Canada's investment in nuclear science and engineering R&D has greatly improved the lives of Canadians over the past half century through the production of environmentally friendly and cost-effective electricity as well as through important roles in medicine, agriculture, manufacturing and resource exploitation. Continued investment in nuclear research and development is of vital importance if Canada is to maintain its scientific, technological, commercial and diplomatic standing while continuing to support long-term national goals.

## CANADA'S NUCLEAR ACHIEVEMENTS

The excellence of Canadian nuclear science and technology throughout the last half century, under the leadership of Atomic Energy of Canada Limited (AECL), has been recognized internationally for many reasons, including:

- development of the CANDU® power reactor;
- development of the MAPLE research and isotope production reactor;
- development of products that improve the quality of human lives;
- participation in the control of nuclear weapons proliferation; and
- the award of a Nobel Prize in physics.

Despite this international reputation, most Canadians are largely unaware of the extent to which the products of nuclear science and engineering support their daily lives. Many of these are shown in Figure 1 (see page 3).