



W.0103

5 February 1985

PRIME MINISTER

THE SWITCH TO ENGINEERING AND TECHNOLOGY

I support the proposal by the Secretary of State for Education and Science to increase the number of first degree graduates and postgraduates in engineering and technology.

2. There is widespread, although sometimes poorly-documented, evidence that the shortage of skilled manpower is a significant problem in many parts of industry. This is especially true with respect to Information Technology skills which are needed not only by electronics and computer companies but, increasingly, by industry as a whole in the drive to modernise production and to resist foreign competition.

3. Last week, the House of Lords Select Committee on Science and Technology published their report on Education and Training for New Technologies and identified skills shortages, again particularly in the software, systems and electronic engineering fields of IT, as a major obstacle to improvement in our international competitiveness. They recommended an increase in the number of places for engineering and technology students, in fact well above the level now proposed by the Secretary of State.

4. The IT Skills Shortages Committee under Mr Butcher have proposed short-term measures to help meet the demand, through re-training of existing personnel and conversion courses for both technical and non-technical graduates. But the Committee believe that an increased supply of graduates and postgraduates in the appropriate skills will be essential before the end of the decade.

5. The Secretary of State's proposal to create 600 new first degree places by the end of the decade, together with an additional 500 postgraduate places a little earlier, does not go as far as most estimates indicate will be necessary - the Director of the Alvey Programme has estimated a shortfall of 5000 graduates in the same time-scale and the MSC even more!

6. If the Secretary of State's proposals are accepted, it is essential that the private sector make a full contribution in cash and in kind through, for example:

(a) allowing their staff to act as part-time lecturers in universities;

(b) offering IT equipment to universities on generous terms;

(c) paying consultancy fees to university staff with IT skills so as to raise their total remuneration to a more competitive level compared with opportunities in the private sector and in universities abroad.

7. The private sector component of this initiative is so important that I recommend that before any Government decision is announced, you should see the Chairmen of the dozen or so companies principally involved and ensure their commitment to this part of the initiative.

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

RBN

ROBIN NICHOLSON
Chief Scientific Adviser

Cabinet Office
5 February 1985