

# Telecommunications



## Fibre Optics

*As the backbone of future telecommunications networks, fibre optics systems are under intense development in Canada. Since Canadian lightwave field trials began in 1976, a number of major fibre optics projects have been undertaken, including the installation of an extensive 3,200 km network in Saskatchewan that provides a broad range of communications and broadcast services to all cities and some 40 major towns in the province.*

*The Saskatchewan achievement will soon be eclipsed by a \$200 million plan by Telecom Canada to build a 7,000 km cross-Canada fibre optic network by the end of the decade. As well, in a \$100 million joint venture, CNCP Telecommunications and CN Rail will construct a fibre optic trunk linking Montreal, Ottawa and Toronto in eastern Canada, and another between Edmonton and Vancouver, in the western part of the country.*

*Canadian industry is already primed to meet the product and service demands of these domestic projects as well as those planned by telecommunications carriers outside Canada. Completely integrated systems — fibre optic cable and associated electronic and optical equipment — are produced by Northern Telecom and Canada Wire and Cable Limited teamed with its Canstar Communications subsidiary. Other major cable suppliers include Phillips Cables, and Pirelli Cables.*

*Northern Telecom employee removes graphite crucibles from a furnace used for growing multi-layer semiconducting structures. The layers are later processed into lasers for fibre optics systems.*