

are among those who are concerned about the gap between the perception of a new need, opportunity or threat and the development of a response which effectively utilizes the output of our knowledge-producing institutions. Science policy, among other things, should be designed and implemented to reduce this gap.

During the past six years there has been a growing appreciation of the need for institutions and individuals to become sensitive to change, to develop abilities and strategies to cope with change and environmental turbulence. The creation within the Canadian government of the Ministry of State for Science and Technology was certainly one of the main results of this growing appreciation.

In order to prepare for this new series of hearings, on September 17 I wrote, as chairman of the committee, to Dr. Maurice LeClair, Secretary of the Ministry of State for Science and Technology, and to Mr. Shepherd, Executive Director of the Science Council of Canada, asking their respective organizations to prepare briefs in the light of the committee's specific interest in science policy. On September 23 I sent a similar letter to all deputy ministers of government departments and heads of crown agencies. I also communicated, on October 14, with all private organizations which had submitted briefs to the committee during its first series of hearings in 1969.

With respect to the more particular area of futures studies, on October 17 I sent to all government departments and agencies another letter, accompanied by a questionnaire. I also communicated, on October 24, with a few private organizations which, to our knowledge, have developed a special interest in futures research.

Thus, six different letters and a questionnaire on futures studies were sent out. I believe it will be useful to have these documents printed as an appendix to today's proceedings so that they will be part of the public record. I hope the committee will approve this.

Hon. Senators: Agreed.

See Appendices 1 to 7, (pp. 21 to 41).

The Chairman: The members of the committee agreed at the previous meeting that this new series of public hearings should be inaugurated by the Ministry of State for Science and Technology. This was only natural, since the Ministry has a major responsibility as a central agency within the Canadian government for the formulation of broad science policies and a review and assessment of all proposed science expenditures.

Mr. Drury, the members of the committee are pleased that you are able to appear before them this morning in your capacity as Minister of State for Science and Technology.

It has been the practice of this committee to print the briefs submitted to us as an appendix to our proceedings instead of having them read here. It has also been our practice to invite our guests to make a short opening statement, if they so wish. Therefore, Mr. Minister, if you have anything to add to your brief we will listen to you with great interest.

The Honourable C. M. Drury, Minister of State for Science and Technology: Mr. Chairman, senators, I have been most impressed by the record of performance of your committee. I would recall to you that it is some seven years since I last appeared before this committee. I did so then in my capacity as Minister of Industry. The subject we dis-

cussed at that time was the government's intention to develop a communications satellite system. I think you will agree that that particular program has been a marked success, but it does indicate how long it is from the genesis of plans or ideas to the actual accomplishment of them and the possibilities of making, in a sense, an after-the-fact study of whether a plan has been successful or not.

When I appeared at that time you were just beginning your hearings and had before you many months of hard work. No one can doubt the thoroughness with which you approached your task. I think it is fair to say that no other investigation of science policy anywhere in the world has equalled that carried out by your committee. Your report has constituted a significant background to all discussions of science policy matters, and its influence will continue to be felt not only in Canada but, I suspect, also internationally.

You are now addressing yourselves to a review of the situation that has evolved in the years following the publication of your report, and you are quite reasonably concerned to establish the extent to which your recommendations have been acted upon.

Your choice of the Ministry of State for Science and Technology as your first witness was hardly unexpected. Your report dealt extensively with the role of the ministry, and the history of Canadian science policy over the past four years is inextricably bound up with the birth pains and growth of MOSST.

Many of your recommendations were addressed to the government as a whole rather than to the science ministry, and although the ministry has contributed its advice, the decisions by the government on action to be taken naturally took into account inputs from other sources as well.

It is my view, therefore, that the brief to your committee should be submitted by me as a member of the government and that I should meet personally with your committee. In calling on my ministry to provide a brief you have asked us to comment on a wide variety of issues. We have attempted in our written brief to handle your questions in two ways: those questions that relate to MOSST, its history, structure, procedures and programs, have been dealt with from the ministry's point of view; while those issues that are broader in nature I have commented on from a general government point of view.

We have in our brief tried to place the policies, decisions and events of the past four years in perspective and to identify wherever possible the influence that your committee's report has had. There are certain matters, such as the relationship between MOSST and the Treasury Board, that I know to be of specific concern to you, but I do not feel that I should try at this stage to pick out specific issues or attempt to summarize orally the material that is in our brief. I propose, if it is acceptable to you, to let the document speak for itself and to respond to questions on those particular matters that you or the members of your committee may wish to raise.

The Chairman: Thank you, Mr. Minister. At a previous meeting of the committee I asked members to indicate to me whether they wanted to put questions to the minister. The first three members of the committee to approach me were Senators Grosart, Carter and Lang. I will therefore recognize them in that order, to start with. I also propose that we should follow the procedure we used when we held our first series of hearings, at which time we allowed a member of the committee to put at least his main questions