

Science and Technology

of science and technology in any concrete manner. Indeed, as I will show, since the present administration assumed power, there has been a steady deterioration in Canada's scientific and technological effort.

I could speak for several hours on the importance of science and technology to our society, to the pursuit of a proper industrial strategy and, indeed, to the fulfillment of almost every public policy. Obviously, time does not permit this, nor is it necessary. The evidence is overwhelming, and I need refer those interested no further than to the reports of the Science Council of Canada and the Special Senate Committee on Science Policy. Faced with this evidence, let us then consider the performance of Canada and the Canadian government.

In November of 1967 the members of the other place adopted a resolution establishing a special committee to investigate Canada's performance in respect of science and technology. I am not an admirer of the other place. In fact I believe that the Senate should be elective or abolished.

Mr. Knowles (Winnipeg North Centre): Hear, hear!

Mr. Andre: Although I would rather see the former.

Mr. Knowles (Winnipeg North Centre): Oh no!

Mr. Andre: Nonetheless, it has to be recognized that the Senators on this special committee did an outstanding job, and the reports which were produced represent the finest analysis of any country's science policy ever undertaken.

I make that firm statement not just on the basis of my own judgment but on the basis that that is the assessment of the OECD, a highly respected organization which has itself given much time to the consideration of research and development and its importance to economic development.

It must be a matter of bitter irony to the Senate that the government of its own country has paid less attention to this report than have many other countries of the world. In fact recently the government of the Netherlands passed an order in council implementing some of the recommendations of this Senate report, and in that order in council gave credit to this special committee of the Canadian Senate. The government of the Netherlands recognized the validity of the report and implemented the policies called for, but the government of Canada did nothing.

● (1510)

The recommendations of this Senate report are many. I do not agree with all of them, and many members of Canada's scientific community have taken exception to some of them. There is almost universal agreement, however, that had the government implemented all of the recommendations it would be doing far more things right than wrong. Instead of implementing the recommendations, however, the government has almost ignored them, and in some cases has even taken the opposite tack.

One thing that did flow from the Senate report and the resultant public debate and pressure was the establishment of the Ministry of State for Science and Technology, as approved by this House in a motion passed on June 21, 1971. Many of us thought that the government had at last

[Mr. Andre.]

recognized the importance of science and technology and was setting up the instrument that would reflect that importance. How wrong we were, Mr. Speaker.

One of the assessments made of Canada's scientific research and development activities in the late 1960s and early 1970s showed that of the OECD nations we spent the smallest percentage of the gross national product on research and development. In other words, we were tenth out of ten OECD nations in terms of the percentage of gross national product allocated to research.

In 1971, the year the Ministry of State for Science and Technology was established under the present Minister of Industry, Trade and Commerce (Mr. Gillespie), gross expenditures on research and development in Canada represented 1.22 per cent of the GNP. The ministry was set up in order to change that very bad situation. In 1974 the gross expenditures on research and development had dropped to .84 per cent of GNP. A bad situation was made worse, Mr. Speaker, and that in spite of the fact that the government, by the establishment of the department, gave tacit agreement to the statement made in the first report of the special Senate committee at page 283, as follows:

In other words, we are just beginning to realize that we have seriously neglected to support research and development . . .

The report concludes with this statement:

We need more research, but not only that; we need good research and we need innovation. We must develop a coherent over-all science policy so that we can not only meet our economic objectives more effectively but also more realistically face our mounting social problems.

That is what the government stated it believed in; it stated that is why it set up MOSST. If you look at the performance of MOSST it is a bust. What has MOSST done?

Another measure of Canada's performance compared with that of the rest of the world is the amount of research done in the private sector by industry. Here again we are ninth out of ten OECD nations in the field of direct research. In 1971, .41 of the GNP was spent by industry on research and development. Three years later after the ministry had been supposedly trying to change a bad situation, the percentage dropped to .33 per cent of the GNP. That was a drop of 20 per cent. I hope I do not have to go into great detail to show the effect on jobs in Canada, and on trade, especially in the manufactured and high value added products.

Everyone agrees that research and development must be close to the marketplace; it must be conducted in industry. That is why industrial research and development is important. Obviously MOSST, if it tried, could not succeed in swaying government policy in any direction that would help strengthen industrial research. Yet that is what it was supposed to do according to the order in council establishing it which states:

The Minister of State for Science and Technology shall formulate and develop policies with respect to:

(a) the most appropriate means by which the Government of Canada may, through measures within its fields of jurisdiction, have a beneficial influence on the application and development of science and technology in Canada.