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policy. In other words, did you do any research of a comparative nature—that is, in other countries? Did you do systematic research in industry and elsewhere to see whether the aims could be achieved, before the policy was announced?

Mr. Cobb: The short answer to your question is no, for two reasons: first, personally I was not in the ministry prior to November 1985 and therefore I was not associated with the development. Secondly—with due respect, I appreciate the intent of your question—it is probably a question that the minister himself would likely wish to answer.

Senator Marsden: Perhaps, but it would be very helpful indeed if you could let us know later on whether there is background work on it, because this is not a new idea. People have been talking about this for a long time. So it certainly was not launched straight out of the minister's mind. I might say that this is not intended as a political question. I am really interested in whether this idea can work, because, as you know, there is a body of thought that suggests that this is not the way to go about creating a climate for R&D in any society, and it is an empirical question as to whether or not that is correct. So perhaps, Mr. Cobb, if you could get back to us on that question, that would be very helpful indeed.

Mr. Cobb: Yes.

Senator Marsden: You issued a document recently—and I regret I do not have it with me—in which you analysed the research done in every ministry in the federal government. In other words, how much research was done inside the ministry and how much was done by contracts and grants elsewhere?

Mr. Cobb: That is right.

Senator Marsden: In an overwhelming number of those departments, over 60 per cent of the research, by my rough calculations, is done inside rather than outside the ministry. I wonder whether that statistic was taken into account in setting up this policy?

Mr. Cobb: Senator, you might wish to access this little booklet which attempts to summarize the overall federal expenditures on science and technology. I would be pleased to provide you later with the available statistics that might address your question.

Senator Marsden: I have the statistics. What I am asking for is the policy basis in the sense that vast amounts of R&D money in this country are spent inside the federal government's own departments. As you said in your brief, the objectives of this program are to increase the overall level of university-based research, research training and directly related activities. To my mind, there is a bit of a contradiction there and I would like to hear what you have to say about that in your position as policy chairman.

Mr. Cobb: In respect to your first question, senator, the policy of the federal government in respect of contracting out more of the research that is now performed in the federal laboratories, for example, has been stated as a policy objective

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of the federal government. We have introduced the technology centres policy as one of the efforts in helping to achieve that goal. The other is what we refer to as the extramural performance policy which has similar objectives with respect to transferring out, particularly to universities, of work that can and should be done within a university context unless a very solid reason can be given as to why it should be done inside. Those reasons would include security or other reasons. Therefore, the policy position is quite clear.

What we were attempting to do with the matching policy, which is not a contracting-out policy, was to attempt to forge a stronger linkage or partnership in research between the private sector itself and the universities. The \$380 million provided to the granting councils, over and above their base budgets, was the financial incentive to help achieve that goal. Therefore, I do not see the immediate linkage between the contracting out of government research from government labs to the policy objectives of the matching policy.

Senator Marsden: I am looking for the philosophical explanation as to why it should occur, rather than for the numbers. It is quite obvious that some of the great research in the country has been done by the Department of Agriculture. There is no question about that at all. Also, there is no reason to believe that that research could necessarily have been better accomplished in the universities, so I am asking what is the explanation for why one would have a policy that says that there should be more work done in the universities than inside the government? In other words, I am looking for the ministry's underlying analysis of the situation that led to this policy.

Mr. Cobb: I suppose one of the fundamental views of the ministry is that research and research spending in a university setting, as opposed to that research being conducted in federal laboratories—or even industry laboratories for that matter—produces a secondary benefit that is not ordinarily achieved in a government or an industry laboratory, and that is the production of highly qualified people. Therefore, there is also that element.

In respect of your question as to why the federal government would want to see greater research collaboration between the private sector and the universities, I know the view prevails that universities possess a great deal of expertise. They possess knowledge, not only from their own universities but from the academic community at large and worldwide, that could indeed be beneficial to the industrial sector in particular. Therefore, to the extent both parties work closer together, we would expect that the benefits would be more widely dispersed and exploited by the private sector. Those, I suppose, are some of the philosophical underpinnings of the policy itself. However, senator, I am not sure that I am addressing the question of the linkage that you have raised.

Senator Marsden: Your answer is helpful, because I assume, then, that one of the assessments that you will be making in the 1989-90 period is whether more qualified people are produced. In fact, most of those research funds will go to faculty