

with respect to government and universities is comparable to these other competing countries and is satisfactory, but that the discrepancy exists with respect to the industrial sector, then surely more funds have to be made available to that sector. There must be additional funds over and above what is there now. Surely you have to do one of two things: either reduce the dollars from the universities and government and transfer them to the industrial sector; or provide new money, extra money. What I want to know is just what are you doing.

**Senator Grosart:** Perhaps I could refresh the minister's memory on the one-third. In a speech he made to the Purchasing Management Association of Canada on January 21, 1975, he made this statement:

Roughly one-third of all research and development performed in Canada is done in industry as compared to about two-thirds for most other industrialized countries. I do not expect the minister to remember everything he has said, but that was the statement to which Senator Carter was referring.

**Hon. Mr. Drury:** Yes, and I think perhaps that will enable me to make the point I was just going to make with Senator Carter. That one-third to two-third ratio is made up of two sources of resources: one is the corporate source—their own money which they are spending; the other is the government.

I do not accept that all the money spent in industry on research and development should be coming from the taxpayer. If the progress that one is seeking is not being made, it is not entirely due to a lack of funding by the federal government.

Admittedly, we have not achieved the success which would raise our comparability to what we think are desirable levels, but we have in operation the make-or-buy policy, and, as a matter of policy in relation to this, all new money for mission-oriented, as distinct from curiosity-oriented research, which can be, is contracted out. It is only where it is manifestly impossible—either by reason of time frames and the non-existence of institutions to do it or by reason of the fact that it would be economically ridiculous to contract out—it is only in these cases that new projects, new money, are not contracted out.

**Senator Carter:** Have you analysed the problem to find out whether this imbalance in the industrial sector is due to our branch plants situation; and, if so, if it is due to government strategy so far as we have pursued it over the years, surely the government has some responsibility to encourage business to create more capacity and to correct this imbalance? I do not think you can expect under our branch-plant environment, or under the type of economy we have, that the private sector can do this all by itself without some encouragement from government. There must be some specific problem that needs a specific plan of action.

**Hon. Mr. Drury:** The fact is that Canada has 3,000 miles of undefended border with the United States, and, because of the intimate relationship which exists between these two industrial communities, we have both easy and, relatively speaking, cheap access to the largest pool of technology in the world. This means that Canadians, whether they be owners or managers of enterprises, have cheaper access to new technology than most of the other OECD countries. Faced with a choice of buying technology cheaply, or trying to generate it themselves at higher cost, they

have chosen the cheaper route. In the short run there is no question but that it is cheaper.

**Senator Carter:** But we have only one-third the capacity we should have.

**Hon. Mr. Drury:** One would expect them to do this. It produces a situation in which, as you point out, we have only one-third of the capacity that our competitors have, but I suggest that the reason they have it is that they need it. It is cheaper for them to establish the capacity and generate their own than to acquire it by purchase. This means that the need—in an economic sense, anyhow—for this kind of capacity in Canada is likely to be less for us than for any other of the ten.

**Senator Grosart:** In spite of our deficit in international trading in technology-based exports? In spite of that, are you saying our need is less?

**Hon. Mr. Drury:** Less than any other of the ten, yes.

**Senator Grosart:** Why? Because we can sell primary resources?

**Hon. Mr. Drury:** The disadvantages of this are really twofold. In the first place, we are extremely vulnerable to being cut off from it as a consequence of political decisions. If our relationship with the United States were to deteriorate we might find ourselves arbitrarily cut off from cheapness in the first place, and accessibility, which we now enjoy in greater measure than the other OECD countries, in the second place.

This vulnerability is something which is undesirable. In order to make ourselves invulnerable we should be prepared to make an investment in invulnerability, which means paying a greater cost. This is one of the reasons, in the interests of reduced vulnerability, why we want to see the proportion rise from its present rate of one-third, to parity, or something close to it, with the other countries, in order to reduce our vulnerability.

Secondly, if we have this capacity ourselves, it means not only that we are less vulnerable to being cut off from technological information, but that we have a much greater degree of independence in manufacturing, and also in marketing. This is the reason why we want to achieve a higher degree of comparability and a higher degree of capacity within Canadian plants and within Canadian manufacturing, while at the same time recognizing that to go to the same level as the United States or Germany would probably be uneconomic. We would therefore expect to be rather lower down in the list that we would be if we had parity with the top countries. Do I make myself clear?

**Senator Carter:** Yes. I could rebut it, but I have to pass. Somebody else needs a chance.

**The Chairman:** I think Senator Bélisle had a brief question.

**Senator Bélisle:** Mr. Chairman, would you permit me a very brief supplementary?

**The Chairman:** Certainly.

**Senator Bélisle:** Mr. Minister, in the light of the information we received during your dialogue with Senator Grosart and with Senator Carter, arising from the answers you gave to Senator Carter particularly, my question is this: When you said you had failed, did you say that with humility in mind, or did you say it in order to protect the