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SECRETARY OF STATE FOR TRADE & INDUSTRY

E(RD)(86)1st Meeting, 17 April 1986

I attach briefs on each of the items for discussion at E(RD) on 17 April.

2. Item 1 - the Work Programme: Your objective should be to avoid a discussion and have this paper noted only. The work programme has been discussed and agreed by E(RD)O and in any case only reflects the remits given to E(RD) by E(A)(86)6th Meeting of 19 February.
3. Item 2 - the Implementation of "Pull-Through": This is a Note produced jointly by the Secretary of State for Education and Science and the Minister of State for Information Technology. The substance of it was generally endorsed by E(RD)O. It ought, therefore, to be possible to get E(RD) to agree to the principle of "pull-through", particularly in view of the support given to the idea by the Prime Minister at the E(A) discussion. The Treasury may raise the question of financing, but I recommend you to defer this for consideration under item 3 of the agenda.
4. Item 3 - Financing of "Pull-Through": This is in the form of a note by Sir Robin Nicholson. I fear it will be difficult to get agreement. The Secretary of State for Energy will almost certainly resist raiding his Vote for the remaining funds necessary for "pull-through". The Chief Secretary will be briefed to argue that a decision should be postponed until the relative merits of "pull-through" and other proposals for reallocating R&D resources can be considered in the 1986 PES. This would not meet the wish of E(A) for "immediate action" on these proposals and I suggest that you should press initially for the proposal recommended by Sir Robin Nicholson. If, however, as is likely,

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this meets strong resistance, you may consider that your best bet would be to go for agreement on option (iv) of paragraph 9 of E(RD)(86)4 - going ahead with the proposal with a commitment now to find the additional funds necessary in the 1986 PES. If that fails, you will wish to reserve your position, perhaps with a view to reporting to the Prime Minister.

5. In steering the meeting you will wish to remember that time is limited since Cabinet is due to start at 10.30 am.



J B UNWIN

Cabinet Office
15 April 1986

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AGENDA ITEM 1

Work Programme

E(RD)(86)2

BACKGROUND

In E(RD)(86)2 you invite members of the Sub-Committee to take note of the work programme of E(RD). As the paper makes clear, the first task of E(RD) were essentially set by the remit issued by E(A)(86)6th Meeting of 19 February. Moreover, E(RD)O has already had a protracted discussion of the work programme and its implications, and the references to the consideration of international (including EC) collaboration have been strengthened in response to the Foreign Secretary's (and your own) comments. There is therefore no reason why E(RD) should not simply take note of the work programme without further ado, and your aim should be to achieve this with the minimum, if any, discussion.

HANDLING

2. I suggest you introduce the note very briefly on the above lines and invite the Sub-Committee formally to take note of it. You will only wish to invite comments in a rhetorical manner. You may, however, wish to remind colleagues that the Prime Minister, in summing up the discussion at E(A)(86)6th Meeting of 19 February, invited the new Ministerial Committee to produce a first report within 3 months. This means that work will need to proceed swiftly and expeditiously, with the full backing of all Departments concerned.

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AGENDA ITEM 2

Implementation of "Pull-Through"

E(RD)(86)3

BACKGROUND

In her summing up at E(A)(86)6th Meeting of 19 February, the Prime Minister said that the new Ministerial Committee on R&D "should give urgent consideration to the (then) Chief Scientific Adviser's proposal for a reallocation of resources so that immediate action could be taken to promote a "pull-through" of Government-funded R&D to improve the efficiency, competitiveness and innovative capacity of the United Kingdom economy". The Prime Minister also said the new Committee should aim to produce a first report within 3 months (ie before the end of May).

2. E(RD)(86)3 is a joint Note by the Secretary of State for Education and Science and the Minister of State for Information Technology suggesting how "pull-through" might be implemented. It is very much along the lines of Sir Robin Nicholson's proposals. The substance, though not all the details, of the paper was agreed at E(RD)0; and a separate paper from Sir Robin (E(RD)(86)4) makes proposals as to how the scheme should be financed.

Proposals

3. E(RD)(86)3 proposes that the DTI and the Science and Engineering Research Council (SERC) initiate a "pull-through" programme involving:

(a) an SERC/DTI Joint Programme Board (JPB) (comprising inter alios independent industrial representatives, members or nominees of the SERC Council and DTI Technology Requirements Boards, the Chief Engineer Scientist of DTI, and the Chairman of SERC) to consider proposals for specific programmes (a list of possibilities is at Annex 1 of

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E(RD)(86)3) and to set criteria for "pull-through";

(b) public expenditure rising to £100 million pa by 1990 (comprising £25 million each from DTI and SERC with £50 million from other Government R&D expenditure), matched by at least an equivalent private sector investment;

(c) an expert task force of industrialists and academics for each programme to work out detailed research plans and programme management arrangements;

(d) retention of industrial property rights with the companies involved;

(e) evaluation and monitoring of the "pull-through" proposal by the new DTI Assessment Office.

Discussion

4. Except for the question of finance (see paragraph 6 below), the main substance of the proposal in E(A)(86)3 should command general acceptance. What is proposed draws on the experience which DTI and SERC have gained through collaborative R&D programmes such as Alvey and the Joint Opto-electronics Research Scheme (JOERS). It is recognised that the public sector contribution should be no more than is necessary to maintain an adequate programme with increasing industrial funding as projects move towards commercial exploitation; and that the programme should be properly evaluated and monitored. The main purpose of the programme is to address the UK weakness in developing successful industries from its outstanding scientific inventiveness. There would be side benefits in encouraging a greater interchange between industry and academe and helping reduce the current "brain drain".

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5. The DTI believe it would be feasible to have some programmes running by 1990-91 with Government expenditure running at £100 million pa. At E(RD)O it was suggested that, in practice, the programme would take time to get underway, and that the maximum level of Government expenditure might be reached later.

Finance

6. This will provoke disagreement and the Treasury's reservation is noted in paragraph 6.4 of the paper. The Treasury do not believe that a firm decision to commit funds like this should be taken before the Public Expenditure Survey (PES). Financing of "pull-through" is however, the subject of Item 3 of the Agenda and I suggest you defer consideration until that item.

HANDLING

7. I suggest you try to secure the agreement of E(RD) to the substance of the "pull-through" programme as set out in E(RD)(86)-3; any detailed points (eg on refinements to the scheme) could be left to be settled between Departments at official level separately. In guiding discussion towards this end, you may wish to quote the Prime Minister's summing up of the discussion at E(A)(86)6th Meeting (paragraph 1 above); and to emphasise that a major virtue of this scheme is that it is simple and could be implemented quickly.

8. You will wish to invite the Secretary of State for Education and Science and the Minister of State for Information Technology to introduce E(RD)(86)3. The Chief Secretary, Treasury may wish to comment on the implications for public expenditure. The Secretary of State for Foreign and Commonwealth Affairs may have views on international aspects. Other Ministers may also wish to contribute to the discussion. Sir Robin Nicholson may also wish to comment in the light of the prior discussion by E(RD)O.

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CONCLUSION

9. You will wish the Sub-Committee to decide whether the "pull-through" programme should be implemented along the lines suggested in E(RD)(86)3, subject to a separate decision on the financing.

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AGENDA ITEM 3

Financing the Pull-Through Programme

E(RD)(86)4

BACKGROUND

E(RD)(86)4 is a Note by the former Chief Scientific Adviser, Sir Robin Nicholson, architect of the "pull through" proposal, in his capacity as Chairman of the Official Committee on Research and Development (E(RD)O). At its meeting on 26 March, E(RD)O gave general endorsement to the principle of the "pull-through" programme, but failed to agree on its financing. The DTI and the SERC have agreed to cover any expenditure in 1986-87 and to fund 25 per cent of the funds required in subsequent years. This means that the following amounts need to be found from elsewhere:

1987/88	1988/89	1989/90	Thereafter
£12.5m	£25m	£37.5m	£50m

Paragraph 9 of E(RD)(86)4 sets out 4 options for Ministers to consider, including that favoured by Sir Robin.

Proposals

2. The funding options identified in E(RD)(86)4 are:

(i) to provide the necessary funds by reallocation from the Department of Energy's fast reactor programme, by transferring part of the funding responsibility to the Electricity Supply Industry (ESI) as its potential customer (the option favoured by Sir Robin Nicholson);

(ii) to identify one or more other civil R&D programmes from which funds can be transferred;

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(iii) to postpone a decision on "pull-through" until the relative merits of this and other proposals for reallocation of R&D resources can be considered in the context of the 1986 Public Expenditure Survey (PES) the option strongly favoured by the Treasury, who believe that no decision should be taken outside PES;

(iv) to go ahead with the proposals but to make a commitment now to find the additional funds necessary in the course of the Survey.

DISCUSSION

3. E(A)(86)6th Meeting on 19 February invited the new Ministerial Committee on R&D to "give urgent consideration to the Chief Scientific Advisers's proposal ... so that immediate action could be taken to generate a "pull-through" of Government-funded R&D to improve the efficiency, competitiveness and innovative capacity of the UK economy." There is therefore a strong presumption that decisions should be taken now.

4. Option (i) - to finance "pull-through" by raiding the fast reactor programme will be strenuously resisted by the Secretary of State for Energy, for the reasons in paragraph 7 of E(A)(86)4. The Department of Energy argue that, in the light of the decision at E(A)(86)6th Meeting that the total volume of resources devoted to defence R&D should be reduced, there is scope for increasing the total resources devoted to Civil R&D. Moreover, they see difficulties in reopening the arrangements recently reached with the CEGB for sharing nuclear R & D costs in the way implied; and point to difficulties this would cause in the international collaboration (France, Germany, Italy and Belgium) in fast reactor R&D on which the UK is engaged (a point which the Foreign and Commonwealth Secretary might make in support of Mr Walker). Mr Walker may also argue that, with the fast reactor now working at a full rate with high efficiency, and the prospect of electricity which can be generated by a fast reactor at a price competitive

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with electricity from advanced gas-cooled reactors (AGRs) and from pressurised water reactors (PWRs), it would be unwise to put the fast reactor programme into jeopardy. The Treasury also contend that a transfer of costs to the CEGB of the amounts suggested would need to be matched by an increase in electricity prices of 0.5 per cent above what they would otherwise have been to ensure no net increase in public expenditure. But the Treasury should, in principle, be in favour of the ESI funding fast reactor R&D from which it stands to benefit; and they believe fast reactor R&D is the least cost-effective part of the Department of Energy's nuclear R&D programme.

5. You will need to invite views on these arguments. The objections seem to me to be greatly overstated. There is no proposal for a reduction in fast reactor R&D spending; merely that the ESI should provide the funding as the likely beneficiary of fast reactor R&D. This would be entirely consistent with the MISC 119 report which concluded (Annex 3 of E(A)(86)2):-

"They (MISC 119) remained concerned that the Government continues to spend large sums in an area where no early direct economic return is expected. The Group noted that increased Central Electricity Generating Board funding had already been agreed for certain aspects of Atomic Energy Authority research, following the recent review of the Authority. They considered that efforts should continue to transfer more of the costs to the electricity generation industry as opportunity offers and to scale down the commitment of Government funds."

6. MISC 119 also concluded more generally that there was a need to "ensure that Government-funded R&D programmes are turned over to the private sector as far as possible to release resources for new needs"; and this proposal, accepting that the CEGB, though publicly owned, is a commercial trading body, is fully in line with this. If the Energy Secretary argues the case for the fast reactor programme on grounds of early economic benefit, this

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strengthens the case for partial responsibility being assumed by the prospective user. If, however, the Secretary of State for Energy persists in resisting option (i), the views of MISC 119 notwithstanding, agreement on this option may not be possible at this discussion.

7. Option (ii) - to identify one or more other civil R&D programmes from which funds can be transferred. E(RD)O on 26 March did not identify any appropriate candidates.

8. Option (iii) - postponing a decision until the relative merits of "pull-through" and other proposals for reallocating R&D resources can be considered in the 1986 PES. The Treasury naturally favour this option and it fits in with usual PES orthodoxy. However, I think you have good reason for resisting it in this case. It would prevent the Sub-Committee making any effective progress, which is contrary to the wish of E(A) for early action and hardly in the Treasury's own interest since the prime object of the exercise is to improve the contribution of R&D to the economy. It would also be self deluding to imagine that some magical moment will come when all competing claims on R&D resources can be considered together; some decisions must be taken as they arise, especially if (as proposed here) offsetting savings can be found; and E(RD) is precisely the forum in which it ought to be possible to take this sort of decision.

9. Option (iv) - going ahead with the proposals, with a commitment now to find the additional funds necessary in the 1986 PES. The Treasury will oppose this also, but, if option (i) proves unacceptable to the Energy Secretary, it might be the best fall-back and you may wish to press the Chief Secretary hard to accept this in the spirit of making early progress. It would leave open the source of the offsetting savings. It would not rule out having a further go at the fast reactor programme; and given the agreement at E(A)(86)6th Meeting that the total volume of resources devoted to defence R&D should be reduced, there might in practice be scope in the 1986 PES round to appropriate

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some of the savings from reduced defence R&D, though I should not be inclined to press this now. You will, however, wish to guard against any suggestion that the programme should go ahead at half the proposed level, funded only by the DTI and SERC. This would not meet E(A)'s request for urgent action on reallocation of resources; and would do little to change the emphasis of the Government's R&D programme. It is questionable also whether the scale of such a programme would be worthwhile, or whether DTI and/or SERC would in any case be willing to proceed on this basis. A further possible Treasury objection is that SERC will require extra resources from within the science budget, and that this also is a decision to be taken in PES. However, I understand that the Education Secretary has the power to decide on the allocation of resources between Research Councils within his total provision.

Defence R&D

10. The possibility of raiding the defence R&D budget may be raised; the Energy Secretary may offer this in place of his own programme. For the record, E(A)(86)6th Meeting concluded;

"the total volume of resources devoted to defence R&D ... should be reduced in accordance with the projections in the 1985 Long Term Defence Costings. The implications of this decision, in particular how best the resources released could be exploited to the benefit of the civil economy, would need to be considered by the new Ministerial Committee, but the impact of this recommendation on the total defence budget was a separate question which would need to be settled in the public expenditure context."

Although it may in due course prove possible to reallocate some funds from the defence budget as a result of this (and I assume that the Treasury and the DTI will work towards this in the fullness of time), I think it would be premature to press this now. There is no formal authority for it; and you would risk provoking outright hostility from the Defence Secretary at this

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early stage in the Committee's proceedings. So although this must be a possibility for the future, I do not think you would gain any advantage in pressing it now.

HANDLING

11. You will wish to invite Sir Robin Nicholson, as Chairman of the Official Committee on R&D, to introduce his paper, and the Secretary of State for Energy to respond. The Chief Secretary, Treasury will wish to comment on the implications for public expenditure. The Secretary of State for Foreign and Commonwealth Affairs may have comments on international implications, particularly as regards fast reactor collaborative R&D. The Secretary of State for Education and Science and the Minister of State for Information Technology may also have views about the financing of "pull-through"; other Ministers may also wish to comment.

CONCLUSIONS

12. You will wish the Sub-Committee to decide which of the Options (i)-(iv) set out in paragraph 9 of E(RD)(86)4 - or which other option - it favours as a means of financing the "pull-through" programme. If no agreement proves possible, you may wish to say that you will reflect on how to take matters further; one possibility would be an immediate report to the Prime Minister for consideration in E(A) or a smaller group of Ministers.

