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CABINET

MINISTERIAL COMMITTEE ON ECONOMIC STRATEGY

INMOS

Memorandum by the Secretary of State for Industry

INMOS

In my minute of 13 June to the Prime Minister, which was copied to members of the Committee, I said that the NEB had decided to undertake a major review of the INMOS project in the light of the company's new Corporate Plan which the NEB expected to receive that week. I recommended, therefore, that a further discussion of the project in the Committee should be deferred until the outcome of the review was known. The review has now been completed and the NEB Board have considered it and put their recommendations to me: they have concluded that the changed circumstances would now justify locating the company's first UK factory in South Wales at a site yet to be chosen, and have invited me to authorise the NEB to subscribe £25m more for the capital required. The purpose of this note is to invite colleagues' views on this proposal.

2 It is now over 7 months since the NEB decided to support INMOS in its choice of Bristol as the site for its first UK factory. Since then, as the Committee will recall, the matter has been discussed by Ministers on a number of occasions, first in E(EA) Committee and then in E Committee itself, as well as in a number of exchanges of correspondence. At E(EA)(80)5th meeting, it was agreed that I should authorise the provision to the NEB of the further £25m required for the venture subject to the subsequent agreement on the location of the factory. At E(80)10th meeting, a majority favoured construction of the factory at Cardiff and were not prepared to allow an IDC for the Bristol site. Subsequent discussion turned on the possibility of GEC taking a substantial stake in the venture but that possibility came to nothing.

3 The NEB's review has been undertaken with thoroughness. The inquiry has been led by Mr George Jefferson, a part-time member of the NEB, and at present Deputy Chairman of British Aerospace Dynamics Group. The NEB staff involved with INMOS took no part in the review: Mr Jefferson was supported by his own Group's experts in semiconductors and by two firms of North American consultants specialising in this field, recommended by Sir Robert Clayton, the

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Technical Director of GEC (who is also an NEB Board member). The way in which the review was conducted and the reasons for the conclusions reached are described in a letter sent me by Sir Arthur Knight: I think colleagues will wish to read it and a copy is attached. I have discussed the NEB's conclusion with Mr Jefferson and with Sir Arthur Knight and I am satisfied that the appraisal has been conducted dispassionately. I understand that the NEB were unanimous in the recommendations they have now made to us.

4 On the earlier occasions we have discussed this project some colleagues have been primarily concerned about the location issue and the revised proposal to put the factory in South Wales meets this concern. There have also been misgivings about the extent to which INMOS might use Government funds to draw scarce UK technical manpower away from competitors. On the other hand, some colleagues have been more concerned about the cost to the taxpayer - not only the second tranche of £25m that would be drawn down over the next 18 months but also the potential additional costs - perhaps as much as £50m - to which the NEB would be exposed should this inherently risky venture fail. This point remains, and some may feel it is even enhanced by the additional Exchequer costs of regional aid. Apart from substantial EEC benefits available for projects in steel closure areas, the regional grant element which the project would automatically attract is unlikely to be less than £3m and discretionary Section 7 assistance could add a further £4m. Our current policy, as stated in the NEB Guidelines, is to make this sort of assistance available to NEB companies on the same criteria as are used for companies in general but if these benefits were not made available to INMOS (either because the discretionary element was withheld; or the automatic element was offset by a corresponding reduction in the £25m provision; or both) the company would be forced to borrow, to the extent that its borrowing limits permitted, and the resultant added debt burden would seriously increase the risks to which it is exposed. The NEB's advocacy of the proposal was based on the assumption that the maximum regional benefits would be available. The Secretary of State for Employment has rightly indicated that further delay itself might jeopardise the project and with it the potential employment opportunities (which under the revised proposal would now be in the steel-affected area of South Wales). I believe we must come to a clear decision on the proposal now put to us by the NEB. We are under strong Parliamentary pressure to do so and the results of the NEB review are likely to be public knowledge very soon.

5 I would have found it easier to support the NEB proposal if they had been able to come forward with some private partners. The NEB have explored the position but have concluded that although it might be possible to find a buyer now at a knock-down price, the earliest practicable date for the disposal of their shares on reasonable commercial terms is likely to be 1983/4. If the project went ahead, I think it should be on condition that the disposal was completed in that year. In any event, our current PES forecasts do not provide for a continuing NEB high technology role beyond then. The NEB believe that the inevitable further delay that would be

/entailed ...

entailed in seeking private partners could not be tolerated by the company. However, this does not rule out the possibility of the NEB continuing to seek private capital after further NEB support has been committed (although this would necessarily require the agreement of the entrepreneurs running the company). One such tentative possibility is a link with Standard Telephones and Cables, but experience suggests that ITT, the American parent, might not share its view.

6 The risks are not easy for us to assess, but it is noteworthy that those well qualified to judge who have made a close examination of the project have come away with a high regard for those engaged on the project and the work so far accomplished. I could not myself recommend such a project if we were starting afresh, but we are faced with the decision whether or not to build on something that is half-finished. If we refuse the second tranche of £25m the NEB will be left with an extremely risky and entirely US-based project. If it failed, the NEB would be exposed to substantial further costs. A refusal would also result in politically damaging accusations of cutting off 2,000 potential jobs in South Wales at a time when - in the light of this last week's unemployment figures - these opportunities would be particularly valuable. Provision for the NEB's further subscription of £25m exists within its PES allocation: Inmos would envisage drawing £15m in 1981/82 and £10m in 1982/83.

7 On balance, I come down in favour of accepting the NEB proposal, but I know colleagues will wish to discuss this collectively.

K J

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CONFIDENTIAL

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COMMERCIAL IN CONFIDENCE

AWK/B/sar

18th July, 1980.

The Rt Hon Sir Keith Joseph, MP, Bt,
Secretary of State for Industry,
Department of Industry,
Ashdown House,
123 Victoria Street,
London. SW1E 6RB

Dear Keith,

As you know I decided to conduct a review of the INMOS project because six months had elapsed since we decided, on the basis of INMOS' 1979 corporate plan, to approve a second £25 million in NEB funding for the project. The review which has taken about four weeks, was conducted by a team under Mr G R Jefferson, Chairman and Chief Executive of British Aerospace Dynamics Group and an NEB Board member. In laying down detailed terms of reference for the technical and commercial evaluation of the project, Mr Jefferson drew on advice from Sir Robert Clayton, Technical Director of GEC Limited, also an NEB Board member.

The review was split into four sections:

(a) An examination of INMOS' management structure and of the company's progress to date in establishing a capability in the following areas: design, production, marketing, and cost and quality control.

(b) A detailed technical evaluation of those INMOS products already at the prototype or design stage. This evaluation was carried out by a team from the British Aerospace Dynamics Group who had themselves established a MOS chip-making facility at BAe in Stevenage.

(c) Two studies, by independent consultants (DATAQUEST and MOSAID, who are both leading North American consultancy firms) of the world MOS semiconductor market and of INMOS' position in that market, with particular reference to the fact that future supply might exceed demand (or vice versa).

(d) An examination of INMOS' financial plans including sensitivity analyses based on relatively pessimistic assumptions on price, market growth, and the speed with which the company would gain market share.

The review team concluded that INMOS' management structure is generally sound and that the company is particularly strong in design and production. The technical evaluation established that INMOS' first products (the 16K static RAM and the 64K dynamic RAM which have already been announced) are at the leading edge of MOS technology and both products are on target. The independent studies of the world market for MOS products suggested that, because INMOS' major competitors have made very slow progress, the INMOS 16K static RAM could well be amongst the first on the market and, provided the design is successful, the INMOS 64K dynamic RAM should also be well within the window of opportunity. INMOS has assembled a very talented team at a time when design skills appear to be at a premium. For the future, the company has a well-develped series of new product plans encompassing inter alia an extension of its current and CMOS technology.

The review team's examination of INMOS' financial situation shows clearly that the high rates of UK inflation in the past year have reduced the purchasing power of the £50 million equity envisaged in the company's financing plans. This, and in particular the increase in UK building costs, have greatly enhanced the case for siting the company's first UK production unit (UK1) in an Assisted Area, where the company can take advantage of grants and other financial assistance which might be available.

At the same time the review team found that the technical progress made by the company in the last 6-9 months has greatly increased INMOS' confidence in its ability to manufacture its products successfully in the UK. As a result, although co-location of UK1 and the UK technology centre was a desirable objective, the company is now satisfied that it would be possible for UK1 and the technology centre to operate separately, provided the geographical separation is reasonable.

The NEB Board considered the findings of the review team at its meeting on 18 July, 1980. It agreed that in the light of progress made by the company to date, it would be unwise to call a halt to the project at this stage.

The Board considered whether, if restricted to the initial £25 million, INMOS could be developed into a profitable company, thus enabling the NEB to dispose of its shareholdings at a profit. The Board noted that in this eventuality the company would probably close down its UK operations and concentrate all its resources on the Colorado Springs factory. The sensitivity analyses done by the review team indicate that, on the most pessimistic assumptions, the risks attached to this option are excessively high, though it is at least conceivable that the Company would survive. In any event, gearing would remain very high for at least five years and the earliest practicable date of disposal of the NEB's shares at a profit would be mid-1985.

On the other hand the review has demonstrated that, with an additional £25 million in NEB funding, INMOS could meet the targets set for it considerably earlier and at less risk. Peak gearing would be much lower, and the earliest practicable date for disposal of the NEB's shares would be brought forward to early-1984. This option would fulfil the original aim set for INMOS since it would secure transfer of INMOS technology to the United Kingdom and would result in 75%-80% of the company's output being in this country by 1984/85. The INMOS technology centre would be preserved, and with it the prospect of a UK-based microprocessor design and manufacturing operation. However, the Board noted that sensitivity analyses done by the review show a distinct financial advantage in favour of the first UK production being sited in an assisted/steel closure area because of the Government grants and EEC loans which should be available to offset the impact of UK inflation, in particular on building costs. The relevant financial comparison is as follows:

	COMBINED CENTRE IN BRISTOL	FACTORY IN ASSISTED AREA
1984 Book Value/Share (£)	12.30	12.76
1984 PBT (£M)	29.6	30.0
Peak Borrowing (£M)	45.2	35.3
Peak Gearing	0.88	0.66

These points were brought to the attention of the Directors of INMOS. At a special board meeting called on 17th July, 1980, the directors of INMOS decided unanimously that the Company's first UK production unit should be sited in South Wales, provided that this would result in the financial assistance, including discretionary grants, outlined above. This decision was endorsed by the NEB Board on 18th July, 1980.

The NEB therefore agreed that it should confirm its request to the Government for a second £25 million of public funds for INMOS. We have looked at private sector financing possibilities and, though aiming at private investment as early as is practicable, have concluded that the prospects look unattractive at this stage and we should re-examine this when the project is more advanced. The Board hoped that, in the light of the comprehensive review it had undertaken, the Government would be able to give speedy consent to the proposal. I must emphasise that there is a need for an urgent positive decision by the Government, because if the Government decides not to grant the second £25 million the NEB and the taxpayer are currently wasting money on the INMOS facilities in the UK which would be better spent pushing ahead with a purely US company. There is therefore great urgency for a Government decision in favour of the NEB's proposals.

Yours

Arthur.