

MEETING WITH INDUSTRIALISTS ON 21 MAY 1985

A list of those attending is attached.

The Prime Minister opened the meeting by welcoming the industrialists and thanking them for coming to discuss their role in the Switch programme.

The Prime Minister accepted that industry was already making a major contribution to vocational and technical education, but more needed to be done if our science base was to be safeguarded and technological progress flourish. The Government had re-allocated £43 million for this purpose. Industry had now to take a more active role in course design, the provision of equipment, the release of staff, the sponsoring of students, and the provision of sandwich course placements.

Sir Francis Tombs (Rolls Royce, Chairman of Engineering Council) welcomed the opportunity to discuss with the Prime Minister industry's role in the development of technical and vocational higher education. He had already held a meeting with the industrialists represented at the meeting. The 22 companies involved would employ 8,100 new graduates this year; sponsored 3,250 students; provided 3,500 vacation places; sponsored £9 million research in universities and were giving them £6 million worth of equipment; in addition they would spend £1.6 million supporting university staff, and provide 436 visiting lecturers. This was an impressive record, though industry could and should do more.

It was important that the £43 million should not be spread too thinly but should be used selectively to achieve the maximum impact. The companies had identified areas where they could contribute more; in equipment, with teaching staff, with sandwich course placements, with course design. Overall, the companies warmly supported the Government's concern to redirect resources towards engineering and technological courses.

Sir Austin Pearce (British Aerospace) said it was important not to allocate the extra resources exclusively to the universities, at the expense of the polytechnics.

Polytechnics had a good record in meeting industry's needs, particularly in training people to manage new technology. They were often better at arranging shorter courses.

Sir Robert Clayton (GEC, Chairman of ITSA) noted that he had already discussed this point with the Education Secretary and provided him with names of polytechnics which ought to benefit from the Switch programme.

Sir Terence Beckett (CBI) said that there was no doubt that some university courses currently did an excellent job (eg at Essex, Bath, Salford and Aston). These offered an example to others. A systematic approach to improving courses was needed; this did not necessarily involve more money.

Mr. Toy (Ford) confirmed the valuable role polytechnics had in supplying the kind of recruit Fords required. The programme needed to take account of this. There was also a need to ensure that the polytechnics attracted the more able students. He noted that Fords relied very heavily on young graduate scientists and systems engineers for the successful application of technology to reduce costs; after three years or so many of these young people then left to go elsewhere.

Mr. Harvey Jones (ICI) believed that the problem was often one of quality rather than quantity. Unlike many other companies ICI had no difficulty in recruiting scientists and engineers with the particular qualifications they needed. Mr. Roberts (GEC) endorsed the need for industry to attract graduates of the best quality.

Sir Roy Sisson (Smiths Industries) believed that the fundamental problem was still one of the engineer's image, and it would intensify as the numbers in the relevant age group shrank over the next few years. The schools, in particular,

continued to foster an image of the engineer as a "dirty" profession. Other professions, and occupations in commerce and the City, still appeared to many young people, and their parents and teachers, to be the most attractive ones. For the immediate future, more had to be done to retrain graduates with ten years' experience, to enable them to master the newest technologies.

Mr. Alun Jones (Ferranti) had doubts about the value of his company committing extra resources on training. There was a good chance the investment would be lost as the trainees were poached by other firms. Ferranti believed the most productive links between universities and industry were to be forged at local level. Finally if polytechnic courses were to be expanded too far, shortage of suitable candidates willing to take up the places might develop.

Mr. Laister (Thorn) thought that polytechnics were generally more responsive to the needs of industry. There were broadly three ways of allocating the extra resources for technological education: increasing the numbers taking specific engineering and technological courses; incorporating elements of mathematics and technology into a wider range of courses, including arts courses; and providing more equipment. He believed the second route was a cost-effective one, and should not be overlooked.

Mr. Baldwin (Hewlett Packard) believed the discussion of industry's needs in this area still lacked a proper focus. The Butcher Committee had helped. But information technology was an all-embracing issue affecting industry generally. More needed to be done and faster in order to improve UK competitiveness; Japan was much more effective in applying new technologies throughout industry.

Sir John Clark (Plessey) said he thought that consideration needed to be given to the possibility of directing the universities as to which courses they ought to support. Moreover, the shape of university entrance requirements

restricted school curricula in undesirable ways; the universities should be pressed to be more flexible in allowing students into courses. There was a need too to raise the quality of management at all levels of the enterprise, as the Japanese had done. This country was bedevilled by custom and practice rigidities which prevented new technology from being exploited to the full. These needed to be tackled.

Mr. Messervy (Lucas) believed that a highly selective approach to university support was required. Some university courses were simply not up to standard. Sir Keith Joseph noted that the Government was moving towards this kind of selective approach, and linking the funding of university courses to their performance. Mr. Messervy would pursue his points with the UGC outside the meeting.

Sir Austin Bide (Glaxo) stressed the possible contribution of the Open University, especially in relation to continuing education and training. Including smaller companies in the effort to improve technological education was crucial. It might also be easier for schools to relate to smaller, local enterprises.

Mr. Thornton (Debenhams) agreed that smaller companies had an important role to play. His own firm had now divided itself into smaller, autonomous units in which the managements could take an equity stake, and these were proving more attractive to highly qualified people in information technology etc. It was no good industry arguing that the onus was on others to change. It also had a duty to change itself.

Mr. Lomer (Racal) agreed that the funding of courses needed to be selective both in universities and in polytechnics. His company would certainly help in the design of courses, but providing lecturers was more difficult. Distance learning would be a real help here. The BBC too had a role in changing attitudes and introducing a more technical input into schools.

Mr. Hughes (Logica) believed that the real bottlenecks

occurred within the schools system at present. The Government needed to consider paying higher salaries to maths and science teachers to ensure a better balance of teaching. Developing close relationships between companies and schools was a priority. One method would be to publish an "adoption" register, listing the links between a school and a number of local companies. Sir Terence Beckett confirmed that the CBI had this idea in hand, in connection with the launch of Industry Year in 1986.

Mr. Utiger (Tube Investments) said his key concern was to introduce new technology into more traditional processes. To do that effectively, people with multi-disciplinary skills were needed. The UGC needed to ensure that multi-discipline courses were expanded in the context of the new programme.

Mr. Whyte (National Electronics Council) reminded the meeting that under 2 per cent of chartered electrical engineers at present were women. Encouraging more girls to come forward for engineering and technical courses was a key way of increasing throughputs.

Sir Edwin Nixon (IBM) said his company would be intensifying its efforts. There should be a strong emphasis on retraining as the best way of meeting immediate skill shortages. Information Technology Year 1982 had done much to alert people to the possibilities of the new technologies and to encourage their use, but more needed to be done to follow up earlier initiatives, to ensure that new technologies were actually applied on the ground.

Sir Kenneth Corfield (STC) believed that though the discussion was focussing on the Switch programme, expenditure on higher education needed to be assessed as a whole, and priorities re-assessed. Much of the responsibility, however, rested with industry, which had to make more effective use of the enormous sums it already spent on training.

Sir Terence Beckett noted that a number of themes had emerged

from the meeting. First, there were the immediate shortages in the information technology area. The CBI had set up the Information Technology Skills Agency to tackle this problem. Secondly, there was the medium-term question of the contribution higher education could make to industry with which Sir Francis Tombs, as Chairman of the Engineering Council, was particularly concerned. Thirdly, there were wider issues, including the attractiveness of engineering as a profession, and the balance of educational provision generally. It would be essential to concentrate more effort on the schools. Smaller companies which had a key part to play in developing the enterprise culture should be brought into this work. Industry Year in 1986 provided a real opportunity of taking this forward.

The Prime Minister, summing up the points made in discussion, noted that industry sometimes needed to adopt a wider concept of self-interest. Unless private enterprise was willing to ensure enough was done to encourage engineering and technical education and training, Government would have to step in. But they could never do the job as well as industry itself. She accepted that teachers could do a great deal to get the right image of industry across; industry needed to encourage them to do so, to support them in their work and to give clear indications of the kinds of skills it was looking for. She agreed that more attention to be paid to improving the information technology skills base, and that was why she had called the meeting. The Government had already done a good deal, however, and nearly every school, including primary schools, now had a micro computer. The technical and vocational education initiative had a major part to play. Of course, more needed to be done and that was where industry came in. The UK's record on the research side was a good one; it was the practical application of research which we needed to concentrate on now.

The meeting would be followed up through the work of the Information Technology Skills Agency, under Sir Robert Clayton's Chairmanship. Sir Keith Joseph would also arrange

for his Department to pursue particular points raised at the meeting with the industrialists concerned, and would arrange further discussions as appropriate with industrialists and those involved in higher education. Universities and polytechnics would only receive the additional funds to be provided under the second phase of the programme if they could demonstrate extra industrial support. She would accordingly arrange a further meeting early next year to take stock of what had been achieved in the interim. This would give the industrialists themselves an opportunity to report progress, and to consider how the most could be made of Industry Year.

MARK ADDISON

21 May 1985



10 DOWNING STREET

MILANI

bc John Wiggins (CO)
P. Warry (B.C. Unit)
Nick Towers
(Press office)

From the Private Secretary

22 May 1985

Dear Elizabeth

I attach a note of yesterday's meeting with industrialists.

Also attached is a copy of a letter from Viscount Sandon, which we have acknowledged. You will have seen the letter from Mr Messervy (copy attached to those who have not already had one), and I should be grateful for a draft reply for the Prime Minister to sign, by Monday 3 June.

I am copying this letter to the Private Secretaries to the Secretaries of State for Energy, Scotland, Wales, Employment, Trade and Industry, Minister without Portfolio, Parliamentary Under Secretary of State for Industry and to Sir Robin Nicholson.

~ ~

Mark Addison

Mark Addison

PS. Also attached is the note in Francis Tombs
passed across after the meeting.

Miss Elizabeth Hodkinson
Department of Education and Science.

SM



10 DOWNING STREET

Press Notice

TOP INDUSTRIALISTS SUPPORT 'SWITCH'

The Prime Minister today met 26 of Britain's leading industrialists at No 10 Downing Street, to discuss their part in the national effort to increase the number of students studying engineering and technology in higher education.

With the Prime Minister at the meeting were the Secretaries of State for Education and Science, Scotland, Trade and Industry, and Employment; the Minister without Portfolio; and the Parliamentary Under Secretary of State for Trade and Industry, Mr John Butcher.

The industrialists said that they welcomed, and fully supported, the Government's initiative to increase the output of engineering and technology graduates and postgraduates - the 'switch'.

They committed their firms to giving substantial and continuing practical help to the universities and polytechnics benefiting from the Government's programme. They offered more up-to-date equipment, more help with teaching staff and with the design of relevant courses, and they undertook to provide more sandwich course places and to sponsor more students.

It was agreed that industry's response should be channelled through the Information Technology Skills Agency, set up under the CBI's education foundation. Its chairman is Sir Robert Clayton of GEC. The Secretary of State for Education will also be holding further detailed discussions with the industrialists and with higher education.

The Prime Minister will be holding a further meeting with the industrialists at the beginning of Industry Year 1986, which will give them an opportunity to report progress.

21 May 1985

Telephone 01-930 4433

NOTES TO EDITORS

1. A full list of the industrialists who attended the meeting is attached.

2. The Engineering and Technology Programme - the 'switch' - provides £43 million of Government money to pay for more students in higher education to study engineering and technology over the next three years (DES Press Notice 62/85, 19 March 1985).

3. In the first phase of the programme, announced last month (DES Press Notice 83/85, 3 April 1985), 20 universities will receive about £3.2million to pay for an extra 579 engineering and technology students from this autumn. Second phase admissions will take place in autumn 1986, with allocations to be announced this summer.

4. Other significant education initiatives include:

- a £38 million programme for information technology in higher education between 1983 and 1986 (announced in 1982) for the creation of an additional 5,000 places in electronic engineering and computer science at higher diploma, degree and postgraduate level in polytechnics and universities
- the universities' plans to increase student intakes by some 3,000 in both 1984/85 and 1985/86, this increase being composed mainly of science and technology students
- the programme of the National Advisory Body for Public Sector Higher Education for a substantial shift of resources into engineering and other vocational provision in polytechnics and institutes of higher education
- £13 million through Education Support Grants in 1985/86 to help equip further education colleges at non-advanced level to ensure that students in vocational subjects receive an education which takes account of the industrial and commercial applications of IT. Further funding will be available in 1986/87 and subsequent years.

LIST OF INDUSTRIALISTS

Sir Austin Pearce (British Aerospace)
M Bett (BT) in place of Sir George Jefferson
Robert Thornton (Debenhams)
J D Alun-Jones (Ferranti)
S Toy (Ford Motor Company)
Sir Robert Clayton (GEC and IT Skills Agency, CBI)
Derek Roberts (GEC - Director of Research)
Sir Austin Bide (Glaxo Group)
D A Baldwin (Hewlett-Packard)
Sir Edwin Nixon (IBM(UK))
J H Harvey-Jones (ICI)
R G C Messervey (Lucas Industries)
Viscount Sandon (Deputy Chairman National Westminster Bank)
Sir John Clark (Plessey)
G Lomer (in place of Sir Ernest Harrison) (Racal)
H Orr-Ewing (Rank Xerox)
Sir Roy Sisson (Smith Industries)
Sir Kenneth Corfield (STC)
P Swinstead (System Designers)
Peter Laister (Thorn EMI)
R E Utiger (T I Group)
Sir Terence Beckett (CBI)
Sir Francis Tombs (Rothschilds/Rolls Royce)
Robin Duthie (Scottish Development Agency)
J S Whyte (National Electronics Council)
P A B Hughes (Logica Holdings)