

associations or to the representative of the fair authority in Canada. Fairs in which Canada participates are listed in Canada's International Business Strategy (CIBS) document. It is worthwhile to check if a stand is planned for your product, service or sector.

Trade fairs are by no means limited in importance to the traditional functions of buying and selling. They are also important sources of market information and meeting places to seek new business partners for investment or for new technology. Fairs provide an opportunity to make connections to research and development centres keyed to particular branches. In addition, most shows have expanded their program to include seminars on new developments and exhibits for themes of broad interest to the sector in question.

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Another aspect of interest is the good position it offers to firms interested in reaching the Eastern European and Russian markets. The geographic location is not the only favourable aspect of Germany; it is a fact that many German firms have established

trade connections to the East. Specialized services are also commonly located in Germany to serve this still difficult market.

On balance, Germany must be considered in the marketing plans of any company interested in the European market or in search of partners/investment/new technology for their firm.

Science and technology

Germany has had a long tradition as a leading country in the development of new scientific information and its subsequent technological application. With a population just under three times that of Canada, Germany spends nearly 10 times as much as Canada on research and development (R&D). Although there have recently been expressions of concern at the declining percentage of the GDP spent on R&D (2.78% in 1990 and 2.33% in 1994), Germany remains one of the world's largest investors in R&D.

Leading-edge technology and scientific information are critical prerequisites to a healthy Canadian economy. *Text deleted* Our three main sources are the USA, Japan and Germany. For Canada, Germany presents many excellent opportunities for this transfer.

It is particularly strong in the areas of:

- instrumentation and sensors
- medical devices
- materials science, metalworking
- lasers and opto-electronics
- food processing and packaging
- autos and auto parts
- manufacturing and process technology
- industrial automation

- a broad range of machinery and equipment
- chemicals, plastics, rubber
- pharmaceuticals
- electrical and electro-mechanical equipment

On Canada's part we offer strength in such areas as:

- information technology, systems integration
- voice and data communications
- remote sensing and GIS
- bio-technology and bio-engineering
- cold weather operations.
- residential and commercial construction
- electrical generation and distribution
- railway and mass transit
- oil and gas
- environmental technologies
- mining
- marine and offshore equipment and instrumentation.

Now there is even greater need for Canada to renew and strengthen vigorous and wide-ranging connections for linking international technology and investment opportunities to Canadian needs. Language barriers and old prejudices have to be overcome. The task will benefit from ongoing activities and experience already gained. But a new vision and resolve is required if the current S&T relationships are to grow to the magnitude required for Canada to maintain its role as one of the advanced technical nations of the world. Strengthening partnerships with Germany will help us meet these needs and maintain a vigorous economy.

Approaches and limitations

Three methods are used to facilitate the transfer of S&T. The first is the simple transfer of technology from Germany, usually to a specific Canadian user. The source of the required technology in Germany is identified and the technology is obtained by a variety of means: requests, purchase, access to literature, negotiation, licensing agreements, and so forth. In some ways this method has a parallel in the transfer of scientific information via scientific literature. The approach is limited because the user only gets what is available and then, only what is found. The process is one way and non-interactive.

The second way, particularly effective for the transfer and advancement of technology, is the two-way transfer through partnerships and joint ventures. This subject is addressed below under Strategic Alliances.

The third way in which technology transfer has been promoted is through direct marketing of Canadian know-how in Germany. This approach has economic benefits that can extend over the long term for Canadian suppliers if appropriate copyrights and patents exist, or licensing agreements or other arrangements are in place. However, in the absence of such controls or agreements, there is the risk that technology sold is technological advantage lost.

