

Part I - External and Internal Network - Resources

In developing new functions in the Central Unit and abroad, the two aspects of technology transfer must be distinguished:

- a. acquisition of foreign technology;
- b. marketing of Canadian technologies.

Those two aspects give rise to two distinct activities. Both require the same degree of competence to ensure a knowledge of the products and processes, hence an understanding of the technical know-how expressed by those products and processes. However, the modus operandi requires a different type of staff, seeking out a different clientele and using different methods.

A. Acquisition

To search out and acquire new techniques, we must start with an enormous and constantly evolving technical data base. This type of knowledge cannot be stored in files: we must have a computer program so that a huge memory can be accumulated and - this is of even more practical importance - so that it can be immediately accessible to both the private and public sectors. That base exists at CISTI (the Canada Institute for Scientific and Technical Information), which is part of the National Research Council. CISTI has the third largest data bank of its type in the world - comparable to that at the Smithsonian Institute in Washington. CISTI serves as a base for the industrial development activity of NRC's 120- 150 ITAs (Industrial Technology Advisors), who are distributed throughout Canada and divided between the Provincial Research Organizations (PROs) and private industry, as well as the research institutes and universities. These officers are generally at engineer level, and - in closer and closer exchange with the private sector consultants - are in direct contact with over 8,000 firms. To keep up to date on the extremely rapid development of technologies, they are continually refreshing their knowledge through their access to and analyses of CISTI. One of the recent research projects of this system made it possible to set up a sectoral matrix, pointing out the needs of the various sectors of Canada's manufacturing industry and the corresponding sources of new technology, here and abroad.

That network for transmitting knowledge will be directly linked to the external network proposed in this report:

- a. CISTI must serve as a base for technical/industrial data;