

Mr. ROUSH. Dr. Hornig, I have before me an article written by Dr. Harvey Brooks entitled "Needed—More Freedom in our National Labs." It occurred to me during the discussion you had with the chairman on this matter of discretion that the managers of the labs perhaps do need more freedom. On the other hand, I wonder if they are capable of identifying the real problems relating to the needs and wants of the people. I am afraid they are liable to decide to stress the sex life of a frog instead of the population explosion and its effect on the economy and the social life of the country.

Dr. HORNIG. I would answer it this way. There is a range of decision which ought to be allowed at each level of management, and we are trying to say, How do we make a whole dynamic system work?

Obviously, the general guidelines as to what topics need to be tackled in the public interest have to come from the political structure of the Government, but the translation of those into what is technically feasible, and where the technical opportunities lie is the job of the technical people.

When you ask how much responsibility is appropriate, this depends entirely on the qualification of the laboratory and the laboratory director. I could make two general observations. It turns out to be precisely the best and busiest laboratories that have also the best ideas as to what else they might be doing. In those laboratories which have run out of missions, the standard thing to do is turn to basic research, and one finds this building up in these laboratories. In some ways, laboratories which have the most capacity to absorb more are the ones that have the fewest ideas as to what they should most effectively do. I don't know how to make a general prescription, except to have a good management.

Mr. ROUSH. I think these hearings are going to be very fruitful and very good. It seems to me that you put your finger on it in your testimony when you said that one of the most critical questions was the choice of problems.

Now, the chairman in his preliminary statement identified several problems which confront the Nation and are going to confront the Nation. He pointed out such things as crime, transportation, housing, food, and water.

Now, one of the difficulties is that these are very general. We would like for a lab which may be dealing with atomic energy to be able to know that one of the problems is, for example, the storage of food, and that in the course of their work they should be alerted to the fact that perhaps through the use of radiation they can store foods for longer periods of time. Another lab which may be working on communications should know that one of the problems in crime detection is the need for rapid, prompt, accurate communications, or in the storage of knowledge, the use of the computer. I think that our problem is to tell these people on this level that this is what we are seeking, not that they are to solve at that laboratory all of the problems of crime.

Dr. HORNIG. I think that this is precisely right. If we can encourage ideas to come up from anywhere, so they will all know that they can contribute, then it becomes a management problem to do it at the best places.