

creditable and of great value to this country. Again, what we looked at was science policy in Canada, and in cases where, for almost 50 years, certain policies and outlooks have been promoted on the claim that they would produce economic growth through industrial innovation, we could not avoid the simple criterion of success. The great British parliamentarian Edmund Burke, born in Dublin like Senator Grosart, called success: The only infallible criterion of wisdom to vulgar judgments.

We justified our selection of the three technological programs previously mentioned as follows:

Nuclear energy and military aircraft have been selected because they were the two major initiatives taken by the government in the 1950s; the computer technology was on a smaller scale but demonstrates much the same lesson.

Nobody can deny that the first two programs—namely, nuclear energy and military aircraft—were the two main programs of a technological character undertaken during the postwar period. We never pretended, as Dr. Herzberg and others seem to imply, that Canada was the only country to make mistakes in this field of high technology; on the contrary, we said:

Other power reactors in the western world have also experienced difficulties, but this is little consolation to Canadians.

Later on we asserted that:

Most other western countries were in the same position,

In analyzing these cases, our purpose was to show—and the context made that very clear—that after having seriously neglected our industrial innovation potential, and without an effective central control machinery for science policy, the Government could not rely on industry to make Canada self-sufficient in the sector of fabulous technology. And we concluded our analysis of these cases by saying:

...the first major government attempt to promote R & D in Canadian industry had failed to a large extent, except when government contracts had been used within the framework of our sharing arrangements with the United States.

Who can seriously reject this conclusion as applied to the conditions and the experiences we went through during the 1950s?

We could have presented a much longer list of mistakes and failures based on the evidence before us, if we had wanted to. But our purpose was—and I repeat it, because apparently it has not been understood by our critics—not to present a complete list of all the failures and successes of Canadian science and technology. Our purpose was to discuss science policy. We did, however, refer to the immense contribution made by the Department of Agriculture to the opening of the West, and we did present a list of successful inventions made in Canada, as Appendix 2 of Chapter 6 of the report. I readily admit that this list, based on J. J. Brown's book *Ideas in Exile*, is also far from being complete, but there

[Hon. Mr. Lamontagne.]

are a number of others contained in our proceedings which are available for everyone to read.

I must stress that the committee clearly instructed every department and agency of the federal Government to include in its brief, detailed case histories of what it considered to be its most notable success stories, whether in the field of fundamental research, applied research or development. We placed no limitation on the nature or extent of these requested success stories, and we published them all exactly as we received them. The only limitation was the suggestion that each agency should limit its success stories to 15 in number, a rather liberal restriction. In other words, the committee played the role of impresario in being the agent through which government departments and agencies, as well as organizations in the other sectors, could place on the public record their own story of their successes. This is the first time in Canada that such an opportunity has been opened for the detailed documentation of the successes of Canadian science and technology. The committee did not ignore Canadian successes; if any valid criticism in this area were warranted, it might be based on the premise that objectivity might be endangered because we published organizational autobiographies in which successes could be freely described by those who claimed them.

Secondly, our findings also prove to be right when the main components of our national science effort are compared with those of other advanced countries. As I said before, these comparisons show that Canada stands not only behind but aside from the international scientific and technological race. Moreover, when we compare our output in terms of patents and innovative success, again we find that our performance has been very poor and that our science policy has failed to develop innovation in industry, which up to now has been its main ultimate objective.

Thirdly, the core of the evidence presented to us by representatives of the public and the private sectors also supports our conclusions. We have been accused of having made a misleading presentation of that evidence and of having quoted people out of context. To my knowledge, these accusations have not been substantiated. Of course, we could not in 100 pages adequately cover more than 10,000 pages of evidence. But I submit that we duly warned the readers about this in the opening paragraphs of Chapter 7. We said:

It is not the committee's intention to sum up the descriptive content of the briefs. The OECD report on Canada's national science policy contains a recent and comprehensive description of the R & D activities and duties of government institutions and a general account of conditions prevailing in Canadian universities and industries, and there is no need to duplicate that effort.

We went on to assert:

It is important to extract from our proceedings the criticisms and constructive proposals we have received from Canadian individuals and organizations most directly concerned with national science activities and policy. This review of the evidence