# ComExport

Vol. 1, No. 1 March 15, 1993

## Canada Takes Telecom Expertise to World Markets

The telecommunications industry is going through revolutionary changes. Throughout the world, deregulation, "corporatization" and even privatization of public utilities are all opening new areas of telecom services to competition from home and abroad. These changes mean opportunities – competition in which Canadian companies can win!

Over the past few decades, Canadian telecommunications equipment companies have earned an impressive share of the world market. With the changes we are seeing, Canadian companies with operating experience can now rightly take their place as world-leading exporters of service and expertise.

To compete in this rapidly changing environment, information and contacts are essential. This special issue of *CanadExport* has been designed to provide you with some of the information. The Department of Communications in collaboration with External Affairs and International Trade Canada have established relationships with telecommunications ministries and companies throughout the world. They stand ready to help where they can.

**Perrin Beatty**
Minister of Communications

## Help for Canadian Communications Firms

Economic growth requires good telecommunications facilities. Developed countries are enhancing their competitive positions through modernizing and by lowering the costs of telecom services, particularly long-distance voice and data, as well as extending, improving, and digitalizing mobile services. For developing countries, the extension of quality digital voice and data communications throughout their territory is crucial to their ability to develop industry. Taken together, we see a large and rapidly expanding market for telecommunications products and services throughout the world.

But the market is sophisticated. Products must be competitive in price and performance. Domestic markets such as Canada's can no longer, by themselves, support the extensive product development costs now required. Companies must sell internationally.

The Government of Canada offers a number of services and programs to Canadian communications firms to help identify, develop and pursue export opportunities. The Department of Communications (DOC) has established close links with its counterpart ministries in other countries. Often these organizations are the customers of the Canadian companies or play an influential role in procurement decisions. In many cases, these organizations rely on DOC's advice. Canadian firms can also take advantage of the department's technical expertise in areas such as standards, policy and knowledge of international regulatory requirements to position themselves in a specific market.

DOC promotes Canadian technology and companies around the world in the following ways:

- organizing technical seminars abroad;
- bringing foreign telecommunications executives to Canada for training;
- organizing technical visits;
- making use of official co-operative arrangements such as bilateral memorandums of understanding, joint economic commissions, science and technology agreements, and policy consultations with counterpart ministries to advance Canadian commercial interests;
- arranging technical assistance in support of major strategic projects; providing market intelligence, gathered from all sources, relating to new opportunities and competition; and
- promoting international R&D collaboration between Canadian and foreign government laboratories, research institutions and private-sector companies.

DOC's activities could not be performed without active involvement of the Trade Commissioner Service of External Affairs and International Trade Canada (EAITC). The trade commissioners posted abroad are invaluable as contact people and sources of market information. In addition, DOC works with EAITC's geographic desk officers and the Advanced Technologies Division by providing technical support to telecommunications-oriented missions and trade shows.

DOC's interests cover a wide range of communications technology and service, including telecommunications network equipment, satellite

*Continued on page IV—HELP*

*Latin America*

# Wireless and Mobile T

Latin Americans have recognized that an improved telecommunications infrastructure is a vital component for future economic growth. Estimates of market size for telecommunications equipment over the next five years range from $40 billion to $70 billion. Changes in the economic environment, large-scale privatization of telephone companies and liberalization have created unprecedented opportunities for Canadian telecommunications equipment and service providers. Opportunities in mobile and wireless communications are particularly significant. The rural switching, transmission and distribution market alone is estimated to be worth over $3 billion over the next five years. Why is this the case?

Firstly, recent regulatory changes now permit the full exploitation of modern technologies by private entrepreneurs. This includes paging and cellular, but also trunking and rural telephony concessions.

Secondly, due to an aging wire-based infrastructure and the five to ten years required to modernize it, wireless communications offer a cost-effective, convenient and immediately viable choice. In essence, wireless and mobile solutions are a way to bypass poor wireline networks. They offer high utility to the user and can be constructed very rapidly. In addition, largely as a result of deregulation and competition, private satellite networks are growing exponentially. In Mexico, almost all major banks have installed and are continuing to expand satellite-based networks. In Venezuela, 140 companies registered for private satellite networking within two months of the opening of the service. In Argentina, the country's first satellite company, Impsat, had secured contracts by the middle of 1990 for 500 VSAT (Very Small Aperture Terminal) and 180 interconnections to its high-speed digital network in Buenos Aires.

In Mexico, Venezuela, p cellular telepho than those in developments opportunities switches, anter microwave pro this trend it is solutions wh methodologies Canada. For e high-powered t cellular telepho service previous is now followin and is in the proc cellular licence coverage to th country. Anothe provision of da teletext service transmission, coverage which is currently in place in most countries. Bidders should not restrict mobile technology designs and proposals to traditional models.

Because mobile technologies allow users to leapfrog alternative technologies, applications such as public pay cellular telephones may have great potential in Latin America, whereas in most industrialized countries this type of option is not an development of wireless communications in the region.

Finally, the North American Free Trade Agreement will provide a cost advantage of 10 to 20 per cent for products going to Mexico and, in addition, serve as a springboard into Latin America. The moment has come to build strategic partnerships with Latin America in order to unleash its mobile and wireless communications potential.

## Asia Telecom '93

Canada will have a national stand at Asia Telecom '93. This exhibition and forum is one of the region's largest and most comprehensive telecommunications events. Taking place in Singapore from May 17 to 22, 1993, the event will attract some 130 exhibitors from more than 30 countries. Sponsored by the International Telecommunication Union, Asia Telecom '93 will feature symposiums focussing on policy, technical, regulatory, and economic issues. At Asia Telecom, legislators, ministers and corporate leaders will set the course for the region's future direction in telecommunications development and opportunities.

In addition to Canada's national stand, several Canadian companies will have exhibits of their own. Companies wishing to exhibit at Asia Telecom '93 through the national stand are requested to contact EAITC's Asia Pacific South Trade Development Division (see contacts box).



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External Affairs and International Trade Canada / Affaires extérieures et Commerce extérieur Canada

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capacity to meet these demands. On September 21, 1992, in the

*Hanover, Germany*

# Canada to be a Partner Country at CeBIT '94

Canada has accepted the invitation to be the Partner Country at CeBIT '94, the world's largest regular exhibition of office, information and telecommunications technologies, taking place March 16 to 23, 1994, in Hanover, Germany. CeBIT is expected to attract 6000 exhibitors from 45 countries and more than half a million visitors. A global event, it attracts industry executives, buyers and researchers in this field from around the world.

In inviting Canada to become Partner Country, CeBIT organizers have acknowledged Canada's leadership in world-class information technologies, particularly telecommunications and computer hardware and software. According to Minister of Industry, Science and Technology, and Minister for International Trade, Michael Wilson, "CeBIT '94 provides an unparalleled opportunity to raise Canada's profile as a leading developer of information technologies and to encourage investment in this growing industry."

The lead up events during 1993 will be co-ordinated by External Affairs and International Trade Canada, the Department of Communications, Investment Canada, Industry, Science and Technology Canada, and the Information Technology Association of Canada. In May a cross-country publicity tour will take place, arranged in conjunction with CeBIT organizers, to solicit industry participation.

The federal government, in consultation with industry, the provinces and other players, has begun preparations for Canada's presence at CeBIT. Plans have been set for a Canadian national stand with more than 60 companies exhibiting their products, a "Canada Inc." section promoting Canada as a place to do business, multimedia displays, cultural events for the opening ceremonies and partner country receptions. Canadian speakers will also be featured at the CeBIT Forum seminar program.

Your participation, suggestions and enquiries are welcome—please call EAITC's Advanced Technologies Division (see contacts box).

*Latin America*

# Wireless and Mobile Telecom Markets Heat Up

Latin Americans have recognized that an improved telecommunications infrastructure is a vital component for future economic growth. Estimates of market size for telecommunications equipment over the next five years range from $40 billion to $70 billion. Changes in the economic environment, large-scale privatization of telephone companies and liberalization have created unprecedented opportunities for Canadian telecommunications equipment and service providers. Opportunities in mobile and wireless communications are particularly significant. The rural switching, transmission and distribution market alone is estimated to be worth over $3 billion over the next five years. Why is this the case?

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Secondly, due to an aging wire-based infrastructure and the five to ten years required to modernize it, wireless communications offer a cost-effective, convenient and immediately viable choice. In essence, wireless and mobile solutions are a way to bypass poor wireline networks. They offer high utility to the user and can be constructed very rapidly. In addition, largely as a result of deregulation and competition, private satellite networks are growing exponentially. In Mexico, almost all major banks have installed and are continuing to expand satellite-based networks. In Venezuela, 140 companies registered for private satellite networking within two months of the opening of the service. In Argentina, the country's first satellite company, Impsat, had secured contracts by the middle of 1990 for 500 VSAT (Very Small Aperture Terminal) and 180 interconnections to its high-speed digital network in Buenos Aires.

In Mexico, Chile, Argentina and Venezuela, penetration rates for cellular telephones are growing faster than those in North America. These developments have created excellent opportunities for suppliers of switches, antennas, voice mail and microwave products. To capitalize on this trend it is important to propose solutions which extend behind methodologies and designs in Canada. For example, in Mexico, high-powered transmitters offer rural cellular telephony service where no service previously existed. Argentina is now following a similar approach and is in the process of offering a third cellular licence that will extend coverage to the interior of the country. Another illustration is the provision of data broadcasting or teletext service through television transmission, coverage which is currently in place in most countries. Bidders should not restrict mobile technology designs and proposals to traditional models.

Because mobile technologies allow users to leapfrog alternative technologies, applications such as public pay cellular telephones may have great potential in Latin America, whereas in most industrialized countries this type of option is not an issue. In the immediate future, technologies such as digital cordless telephony (DCT) may provide the basis for a wireless local loop. Latin America is closely watching Canadian developments, where four DCT licenses have been awarded. Canada is once again taking a world-leading role and we have an opportunity to play a part in DCT development in Latin America.

The use of mobile satellites will have a major impact on the competitiveness of key decentralized resource industries such as petroleum. Latin America has shown great interest in mobile applications, such as SCADA (Supervisory Control and Data Acquisition), that can provide industrial control and monitoring. Future transmission capacity through new satellites will allow full development of wireless communications in the region.

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# Building Links to China's Huge Telecom Potential

Economic growth requires effective and efficient telecommunications. To maintain China's economic growth rate, now the highest in the world, the telecommunications infrastructure will have to expand at an incredible pace. From 1986 to 1990, telecommunications traffic grew at 24.4 per cent annually, local subscriber lines 19.7 per cent, toll calls 24.9 per cent and international calls by 51.3 per cent. For the rest of this decade China's Ministry of Posts and Telecommunications (MPT) is planning to increase the network capacity by 10 million lines per year. By 1995, 30 000 km of fibre trunk line are to be laid and 15 000 km of digital microwave will be added to their network. Chinese industry does not have the capacity to meet these demands. Shanghai Bell, a manufacturer of digital switches (a joint-venture with Alcatel), is back-ordered until 1995.

The man behind the growth is China's Minister of Post and Telecommunications, Yang Tai Fang. Minister Yang spent 10 days in Canada last September at the invitation of Canada's Minister of Communications, Perrin Beatty. During this time the Chinese Minister had a chance to visit Canadian telecommunications companies and participate in round-table discussions in several Canadian cities. Canadian technology impressed him. At each of the round-table forums, Minister Yang invited the participants to visit China for further discussions with MPT officials and to look for possible joint-venture partners.

On September 21, 1992, in the presence of the Minister of Industry, Science and Technology and Minister of International Trade, Michael Wilson, Minister Beatty and Minister Yang, representatives of DOC and the MPT signed implementing arrangements for the existing Memorandum of Understanding. These arrangements propose that a number of technical missions take place during 1993, including a rural telecommunications mission to China, a mobile communications mission to China and a spectrum management mission to Canada. The MPT would host the missions to China, arranging opportunities for Canadian participants and Chinese officials to exchange ideas on telecommunications technology.

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# Mission from the European Community on Distance Learning

In April, a group of 20 to 30 European Community (EC) officials working on the development and use of distance-learning and workplace-training technologies will come to Canada to follow up on discussions that begun in 1991 in Europe.

The mission will discuss distance-learning opportunities, new media technologies and applications designed for learning, and distance-learning market issues pertaining to both Canada and the world.

In 1991, fifteen Canadian private firms and public institutions met with a cross section of European organizations engaged in the research, development and application of new media and communications technologies for distance learning and workplace training. In addition to exchanging information on the latest developments, trends and policies in these fields, the mission explored areas of future collaboration in research, development and business ventures.

The mission was a great success. Several Canadian firms have since benefited commercially through joint participation in large European research and development programs such as DELTA (Development of European Learning Through Technological Advance). Exchanges of information between Canada and the EC are still taking place and some further undertakings are under discussion.

The EC mission to Canada will further strengthen the working relationships that were forged between Canadian and European organizations during the initial Canadian mission to Europe. The European participants will acquire additional information on Canadian experience and expertise, while Canadian organizations will gain opportunities to enhance partnerships and market access in the European Community.

The EC officials, all associated with the DELTA Program, will participate for one day in the "Multimedia Communications '93" conference, which will be held in Banff, Alberta, April 13 to 16, 1993. After the conference, the officials will visit several project sites where Canadian distance-learning technologies are being applied. On April 19 and 20, the EC mission will come to Ottawa to take part in a one-and-a-half day workshop, which will focus on new media and communications technologies applied to distance learning and workplace training. A Canada/EC videoconference will be conducted following the workshop. For further information contact DOC's Telematics Division at (613) 990-4924 or by fax at (613) 941-1164.

# Help for Canadian Communications Firms

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communications, data communications, spectrum management systems, radio and mobile communications, rural communications, broadcast technologies, and information technologies. Geographically, DOC has assigned priority to the following regions: Asia Pacific, Latin America, Western Europe, Middle East, North Africa, and the newly liberalized markets of Eastern Europe and Russia. In R&D, particular emphasis has been placed on co-operation with Japan and the countries of the European Community.

# Contacts

**ComExport** is published in English and French as a supplement to CanadExport by Communications Canada. Articles may be reprinted with credit to **ComExport**.

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