

BIF for meeting.

30/1

1) Mr Turnbull  
2) Prime Minister

Relevant to your meeting  
next week on "the switch".

29 January 1985

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W.096

PRIME MINISTER

EDUCATION AND TRAINING FOR NEW TECHNOLOGIES

The House of Lords Select Committee on Science and Technology are to publish tomorrow a report examining the ability of the UK educational system to support new technologies important to the economic future of the nation. The Annex contains a summary of some of the conclusions and recommendations of the report.

2. The report, which is the work of the Sub-Committee on New Technologies, points out that shortages of skilled manpower exist, or are being forecast, in some of the new, knowledge-intensive areas of industry - particularly those involving the use of Information Technology. The Committee has tried to look beyond the immediate problems, such as those already addressed by Mr Butcher's IT Skills Shortages Committee, and to identify ways of making the educational system more flexible in order to meet the needs of new technologies in general.
3. The Committee has taken evidence from a wide selection of those inside and outside Government who are concerned about the impact which shortages of skilled people will have on UK industrial competitiveness. This problem will affect not only the new industries but also existing ones where the new technologies are necessary to improve, or even maintain, their trading position. I consider that this report is a timely contribution to the debate on the issue and that its conclusions and recommendations should be closely studied by the Government.
4. The Secretary of State for Education and Science is proposing that his Department should take the lead in preparing a response. I support his suggestion. Much of the report will

be welcome to Government and, indeed, familiar to Ministers from the discussions of the 'switch' to new technologies and engineering. However, the public expenditure implications will need to be carefully analysed and the scope for private sector funding thoroughly studied.

5. I am copying this minute to Sir Robert Armstrong.

*RAN*

ROBIN NICHOLSON  
Chief Scientific Adviser

Cabinet Office  
29 January 1985

## EDUCATION AND TRAINING FOR NEW TECHNOLOGIES

## SUMMARY OF MAIN POINTS OF THE REPORT

1. New technologies are characterised in the report as being fast-changing and demanding of a multi-disciplinary approach from those involved in technical, managerial and educational roles. Therefore individuals must have a broadly-based education in the principles underlying the new technologies and accept the need for retraining as technological change makes existing skills obsolete. The pervasiveness of IT, in particular, implies that this kind of flexibility will be needed throughout our society.
  
2. The report emphasises that education must be more relevant to industrial needs, and that both industry and the educational system must work to improve the links between them. An Education and Training Board is proposed within the SERC which would include representation from industry, academia and Government and would advise on priorities for courses. It would forecast manpower needs and would fund, with support from industry, specialised postgraduate courses aimed at building upon more general first degrees. The Committee recognise that there will be an increased demand for teachers and lecturers with appropriate skills and suggest that this should be met by differential payments for those teaching shortage subjects, and by more industrially-oriented initial, and in-service, training.
  
3. The Committee call for increased Government spending on the research base supporting new technologies and in financing the "switch" proposals, and for greater efforts to encourage girls to take up science and engineering. They recognise the contribution which industry must make and recommend that a national training policy is needed, supported by a levy, with acceptance by industry that training in specific skills is its own responsibility.

4. The report also highlights the importance of continuing education, through retraining and updating of skills. Industry is encouraged to sponsor relevant courses, with some Government support through the new Education and Training Board, and to exploit the potential of distance learning techniques, such as those employed by the Open University.

Science  
Budgets  
Part 2.