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Rowstock 377 Ext: 7

15th February, 1961.

The Rt. Hon. Lord Bridges, G.C.B., G.C.V.O., M.C., F.R.S.
The Royal Fine Art Commission,
5 Old Palace Yard,
London, S.W.1.

Dear Lord Bridges,

Future organisation of Institutes

I enclose:

1. A copy of a letter which I wrote to Cockcroft during your absence abroad.
2. A copy of "D.S.I.R. Research Grants 1961", which gives the membership of the Research Council and the Research Grants Committee, and summarises the method of working.
It also gives inside the back cover a list of the D.S.I.R. stations and a brief summary of terms of reference.
3. A copy of the report of the D.S.I.R. Council for 1959 (the latest available). This is more detailed and gives much useful information. For example, the committee structure is described. However, it does not list the specialist subject sub-committees which sift applications for research grants from universities, and recommend awards to the Research Grants Committee which then considers them further for approval. The relevant one for us is the Nuclear Physics Sub-Committee of which Cockcroft is Chairman and I am a member. In 1958-9 52 grants were made for nuclear physics totalling £826,000 (page 10).

You already have a copy of the paper presented to the last meeting of the A.C.S.P. I think the best plan would be for us to meet after you have digested some of this information, to prepare a brief for your attendance at the A.C.S.P. In the meantime the following comments may help:

The paper given to the A.C.S.P. still presents much too rosy a picture of the case for Research Councils. (The first draft was even worse and I managed to have it changed). Their case can be attacked destructively phrase by phrase. But it is more difficult to present a positive case for keeping Institutes outside the Research Councils. One valid line of argument goes like this: Fundamental research in certain fields (e.g. the N.I.R.N.S. aspects of high energy nuclear physics) requires both big expenditure and complicated specialised facilities, each on a scale outside the possibilities of university management. The organisational aspects are in practice more important than the financial, although since they are more difficult to assess quantitatively the Government naturally tends to concentrate its attention on the capital cost as a yardstick. Fundamental research also requires rapid action and flexible management, to give scope for fresh ideas and to produce novel equipment (in our case on a factory scale) before it becomes outdated. The large expenditure from public funds demands close and effective financial control. The only hope of reconciling these conflicting demands is to have short lines of communication in both directions between the Government who approve programmes, the Treasury

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The Rt. Hon. Lord Bridges, G.C.B., G.C.V.O., M.C., F.R.S.

who pay, and the university research workers who formulate and carry out the programmes, but these lines must inevitably pass through the management machinery of any organisation which may be proposed. The original solution chosen for N.I.R.N.S. clearly meets these requirements in principle, and has been shown to work reasonably well in practice. A compact Governing Body is chosen from people of such standing in the field of operation, and under an independent Chairman of such standing, that they can expect to enjoy the confidence of the Government and the research workers. This body has been specifically designed to be capable of discharging the functions defined in its Charter, and if made to report through a similar body one of these two would have no real function.

In the context of D.S.I.R. as it now works, for example, the co-ordination of spending in different fields depends upon detailed examination of claims in several subject sub-committees followed by overall review in the Research Grants Committee, which derives its authority from (and reports to) the Research Council. Where would we fit? The only logical place would be the absurd one of the Nuclear Physics Sub-Committee - two steps below the Research Council. We could not, of course, be mixed up with the mass of small individual requests for grants in nuclear physics in this way. Proper financial control of the whole nuclear field as a unit would involve us in intolerably detailed supervision of spending. Without this, minor overspendings on our large budget would sooner or later soak up all the money in a particular period for the larger number of small grants. We must have more direct access to the Treasury, who will also need similar access to us to keep us in order. The mediation of the Research Council, cut off from its Grants Committee and subject sub-committees, would then be pointless.

Logic drives us to conclude that, if one body is required to supervise all spending on nuclear research, we should be that body. Our Governing Board is a specialist body. But I return to this later.

The problems now facing the Government include the following:

- (1) How is the A.E.A. to be replaced as the body watching over N.I.R.N.S. finances?
- (2) How is the Minister to deal with N.I.R.N.S. alongside other possible Institutes of a similar nature but in different fields?
- (3) How is the Minister to be advised on the distribution of funds and effort as between Institutes and other bodies in the same field of work?
- (4) How is the Minister to be advised on the overall distribution of funds and effort as between different fields of work carried out by all bodies including Institutes?

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A final solution to problem (4) may take a long time to work out. This should not be rushed, because many delicate issues including the independence of universities are involved. Problems (1) and (2) are quite urgent. An ad hoc or "caretaker" solution, pending decisions on (3) and (4), has some attractions and I think is essential. Most of the people with whom I have discussed the problem would recommend that Institutes should report to the Minister's office which might have to be strengthened in order to deal with us effectively. I went on record at Turnbull's Committee as supporting this on behalf of N.I.R.N.S. Problem (2) could be solved by broadening the N.I.R.N.S. Board to become a general Institute Board. Any cases put to the Minister would then have been balanced against others in the Institute field. He could still have general advice (e.g. from A.C.S.P. or individuals - as he does now). Problem (3) might ultimately find its best solution by putting the grant-awarding function with the Institutes, but is a problem which should not be allowed to influence the short term solution of (1) and (2). It should be left to be taken as an important aspect of the main problem, (4), and in the meantime grant-awarding should stay with D.S.I.R. who are represented on N.I.R.N.S. and who use N.I.R.N.S. representatives in their subject sub-committee.

Problem (4) may require drastic changes in the D.S.I.R. as at present constituted. There is much to be said for separating the university and industrial sides of their work into two quite different bodies. A Research Council covering public aid to universities outside the U.G.C. field, completely divorced from the D.S.I.R.'s heterogeneous collection of stations and from their industrial activities, would be the aim. The permanent staff arrangements could be modelled on ours (and the Authority's), but if the Treasury insisted (as they might well) we might have to accept the Civil Service structure. This Council would be funded by a Parliamentary vote to the Minister for Science, and his Office would be enlarged to deal with it. I hope to send you a short note showing one possible system for the Council.

We should not allow the undoubted urgency of problems (1) and (2), and the undoubted importance of (3) and (4), to force a hasty solution of all four problems at once - particularly as legislation would be probably required for any other solution than simply to put us under D.S.I.R.

I should perhaps point out that there is an important problem for us which, although irrelevant to the main line of argument with D.S.I.R., is quite urgent and will become more acute if further Institutes are to be formed. We have insufficient administrative staff at high level to cope even with present N.I.R.N.S. problems without the help of the A.E.A. We shall need the equivalents of Drake and Lindsell and their immediate supporters. They could, of course, be part of the Minister's Office but they do not exist there at present.

Yours sincerely,

T. G. Pickavance

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