S&T collaborations with Germany have flourished under a number of agreements. Most notable among the agreements is the Canada-Germany Agreement on Science and Technology, which has been active for 25 years. Under this agreement some 400 projects have been successfully completed. There are about a dozen sectors in which collaborative work is conducted, including, Environment (Aquatic and Atmospheric), Medicine, Information Technology, Forestry, Energy, Space, Geosciences, and Agriculture. The scope of the work varies from year to year with a program review occurring every two years. Dedicated funds in each country are used to facilitate travel, workshops and joint field work. The funds do not support the research itself. For the most part, participating scientists come from federal laboratories.

There are two additional S&T arrangements between our two countries. The German Research Association (DFG) and the NSERC (National Science and Engineering Council) have an agreement under which they jointly support research projects proposed by collaborating universities. Finally, the environment departments in the two federal governments conduct, under a Memorandum of Understanding, studies and workshops on environmental policy.

Canada - EU Agreement on Science and Technology

Canada and the EU have concluded an agreement on scientific cooperation that has enhanced opportunities for Canadian organizations and companies to participate in leading-edge R&D with Germany and with other EU countries in multilateral arrangements. The agreement is reciprocal and gives EU organizations similar access to Canadian R&D projects. The areas of cooperation are: agriculture, medical and health research, non-nuclear energy, environment, information and communication technologies, telematics and mineral processing.

Strategic alliances

In the broad sense, Strategic Alliances refer to any form of mutually beneficial cooperation for an extended period between companies or institutions. Of primary interest to Canadians is cooperation involving exchange of scientific information or technology or joint-development of technology, products or markets. Such relationships allow both parties to access valuable expertise and information that would be difficult to acquire or develop on their own. There is potential to reduce costs, manage proprietary rights, expand marketing coverage and achieve results quickly. In addition, there are several advantages if joint R&D or product adaptation is undertaken in Canada. Canadian partners offer direct access to the NAFTA markets. The approach, however, can be slow, cautious and frustrating. The Germans appreciate good partners but they tend to be more careful than the more adventuresome Americans.

Sectors of interest

Most interesting are opportunities for crosssectoral cooperation where both countries are strong. For example, Germany is very strong in

the mechanical technologies, whereas Canada is strong in systems integration and information technology.

A partnership could develop a technically superior machine with a state-of-the-art user interface. A

" The most effective approach is personnal contact"

particular opportunity exists to expand links with the Fraunhofer Gesellschaft, Germany's leading centres for near-market technology development, and firms and universities in Canada. These links may lead to the transfer of advanced technologies to Canadian manufacturers, the expansion of precompetitive manufacturing technology research, and the training of highly qualified personnel for Canadian industry. As well, there is potential for investment by German technology-based companies in Canada because the high labour costs in Germany are impacting their competitiveness. Similar cooperation might take place in advanced manufacturing systems or in Telemedicine.

While the higher technology sectors lend themselves to more sophisticated forms of partnering like technology transfer, cross-sector cooperation or cooperative product development, most sectors lend themselves better to simpler forms of marketing or business cooperation.

Promotion

The most effective approach is personal contact. For this reason, efforts in priority trade sectors, where officers have already developed a base of contacts, have been most effective in promoting and following-up alliance opportunities. Many successful Strategic Alliance promotions by government and private sector interests have been held in conjunction with trade fairs. Event promotion, in whatever form, must be done well ahead of the event, through advertisements, mailouts or personal recruitment. Enquiries at the Canadian Government information booth can help in identifying additional prospects.

One local firm has been particularly effective in promoting partnering between Canadian and European firms in the bio-pharma area. Several banks, Chambers of Commerce and government publications regularly publish partnering opportunities.

Since strategic international cooperation and the pursuit of trade and investment potentials are increasingly linked to a strong S&T activity and infrastructure, the promotion and negotiation of partnerships with Germany must be conducted in the broadest context, allowing for elements of S&T, trade and investment as needed. Such promotions and subsequent negociations are effective means for accessing foreign technology and for creating new market opportunities.

