markets, but this strategy will be important to a strengthening of the industry's capability in sectors where it is currently weak but where opportunities for future growth exist, e.g., certain manufacturing and process engineering areas.

The outcome of a greater involvement in R&D on the part of the industry would be to: increase its own efficiency of operation, provide more innovative engineering to clients, thereby creating an economic impact on the industrial sectors it serves, and encourage direct participation either on its own or in joint ventures with the manufacturing and construction sectors in the development of new equipment, products, processes and systems conducive to improving productivity and technological advancement in those areas. It would also produce direct benefits to the consulting engineering industry from receipt of payments of licensing fees as well as the likely subsequent participation in the engineering phase of the related industrial plant or capital project.

The principal constraints on consulting firms becoming more active in R&D are resource limitations and the high risk of the activity. Government assistance, particularly of a risk sharing variety, may be needed to encourage the industry to participate more fully in R&D and the overall innovation process.

(d) Other Factors

The level of activity in consulting engineering industry is predominantly dependent on capital investment. The industry is, therefore, deeply concerned about national policies and programs which will influence investment flow. For instance, investor confidence for capital project development is needed to sustain a healthy industry. Interest rate levels are an extremely important factor to the industry insofar as they affect investment decisions by clients.

3. Federal and Provincial Programs and Policies

There are no federal government programs designed exclusively for the consulting engineering industry. Nonetheless, consultants can and do participate in existing industrial, energy and export promotion programs either as direct applicants or as consultants to manufacturers and others.

The department's own IRDP presently excludes consultants from being direct applicants, but consultants can participate along with a manufacturer or processor. This limits assistance to direct users of the technology, whereas if the consultant were eligible to develop the technology for its own account, this would facilitate making the technology more accessible to other manufacturers through licensing arrangements. Moreover, fees earned in this way by the consultant could then be directed to further R&D effort.

Consultants are involved directly in the Unsolicited Proposal program administered by DSS, but unlike IRDP and IRAP, the disadvantage is that the title to any new technology developed under the Unsolicited Proposal program rests with the federal government and not with the business which originated and carried out the project. Much favoured are export programs such as the Program for Export Market Development (PEMD) and CIDA's Canadian Project Preparation Fund (CPPF) which are extensively used by consultants and represent considerable export support to the consulting community. While provincial governments do have marketing assistance measures cost appear to be supplementary, coming into effect when federal support is not available. The provinces do, however, mount missions abroad separate from federally-sponsored missions.

In August 1982, the Consultative Committee on the Canadian Consulting Engineering Industry made forty-six recommendations addressed to all levels of government, consulting engineers and other industrial sectors. There has been positive movement in the direction of some of the recommendations. For instance, on the matter of income tax exemptions for Canadians working abroad, increased tax