

TABLE 2

## Plastics Products: Principal Statistics, 1982-86

	1982	1983	1984	1985	1986
Establishments	943	1 086	1 143	1 172	1 180
Employment	54 650	37 027	43 058	47 712	48 000
Shipments (\$ millions)	2 617	3 125	4 015	4 681	5 025
Exports (\$ millions)	282	328	430	551	726
Imports (\$ millions)	581	733	931	1 075	1 193
Exports to EC as % total		3	3	2	3
Imports to EC as % total		6	7	8	10

Source: ISTC Industry Profiles, *Plastics Products*, p. 6. Refers to SIC 3199.

profiles for window and door frames. Scepter is a world-class producer of very large polyvinyl chloride (PVC) pipe. ABC plastics has pioneered blow-moulded large truck components. Woodbridge Foam is a strong producer of automobile seats. These firms, and others like them, can stand up to foreign competition in Canada and might also either export or, where the product in question is too bulky, exploit their expertise through direct investment.

Much of what is technically innovative in plastics products, however, is likely to originate outside the industry (strictly defined). Producers of products for which plastics provide an alternative material are branching into plastics production and, typically, have larger resources to sustain the type of research and development activities or establish the international co-operative arrangements required. Stelco, for instance, has set up a joint venture with a German company to manufacture plastic gas tanks for the automobile industry.

In general, the major actors in Canada in new materials (as defined above) are either firms concerned with losing

markets for their regular products to new material substitutes, or firms interested in substituting new materials for metals. Examples of the former are Alcan (which also produces ceramics powders) and Stelco, both of which have experimented with composites, and Noranda which, concerned with the threat to its market for copper wire, became involved with Canstar in optical fibre production.<sup>8</sup> Examples of the latter are automobile assemblers and parts producers (in particular Magna International) that have been fairly aggressive in substituting plastics and plastics composites for metals (although they have so far been rather modestly involved in materials involving ceramics) and Hydro Québec, that has a considerable interest in the conductive properties of some ceramics.<sup>9</sup>

With respect to ceramics, Canada does not have the resources to be at the forefront of the industry over a wide range of products, but has successful producers, or potentially successful producers, in a number of areas. In structural ceramics (materials that are impact-resistant, wear-resistant, or insulate) Hamilton Porcelains has been described as "technologically very strong" and has exported products to the U.S.,