

the Environment. This combination, which to some seems bizarre, in fact reflects a strong logic of considerable merit. The responsibilities of both of these departments are tied essentially to the construction over the longer term of an economic strategy for our country. The responsibilities are complementary and not contradictory.

Clearly I do not have time this afternoon, in the time that is available to me, to deal with all the aspects of importance in these two departments, but I believe the House would like from me some indication of the steps we plan to take in various important areas and to explain how I and the government intends to approach these responsibilities.

Members of the House will already be aware that the Speech from the Throne has reaffirmed the objective of moving in Canada, as quickly as we possibly can, to having 1.5 per cent of our gross national product directed to research and development. In my view, this is something we can accomplish by the mid-1980s. I should say that I see no conflict between this objective and the one which has so often been expressed by members opposite of 2.5 per cent by the end of the decade. Both of these figures are on the same critical path.

The previous Conservative government had committed an increase of roughly \$155 million of federal expenditure in an attempt to put us on that path. It is my belief that that figure falls short of what is needed if we are to proceed as quickly as we can to that desirable objective. My belief is that something much closer to \$185 million in increased expenditure will be required if we are to achieve this objective. It is my confident belief that those resources will be found by the government to assist us in these efforts.

The 1.5 per cent of the GNP, as useful as it may be as a handy yardstick for measuring our progress in this area, is not an end in itself. Rather it is a means, it is the resources which must be devoted to a properly based research and development policy. Beyond this adoption of a 1.5 per cent figure are a variety of difficult decisions and questions which must be resolved if we are to have a comprehensive and coherent policy—the question as to what degree our effort should be directed to basic research; to what degree they should be oriented to mission-oriented research; the question of how our variety of institutions—government, industry and university—should be specialized in the research functions which they undertake; the question of the establishment of the various sectors in which our research and development should concentrate if we are to meet our over-all economic needs; and the question of developing systems for the distribution of information which ensure that the fruits of research are carried more effectively than they have in the past to those who will be able to benefit from them.

While those objectives and decisions still must be worked out if we are to have the clear and comprehensive policy we require, a policy which will have to be developed with considerable consultation of industry, the universities and scientists, there are in any case two clear immediate priorities. If we are to meet the 1.5 per cent objective, we have to bring on stream as quickly as we can the highly qualified manpower which will

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be required to provide us with the researchers and experts to meet that objective. Second, there is an outstanding and urgent need for the renewal of capital plant, laboratories and equipment if again we are to achieve that objective.

Basically these priorities will be attained through the activities of the federal granting councils. I am speaking of the Natural Sciences and Engineering Research Council, the Medical Research Council and the Social Sciences and Humanities Research Council, which are the main sources of financing for university research and for the training of new researchers. The councils have prepared five-year plans and have projected the levels of post-graduate scholarships and training grants needed to meet the manpower demands of a 1.5 per cent target. The Ministry of Science and Technology manpower model indicates that to meet the target by the mid-1980s we will have to train 30,000 people.

I recently announced, and I reaffirm today, that the government has confirmed an increase in the 1980-81 budget of the Natural Sciences and Engineering Research Council of \$41.8 million to a total of \$162.6 million. That is an increase of 35 per cent over last year. The council will be allocating a substantial share of this increase to new training programs to attract the best of our students into post-graduate research. These new awards will be available in both university and industry and, therefore, will also promote an improved transfer of technology and highly trained people to industry.

Also the funds will support other important objectives, such as the base of research competence, the replacement of obsolete equipment, which I mentioned earlier as an important priority, and the expansion of the council's strategic research programs in areas of national concern. The council has identified five areas of research activity where advances in knowledge or understanding or full-fledged technological innovations will improve our economic well-being. These are energy, oceans, food and agriculture, communications and toxicology. The council has had considerable success in drawing many of Canada's brightest scientists and engineers into these strategic areas.

My responsibilities in relation to the Department of the Environment at first sight seem to be of a rather different kind. I think most people view the responsibilities of the Minister of the Environment to be to find out what industry is doing, to find out what polluters are doing, and to tell them to stop. I believe the emphasis in the past in the public's mind has been in the environmental protection aspects of the Department of the Environment which indeed is a very important area of our activities. But our over-all purpose is larger; it is more global than that. Our essential purpose is really to consider how Canada's renewable resources can be maximized for the benefit of our population over the long term by development which will bring these resources to the benefit of our society and our economy and yet maintain a healthy environment on which they ultimately depend.

The environmental protection aspects have been most in the public mind and in the public view over the past two years, and