Executive Summary

Information Technology (IT) concerns the techniques, tools and procedures for acquiring, creating (or composing), extracting, storing (or filing), retrieving, conveying and presenting information for ready assimilation, understanding and utilization. Thus, it affects most, if not all, aspects of business and personal communication.

The application of such Information Technology to the office and manufacturing sectors alone can greatly facilitate access, product or service design, production and delivery, quality and price, and ultimately competitiveness and market acceptance.

Because advances in computing and telecommunications technologies continue to be made at an unprecedented rate, the technology is becoming increasingly electronic. Thus, for example, microelectronics, a high growth area on the materials side of Information Technology, continues to integrate more and more complex electronic circuitry into tiny semiconductor packages, both lowering cost and increasing affordability of products and services. Moreover, Artificial Intelligence (AI), an emerging area of Information Technology, is leading the way toward computational machines which will perceive, learn, understand, plan, decide and act within limited contexts of specific environments, situations and scenarios to achieve limited objectives. As a direct result of well-focused and funded R&D, these limits will widen and allow greater potential, versatility and autonomy for machine assistance and automation.

This report presents the findings from a survey and analysis of Canadian companies in the informatics industry undertaken by Wescom on behalf of the Canadian Department of Communications and External Affairs.

Most of the information referred to in this report, as well as the companion survey reports, is contained in electronic form in the ITRD database[1]. Similar reports are available from surveys of companies and organizations in Japan[2] and Western Europe[3] are reported elsewhere.

---

[1]"Potential for International Cooperation in Information Technology R&D, Database System User Guide, Version 3.0", Wescom Communications Research International, Vancouver, for Department of Communications, Ottawa, April 1988.

[2]"Potential for International Cooperation in Information Technology R&D in Japan", A. Kwan, G. Dobbin, Department of Communications, Ottawa, April, 1988.

[3]"Potential for International Cooperation in Information Technology R&D in Western Europe", P.J. Booth, Wescom Communications, Vancouver, for Department of Communications, Ottawa, April 1988.