and municipal authorities, and professional and business organizations. For more information, contact:

Investment and Technology Bureau (TID)

Department of Foreign Affairs and International Trade
Lester B. Pearson Building
125 Sussex Drive
Ottawa, ON K1A 0G2
Tel.: (613) 995-4128
Fax: (613) 995-9604

NATURAL RESOURCES CANADA

Geomatics Canada
Earth Sciences Branch
Natural Resources Canada
615 Booth Street
Tenth Floor
Ottawa, ON K1A 0E9
Tel.: (613) 992-1094
Fax: (613) 943-8838

DEPARTMENT OF INDUSTRY (DI)

DI was created with a broad mandate to make Canada more competitive by fostering the growth of Canadian businesses, by promoting a fair and efficient marketplace for business and consumers, and by encouraging commercial ventures in scientific research and technology. In the area of small business, it has been given specific responsibility to:

- develop, implement and promote national policies to foster the international competitiveness of industry; the enhancement of industrial, scientific and technological development; and the improvement in both the productivity and efficiency of industry;
- promote the mobility of goods, services, and factors of production within Canada;
- develop and implement national policies to foster entrepreneurship and the start-up, growth and expansion of small businesses;
- develop and implement national policies and programs respecting industrial benefits from procurement of goods and services by the Government of Canada; and
- promote and provide support services for the marketing of Canadian goods, services and technology.

The regional offices of DI work directly with Canadian companies to promote industrial, scientific and technological development. They help clients recognize opportunities in a competitive international marketplace by providing services in the areas of business intelligence and information as well as trade and market development. DI also promotes and manages a portfolio of programs and services.

The following are areas in which DI regional offices have special competence:

- access to trade and technology intelligence and expertise;
- entry points to national and international networks;
- industry-sector knowledge base;
- co-location with International Trade Centres connected to DFAIT and Canadian posts abroad;
- client focus on emerging and threshold firms; and
- business intelligence.

For more information, call (613) 941-0222.

Business Service Centre

Department of Industry
235 Queen Street
First Floor, East Tower
Ottawa, ON K1A 0H5
Tel.: (613) 952-4782
Fax: (613) 957-7942

NAFTA Information Desk

Department of Industry
235 Queen Street
Fifth Floor, East Tower
Ottawa, ON K1A 0H5
Fax: (613) 952-0540

THE BUSINESS OPPORTUNITIES SOURCING SYSTEM (BOSS)

BOSS is a computerized databank that profiles over 25,000 Canadian companies. It lists basic information on products, services and operations of use to potential customers. The system was established in 1980 by the Department of Industry (DI) in cooperation with participating provincial governments. BOSS was originally established so that trade commissioners posted around the

world by DFAIT could find Canadian companies that might be able to take advantage of foreign market opportunities. Today, more than 11,000 domestic and international subscribers use the system, not only to locate Canadian suppliers, but also to obtain market intelligence and identify market opportunities. The majority of subscribers are Canadian companies. For more information, call (613) 954-5031.

MARKET INTELLIGENCE SERVICE (MIS)

MIS provides Canadian businesses with detailed market information on a product-specific basis. The service assists Canadian companies in the exploitation of domestic, export, technology transfer and new manufacturing investment opportunities. The intelligence is used by Canadian businesses in decisions regarding manufacturing, product development, marketing and market expansion. A request for information can be custom-tailored to meet each client's particular need. Previously-published customized reports are also available on request. The database is updated quarterly and annually. MIS is offered free of charge by fax, letter or telephone. For more information, contact:

Strategic Information Branch

Department of Industry
235 Queen Street
First Floor, East Tower
Ottawa, ON K1A 0H5
Tel.: (613) 954-5031
Fax: (613) 954-1894

REVENUE CANADA

Revenue Canada, Customs Program Branch provides a NAFTA Help Desk telephone line with service available in Spanish. Revenue Canada publications and customs notices are available by calling or faxing the NAFTA Information Desk. For more information, contact:

NAFTA Spanish Help Desk

Tel.: (613) 941-0965

NAFTA Information Desk

Revenue Canada, Customs Programs Branch
191 Laurier Avenue West
Sixth Floor
Ottawa, ON K1A 0L5
Tel.: 1-800-661-6121, or (613) 941-0965
Fax: (613) 952-0022

CANADIAN INTERNATIONAL DEVELOPMENT AGENCY (CIDA)

An important possible source of financing for Canadian ventures in Mexico is the special fund available through CIDA under the Industrial Cooperation Program (CIDA/INC). This program provides financial contributions to stimulate Canadian private-sector involvement in developing countries by supporting long-term business relationships such as joint ventures and licensing arrangements. INC supports the development of linkages with the private sector in Mexico by encouraging Canadian enterprises to share their skills and experiences with partners in Mexico and other countries. A series of INC mechanisms help enterprises to establish mutually beneficial collaborative arrangements for the transfer of technology and the creation of employment in Mexico.

There are five INC mechanisms that help eligible Canadian firms to conduct studies and that provide professional guidance and advice to potential clients. Where a project involves environmental improvement, technology transfer, developmental assistance to women, job training or job creation, early contact with CIDA's Industrial Cooperation Division is suggested. An important CIDA criterion is that the project creates jobs in Mexico without threatening jobs in Canada. In fact, most CIDA-assisted projects have produced net increases in Canadian jobs. For more information, contact:

Industrial Cooperation Division
Canadian International Development Agency
200 Promenade du Portage
Hull, PQ K1A 0G4
Tel.: (819) 997-7905/7906
Fax: (819) 953-5024

ATLANTIC CANADA OPPORTUNITIES AGENCY (ACOA)

Atlantic Canadian companies seeking to develop exports to Mexico may be eligible for assistance from the ACOA. The Agency works in partnership with entrepreneurs from the Atlantic region to promote self-sustaining economic activity in Atlantic Canada.

ACOA provides support to businesses as they look to expand existing markets through the development of marketing plans. Efforts include monitoring trade opportunities arising from global economic change, communications efforts to promote the region, trade missions and associated activities, as well as better coordination with federal and provincial bodies that influence trade and investment opportunities. For more information, contact:

Atlantic Canada Opportunities Agency
Blue Cross Centre
644 Main Street
P.O. Box 6051
Moncton, NB E1C 9J8
Tel: 1-800-561-7862
Fax: (506) 851-7403

WESTERN ECONOMIC DIVERSIFICATION CANADA (WD)

WD is responsible for federal economic development activities in Western Canada. The Department works in partnership with the western provinces, business, industry associations and communities to stimulate the western Canadian economy.

WD's "New Directions" program will work to enhance the export position of western companies by boosting their competitiveness in domestic and global markets.

The Department no longer provides repayable loans to individual companies, but seeks new innovative partnerships within both the public and private sectors. These partnerships will address the needs of small- and medium-sized enterprises for information, business services and capital, particularly for high growth industries critical to Western Canada's economic diversification.

One of WD's new products focused on export development is the International Trade Personnel Program. This federal-provincial initiative links export-focused western firms with recent post-secondary graduates. The program accomplishes two important socio-economic goals: it gives companies the extra person-power they need to penetrate new markets, and it gives recent graduates valuable work experience. Under the new program, the length of export-development projects may vary from one to three years. Approved projects will be eligible for assistance ranging from \$7,500 for one year, to a maximum of \$37,500 per graduate. For more information, contact:

Western Economic Diversification Canada
The Cargill Building
240 Graham Avenue
Suite 712
P.O. Box 777
Winnipeg, MB R3C 2L4
Tel.: (204) 983-4472
Fax: (204) 983-4694

EXPORT DEVELOPMENT CORPORATION (EDC)

EDC is a customer-driven, financial services corporation dedicated to helping Canadian businesses succeed in the global marketplace. EDC provides a wide range of risk management services, including insurance, financing and guarantees to Canadian exporters and their customers around the world.

EDC's products fall into four main categories:

- export credit insurance, covering short- and medium-term credits;
- performance-related guarantees and insurance, providing cover for exporters and financial institutions against calls on various performance bonds and obligations normally issued either by banks or surety companies;
- foreign investment insurance, providing political risk protection for Canadian investments abroad; and
- export financing, providing medium- and long-term export financing to foreign buyers of Canadian goods and services.

EDC has established relationships with leading commercial and public sector institutions in Mexico and Latin America. Exporters can call (613) 598-2860 for more information.

Smaller exporters, with annual export sales under Cdn \$1 million, should call the Emerging Exporter Team at 1-800-850-9626.

Exporters in the information technology sector can call EDC's Information Technologies Team at (613) 598-6891.

For information on the full range of EDC services, contact any of the following EDC offices:

Ottawa Export Development
Corporation
151 O'Connor Street
Ottawa, ON K1A 1K3
Tel.: (613) 598-2500
Fax: (613) 237-2690

Vancouver Export Development
Corporation
One Bentall Centre
505 Burrard Street
Suite 1030
Vancouver, BC V7X 1M5
Tel.: (604) 666-6234
Fax: (604) 666-7550

Calgary

Export Development
Corporation
510-5th Street S.W.
Suite 1030
Calgary, AB T2P 3S2
Tel.: (403) 292-6898
Fax: (403) 292-6902

Winnipeg

**office also serves
Manitoba and
Saskatchewan*

Export Development
Corporation
330 Portage Avenue
Eighth Floor
Winnipeg, MB R3C 0C4
Tel.: (204) 983-5114
Fax: (204) 983-2187

Toronto

Export Development
Corporation
National Bank Building
150 York Street
Suite 810
P.O. Box 810
Toronto, ON M5H 3S5
Tel.: (416) 973-6211
Fax: (416) 862-1267

London

Export Development
Corporation
Talbot Centre
148 Fullarton Street
Suite 1512
London, ON N6A 5P3
Tel.: (519) 645-5828
Fax: (519) 645-5580

Montreal

Export Development
Corporation
Tour de la Bourse
800 Victoria Square
Suite 4520
P.O. Box 124
Montreal, PQ H4Z 1C3
Tel.: (514) 283-3013
Fax: (514) 878-9891

Halifax

Export Development
Corporation
Purdy's Wharf, Tower 2
1969 Upper Water Street
Suite 1410
Halifax, NS B3J 3R7
Tel.: (902) 429-0426
Fax: (902) 423-0881

NATIONAL RESEARCH COUNCIL (NRC)

Canadian companies hoping to succeed in the Mexican marketplace may require additional technology to improve their competitiveness. The NRC works with Canadian firms of all sizes to develop and apply technology for economic benefit. The Council manages the Industrial Research Assistance Program (IRAP), a national network for the diffusion and transfer of technology.

The IRAP network supports the process of developing, accessing, acquiring, implanting and using technology throughout Canadian industry. IRAP has been in existence for 50 years and has acquired a reputation as one of the most flexible and effective federal programs. IRAP takes advantage of an extensive network of more than 190

different locations within approximately 90 communities across Canada, including numerous provincial technology centres, the NRC's own laboratories and research institutes, federal government departments, and technology transfer offices in Canadian universities. For further information, contact:

Industrial Research Assistance Program
National Research Council
Montreal Road
Building M-55
Ottawa, ON K1A 0R6
Tel.: (613) 993-1770
Fax: (613) 952-1086

KEY CONTACTS IN CANADA

SPONSORING ORGANIZATIONS

BAKER & MCKENZIE

Baker & McKenzie is one of the largest international law firms with offices in 35 countries. They presently have four offices in Mexico, in the cities of Juárez, Mexico City, Monterrey and Tijuana. In addition to providing legal advice, the firm's offices in Canada and Mexico work to assist Canadian companies to find the right partner to enable them to establish or expand their activities in Mexico. For more information, contact:

Baker & McKenzie
Barristers & Solicitors
BCE Place
181 Bay Street
Suite 2100
Toronto, ON M5J 2T3
Tel.: (416) 865-6910/6903
Fax: (416) 863-6275

BUSINESS AND PROFESSIONAL ASSOCIATIONS

Geomatics Industry Association of Canada
170 Laurier Avenue West
Suite 1204
Ottawa, ON K1P 5V5
Tel.: (613) 232-8770
Fax: (613) 232-4908

The Canadian Council for the Americas

The Council is a non-profit organization formed in 1987 to promote business interests in Latin American as well as Caribbean countries. The CCA promotes events and programs targeted at expanding business and building networking contacts between Canada and the countries of the region.

The Canadian Council for the Americas

Executive Offices
145 Richmond Street West
Third Floor
Toronto, ON M5H 2L2
Tel.: (416) 367-4313
Fax: (416) 367-5460

Canadian Exporters' Association

99 Bank Street
Suite 250
Ottawa, ON K1P 6B9
Tel.: (613) 238-8888
Fax: (613) 563-9218

Canadian Manufacturers' Association

75 International Boulevard
Fourth Floor
Etobicoke, ON M9W 6L9
Tel.: (416) 798-8000
Fax: (416) 798-8050

The Canadian Chamber of Commerce
55 Metcalfe Street
Suite 1160
Ottawa, ON K1P 6N4
Tel.: (613) 238-4000
Fax: (613) 238-7643

Forum for International Trade Training Inc.
155 Queen Street
Suite 608
Ottawa, ON K1P 6L1
Tel.: (613) 230-3553
Fax: (613) 230-6808

Language Information Centre
240 Sparks Street RPO
Box 55011
Ottawa, ON K1P 1A1
Tel.: (613) 523-3510

Open Bidding Service
P.O. Box 22011
Ottawa, ON K1V 0W2
Tel.: 1-800-361-4637 or (613) 737-3374
Fax: (613) 737-3643

MEXICAN GOVERNMENT OFFICES IN CANADA

The Embassy of Mexico, Mexican Trade Commissioners in Canada, and Mexican consulates can provide assistance and guidance to Canadian companies in need of information about doing business in Mexico. For more information, contact:

Embassy of Mexico
45 O'Connor Street
Suite 1500
Ottawa, ON K1P 1A4
Tel.: (613) 233-8988
Fax: (613) 235-9123

Mexican Consulate in Ottawa
45 O'Connor Street
Suite 1500
Ottawa, ON K1P 1A4
Tel.: (613) 233-6665
Fax: (613) 235-9123

OTHER MEXICAN CONSULATES GENERAL IN CANADA

Consulate General of Mexico
2000 Mansfield Street
Suite 1015
Montreal, PQ H3A 2Z7
Tel.: (514) 288-2502/4916
Fax: (514) 288-8287

Consulate General of Mexico
199 Bay Street
Suite 4440
P.O. Box 266, Station Commerce Court West
Toronto, ON M5L 1E9
Tel.: (416) 368-2875/8141/1847
Fax: (416) 368-8342

Consulate General of Mexico
810-1139 West Pender Street
Vancouver, BC V6E 4A4
Tel.: (604) 684-3547/1859
Fax: (604) 684-2485

Mexican Honorary Consulate
380 Chemin St. Louis
Suite 1407
Quebec, PQ G1S 4M1
Tel.: (418) 681-3192
Fax: (418) 683-7843

Mexican Honorary Consulate
830-540 5th Avenue, S.W.
Calgary, AB T2P 0M2
Tel.: (403) 263-7077/7078
Fax: (403) 263-7075

Mexican Honorary Consulate
1900 Commodity Exchange Tower
360 Main Street
Winnipeg, MB R3C 3Z3
Tel.: (202) 944-2540
Fax: (202) 957-1790

MEXICAN FOREIGN TRADE COMMISSIONS

Banco Nacional de Comercio Exterior (Bancomext) is the Mexican Foreign Trade Commission and has offices in Canada. It offers credits, export guarantees and counselling services to Mexican companies seeking to do business in Canada.

MEXICAN BANKS WITH OFFICES IN CANADA

Banco Nacional de México (Banamex), *Banco de Comercio (Bancomer)*, and *Banca Serfin* are private-sector banks which offer specialized services through their international trade information centres. The centres participate in a computerized communications network with access to numerous economic, governmental and financial databases throughout the world. These banks are located throughout Mexico and maintain offices in Toronto.

Banco Nacional de México (Banamex)

1 First Canadian Place
Suite 3430
P.O. Box 299
Toronto, ON M5X 1C9
Tel.: (416) 368-1399
Fax: (416) 367-2543

Banco de Comercio (Bancomer)

The Royal Bank Plaza
South Tower
Suite 2915
P.O. Box 96
Toronto, ON M5J 2J2
Tel.: (416) 956-4911
Fax: (416) 956-4914

Banca Serfin

BCE Place
Canada Trust Tower
161 Bay Street
Suite 4360
P.O. Box 606
Toronto, ON M5J 2S1
Tel.: (416) 360-8900
Fax: (416) 360-1760

CANADIAN GOVERNMENT DEPARTMENTS AND SERVICES IN MEXICO

COMMERCIAL DIVISION

THE EMBASSY OF CANADA IN MEXICO

The Commercial Division of the Canadian Embassy in Mexico can provide vital assistance to Canadians venturing into the Mexican market. The trade commissioners are well-informed about the market and will respond in whatever measures possible to support a Canadian firm's presence in Mexico.

Note: to telephone Mexico City, dial: 011-52-5 before the number shown. For contacts in other cities in Mexico, consult the international code listing at the front of your local telephone directory for the appropriate regional codes.

Commercial Division

The Embassy of Canada in Mexico
Schiller No. 529
Apartado Postal 105-05
Col. Polanco
11560 México, D.F.
México
Tel.: 724-7900
Fax: 724-7982

Canadian Business Centre

Centro Canadiense de Negocios
Av. Ejército Nacional No. 926
Col. Polanco
11540 México, D.F.
México
Tel.: 580-1176
Fax: 580-4494

Canadian Consulate

Edificio Kalos, Piso C-1
Local 108-A
Zaragoza y Constitución
64000 Monterrey, Nuevo León
México
Tel.: 344-3200
Fax: 344-3048

Canadian Consulate

Hotel Fiesta Americana
Local 30-A
Aurelio Aceves No. 225
Col. Vallarta Poniente
44110 Guadalajara, Jalisco
México
Tel.: 15-8665
Fax: 15-8665

ADDITIONAL CONTACTS IN MEXICO

GOVERNMENT DEPARTMENTS

Committee for Public Administration of Informatics
Comité de Informática de la Administración Pública, Estatal y Municipal

Av. de la Convención, esq. con Alameda
Col. del Trabajo
20180 Aguascalientes, Aguascalientes
México
Tel.: 514-3184/6618
Fax: 15-2306

Department of the Federal District
Departamento del Distrito Federal (DDF)

Plaza de la Constitución esq., Pino Suárez, Piso 1.
Col. Centro
06068 México, D.F.
México
Tel.: 518-1100, 782-2088/3000
Fax: 542-1429

Federal Electricity Commission
Comisión Federal de Electricidad (CFE)

Río Ródano No. 14
Col. Cuauhtémoc
06598 México, D.F.
México
Tel.: 553-7133, 207-3962/3704
Fax: 553-6424/6762

Mexican Port Authority
Puertos Mexicanos

Municipio Libre No. 377, Piso 6, Ala A
Col. Santa Cruz Atoyac
03310 México, D.F.
México
Tel.: 604-7875, 688-2266
Fax: 688-9081

National Bank of Construction and Public Works
Banco Nacional de Obras y Servicios Públicos (BANOBRAS)

Tecoyotitla No.100, Piso 4
Col. Florida
01030 México, D.F.
México
Tel.: 723-6000
Fax: 723-6108

National Institute for Statistics, Geography and Informatics

Instituto Nacional de Estadística, Geografía e Informática (INEGI)
Dirección de Políticas y Normas en Informática
Patriotismo No. 711 — A, Piso 10
Col. San Juan Mixcoac
03730 México, D.F.
México
Tel.: 598-7617/7490
Fax: 598-7738

National Institute for Statistics, Geography and Informatics

Instituto Nacional de Estadística, Geografía e Informática (INEGI)
Edificio Sede
Av. Héroe de Nacosari No. 2301 Sur
Fraccionamiento Jardines del Parque
20290 Aguascalientes, Aguascalientes
México
Tel.: 918-6947/0034/1719
Fax: 918-6945

National Oil Company

Petróleos Mexicanos (PEMEX)
Av. Marina Nacional No. 329
Col. Huasteca
11311 México, D.F.
México
Tel.: 250-2611
Fax: 625-4385

National Water Commission

Comisión Nacional del Agua (CNA)
Cda. J. Sánchez Azcona No. 1723
Col. del Valle
03100 México, D.F.
México
Tel.: 524-6985, 534-4650
Fax: 524-1129

Secretariat of Agriculture, Livestock and Rural Development

Secretaría de Agricultura, Ganadería y Desarrollo Rural (SAGAR)

Insurgentes Sur No. 476, Piso 13
Col. Roma Sur
06760 México, D.F.
México
Tel.: 584-0786/0834
Fax: 584-1887

Secretariat of Commerce and Industrial Promotion

Secretaría de Comercio y Fomento Industrial (SECOFI)

Sub-Secretaría de Comercio Exterior e Inversión Extranjera

Insurgentes Sur No. 1940 - P.H.
Col. Florida
01030 México, D.F.
México
Tel.: 229-6560/6561/6100
Fax: 229-6568

Secretariat of Communications and Transportation

Secretaría de Comunicaciones y Transportes (SCT)

Av. Universidad y Xola, Cuerpo C, Piso 1
Col. Narvarte
03028 México, D.F.
México
Tel.: 530-3060, 538-5148/0450
Fax: 519-9748

Secretariat of National Defence

Secretaría de la Defensa Nacional (SDN)

Bulevar Manuel Avila Camacho y
Avenida Industria Militar
Tramo Heroica Escuela Militar
Col. Lomas de Sotelo
11640 México, D.F.
México
Tel.: 395-6766
Fax: 557-1370

Secretariat of Social Development

Secretaría de Desarrollo Social (SEDESOL)

Av. Constituyentes No. 947
Col. Belén de las Flores
01110 México, D.F.
México
Tel.: 271-8481
Fax: 271-8862

Secretariat of the Environment, Natural Resources and Fisheries

Secretaría del Medio Ambiente, Recursos Naturales y Pesca (SEMARNAP)

Periférico Sur No. 4209
Col. Jardines en la Montaña
14210 México, D.F.
México
Tel.: 628-0602/0605
Fax: 628-0643/0644

Central Light and Power Company

Luz y Fuerza del Centro (LyF)

Av. Melchor Ocampo No. 171
Col. Tlaxpana
11379 México, D.F.
México
Tel.: 592-0655, 546-7770
Fax: 546-8409

BUSINESS AND PROFESSIONAL ASSOCIATIONS

Mexican Association of Geographic Information Systems and Statistics

Asociación Mexicana en Sistemas de Información Geográfica y Estadística (AMESIEG)

del Instituto de Geografía

Universidad Nacional Autónoma de México

Circuito Exterior, Ciudad Universitaria

Apartado Postal No. 20-850

01000 México, D.F.

México

Tel.: 622-4338, 616-0539

Fax: 616-2145

Geography Institute

Instituto de Geografía

Universidad Nacional Autónoma de México

Circuito Exterior, Ciudad Universitaria

Apartado Postal No. 20-850

01000 México, D.F.

México

Tel.: 616-0539, 622-4338

Fax: 616-2145

MEXICAN COMPANIES

National Telephone Company

Teléfonos de México, S.A. de C.V. (TELMEX)

Parque Vía No.190

Col. Cuauhtémoc

06599 México, D.F.

México

Tel.: 222-9650, 535-2041

Fax: 203-5104

Ingenieros Civiles Asociados, S.A. de C.V. (ICA)

Minería No. 145

Col. Escandón

11800 México, D.F.

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