



PRIME MINISTER

## IT SKILLS SHORTAGES

At EA on 28 November a number of comments were made about strengthening the links between industry and the academic world and the need to bring market forces to bear more strongly and more flexibly on the higher education sector. The IT Skills Shortages Committee, which consists of representatives of industry and the academic world as well as Government Departments, had already considered most of the issues raised in EA, and I thought therefore it might be timely to reaffirm some of the main conclusions and recommendations for action contained in the Committee's first report ("The Human Factor - The Supply Side Problem") published in July.

2 The Committee agreed that skill shortages are now so acute that additional financial resources for higher education should be made available from the private sector. In line with the report's recommendations of a "New Partnership" between academia and the private sector, the CBI have recently confirmed their readiness to help and 29 leading IT producers and users are now members of a new IT Skills Agency under the CBI Foundation for Education.

3 First, the ITSA has pledged to provide up-to-date equipment to replace much of the obsolete hardware currently in use in our universities and polytechnics.

4 Second, the Committee agreed that industry should make additional manpower resources available, and again the CBI has confirmed its willingness to urge its members to loan key executives as visiting professors or lecturers. The exchange will not be all one-way - industry will also provide consultancy and employment opportunities to academics, and there will be joint development of conversion courses, updating programmes, increased sponsorship of students and increased opportunities for students to gain work experience.

5 Third, industry has confirmed its willingness to enter into training partnerships, possibly in the form of "training companies" with equity participation from industry, to encourage development of courses specifically tailored to meet industry's needs.

6 Fourth, the CBI will be making available to members details of how, through the use of charitable foundations, industry can ensure that its support for higher education can be made most cost-effective from the tax point of view.



7 Sir Henry Chilver has already announced the launch of a new private sector higher education Information Technology institution to provide, in particular, conversion courses on contract to industry and to undertake research. Leading firms have already pledged their support up to £15m. John Ashworth has already won industrial support of up to £5m for a similar venture at Salford.

8 Industry, therefore, is already on the move. The members of the Skills Shortages Committee feel that if we are to maintain this private sector momentum and commitment, which could amount to some £50m, there must be some commensurate move from Government to increase undergraduate places for electronic engineering, computer sciences, mathematics and physics.

9 The industrial members of my committee are already suspicious that the Government may "simply stand on the touchline applauding and then walk away". This would damage our credibility and risk leaving industry's initiative to wither in disillusionment at a time when many are anxious to forge market-driven links between industry and the H.E. institutions. Industry cannot do all that is required by itself. Welcome though it is, the support we are promised from industry will not by itself add a single IT undergraduate to the higher education system. Conversion courses are valuable, and donations of equipment and loans of staff will provide indispensable infrastructure, but if the existing skills shortage already identified (and which will become crippling if nothing is done) is to be overcome, there must be an increase in first degree students in the information technology field. Even Sir Henry Chilver can see no way of educating undergraduates without some Government contribution.

10 I fully recognise the difficulty at the present time, of finding spare resources even for the most pressing of needs. That is why the DTI and I have been so anxious to concentrate on securing additional resources from the private sector in the ways described above. But even allowing for the market-driven approach between industry and academia under the new partnership, industry will require an increased undergraduate baseline as a minimum position against which the new proposals can be brought into operation. I believe - and Norman Tebbit agrees with me - that the Government will have to help make this possible by making a contribution through the "Switch". I fully appreciate that other, broader issues are at stake but in the short term there is a danger that the development of information technology in the UK - with all that this implies for our industrial future - will be restricted, perhaps critically, by shortage of qualified manpower.



11 I am sending copies to Keith Joseph, Tom King,  
George Younger, Nicholas Edwards, David Young and  
Peter Rees.

JB

JOHN BUTCHER

21 December 1984

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