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10 DOWNING STREET

From the Private Secretary

SIR ROBERT ARMSTRONG

ANNUAL REVIEW OF RESEARCH AND DEVELOPMENT

The Prime Minister was grateful for your minute of 11 November (A083/3232) covering the first Annual Review of Research and Development.

The Prime Minister agrees that the Report should be circulated to colleagues and then published with the omission of tables 2(c) and 2(d).

The Prime Minister has taken particular note of ACARD's comments on funding of university research.

MR. D. BARCLAY

14 November, 1983

Ref. A083/3232

PRIME MINISTER



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Prime Minister

Agree circulation of the report to colleagues, followed by publication?

ACARD's comments on funding of university research are at Page A.

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11/4

Annual Review of Research and Development

Cmnd 8591 (Government response to the report "Science and Government" by the House of Lords Select Committee on Science and Technology) announced that the Government were instituting an Annual Review of R & D. This exercise would aim to bring together the various elements of Government R & D expenditures in order that the overall balance of expenditure could be examined, overlaps and duplications identified and omissions recognised. The Review would go to ACARD for independent advice and its findings, with ACARD's views, would be a contribution to PES discussions.

2. Responsibility for preparation of the Review rests with the Science and Technology Secretariat in the Cabinet Office, working under the guidance of the Sub-Committee of Chief Scientists, chaired by Robin Nicholson. The first review has now been completed. I attach a copy of the report which was sent to ACARD, and a copy of Sir Henry Chilver's letter to me giving ACARD's reactions. The latter gives a warm welcome to the concept of the Review; similar views were expressed in the Advisory Board for the Research Councils.

3. This first Review concentrated on the assembly of consistent information on R & D expenditures, thus laying a foundation for future analyses. The Secretariat found that Departments were reporting such expenditures on different bases and with different definitions of what constitutes R & D; the preparation of truly comparable expenditure figures has involved considerable effort. Part II of the paper comprises this collection of expenditure data and a summary of departmental R & D objectives. Part I is a commentary on the factual information, in which Figures 1 and 2 summarise the present balance of Government expenditures and contrast with the situation in 1973/74. The main change is the increased proportion of the total accounted for by defence R & D.



The Secretariat were not able this year to make comparisons of expenditure by Government with that by the private sector, or indeed to relate these to the activities of our major international competitors. They have, however, prepared plans for such analyses in the 1984 Review which have been approved by the Sub-Committee of Chief Scientists. ACARD members, with their experience of assessing and managing R & D programmes in the private sector, will be assisting the Secretariat in this exercise.

4. The 1984 Review will be an essential database for a general critique of Government spending on R & D, the urgent need for which the Chief Secretary, Treasury spoke about at your meeting with the Secretary of State for Education and Science on 19 October. I understand that Dr Nicholson is having discussions with Treasury officials on how such a critique should be carried out.

5. Cmnd 8591 contained no commitment to publish the outcome of the annual Review. In future years there will be comments on the situation revealed by the Review, from the Sub-Committee of Chief Scientists and from ACARD, which could be controversial. I would see these as separate from the Review itself, and would not recommend their publication. However, the Review itself, comprising the factual information and the commentary, seems to me another matter. The Sub-Committee of Chief Scientists favour its publication as a means of better informing industry and others of what the Government is doing. I endorse this view and, if you agree, will arrange for the publication of an unclassified version, omitting the two tables on Defence research expenditures, Tables 2c and 2d. The remaining data is in the public domain already but has not previously been brought together or presented in this consistent and helpful form.

6. No formal response to ACARD is called for, but you will no doubt wish to draw the attention of all Cabinet Ministers to the exercise as a whole, and that of the Secretary of State for Education and Science to the comment about the funding of university research. I attach draft Private Secretary letters.

RP
 (Approved by
 ROBERT ARMSTRONG
 and signed in his absence)

11 November 1983



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ROYAL MAIL

DRAFT PRIVATE SECRETARY LETTER TO THE PRIVATE SECRETARY OF
THE CHANCELLOR OF THE EXCHEQUER

ANNUAL REVIEW OF RESEARCH AND DEVELOPMENT

The Prime Minister has received the report from the first Annual Review of R & D announced in Cmnd 8591 (Government observations on the report "Science and Government" from the House of Lords Select Committee on Science and Technology), together with the views of the Advisory Council for Applied Research and Development on this report.

She has asked that the Review and ACARD's views (copies attached) should be drawn to the attention of members of the Cabinet.

The Prime Minister considers that the Review, apart from the two classified tables on Defence research expenditure, Tables 2c and 2d, could usefully be published and has asked Sir Robert Armstrong to arrange this.

I am copying this letter and attachments to the Private Secretaries of other members of the Cabinet and to Richard Hatfield.

DRAFT PRIVATE SECRETARY LETTER TO THE DEPARTMENT OF EDUCATION AND SCIENCE

ANNUAL REVIEW OF RESEARCH

You will have seen a copy of my letter to the Chancellor of the Exchequer on this subject, drawing the attention of all Cabinet Ministers' private secretaries to the Review of Research and to ACARD's views upon it. The Prime Minister would particularly draw the attention of your Secretary of State to the comments of ACARD on the funding of university research.



ADVISORY COUNCIL FOR APPLIED RESEARCH AND DEVELOPMENT

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Sir Robert Armstrong GCB CVO
Secretary of the Cabinet
Cabinet Office
70 Whitehall
London SW1A 2AS

3 August 1983

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FILING INSTRUCTIONS
FILE NO.

Dear Sir Robert

Annual Review of Research — *See separate box.*

In its response (Cmd 8591) to the report 'Science and Government' from the House of Lords Select Committee on Science and Technology, the Government stated that there would be an Annual Review of Research, which would come to ACARD for independent advice. The Council considered the outcome of the first Review at its meeting on 5 July, and I am therefore writing to convey the Council's comments on that document to you.

ACARD appreciate that the first Review had to concentrate on the assembly of a coherent and consistent historical account of Government R & D expenditures, and that there was therefore little opportunity to place these in a broader, national framework. The Council consider that the assembly of such information was in itself a valuable exercise, enabling the distribution of R & D expenditures to be seen in broad terms, and providing an essential basis for the more analytical future phases of the Review process. While recognising, and supporting, the essentially decentralised decision-taking process for the allocation of Government's R & D resources, the Council wholeheartedly endorse the concept of the Annual Review, which attempts to create the total picture that results from these decentralised decisions and to place the national R & D effort in the context of economic and social needs.

In announcing the Review, the Government laid stress on the importance of making the best use of the resources devoted to R & D. The focus of attention in the Review must therefore be the deployment of these increasingly constrained financial and manpower resources in the most effective manner to meet the various policy aims of Departments. The Council look forward to

receiving next year analyses which enable the Government's R & D expenditures and allocations of skilled manpower to be placed in a wider national and international context in order that their relationships with R & D carried out in the private sector and the rest of the public sector may be considered. Council members with experience of developing and managing major research programmes in the private sector will be assisting the Science and Technology Secretariat in the Review, notably by advising on methods by which the output from research programmes might be assessed, to complement the analyses of financial and manpower inputs.

As for the Review just completed, I would single out for comment here only one aspect of the figures presented, namely, that concerning the expenditure of £474 million recorded in 1982/83 for the research component of UGC expenditures. The Council were informed that this, like previous such estimates, was essentially based on a survey of the use of academics' time in 1970, which concluded that 30%, on average, was devoted to research. In their recent report on research links between higher education and industry, ACARD cast considerable doubt on the current validity of this survey. The possible error which results could be significant in current assessments of the national R & D effort. The Council consider that, taking universities as a whole, the research element of general university funding ought indeed to be at the level represented by the 'official' figure. The size and significance of the possible shortfall reinforces the ACARD report's recommendation for a more directly accountable system of funding research through the UGC machinery. I understand that a DES/UGC/NAB study of the problem is underway, and I hope that the results of the study will soon be available.

ACARD consider that the Annual Review process has made a highly promising start. Council members will be assisting in the development of the new Review and the Council look forward to receiving the report from the 1984 Review next May.

I would be grateful if you would convey these comments to the Prime Minister.

Yours sincerely

Henry Chilver

Sir Henry Chilver
Chairman, ACARD