

FROM: THE RT.HON. SIR KEITH JOSEPH, Bt, MP



Some of this paper almost takes my breath away because I.M. has been in charge of some of these things in other times in a position to do something about them for years.

Rt.Hon. Mrs. Margaret Thatcher, MP,
House of Commons,
Westminster, S.W.1.

3rd February 1977

Ian Margaret.

Other items are not really accurate.
KS

Since we have no Policy Group into government relationship with Science and Research, I sought permission from his Minister for a meeting with Sir Ieuan Maddock, Chief Scientist - until he retires at the end of March 1977 - at the Department of Industry's National Physical Laboratory. Here is a note of the points he made in discussion. I am sending copies to Geoffrey Howe, Ian Gilmour, Angus Maude, Norman St. John Stevas, John Biffen and David Howell - and to Chris Patten of CRD for information.

I think Ieuan Maddock would be willing to see any one of us, or help - once he has retired.

If colleagues wish to pursue any of the subjects, perhaps he will get in touch with Ieuan Maddock when he retires. His private address is 13, Darell Road, Caversham, Reading, Berks.

Confidential *Keith Joseph*



February 8th

Mayant

12.5% ^{over} _{the}

Refrance the problem of getting
the good brains to go into
industry - Techno. Managers -
I have been impressed by
the American practice of
movement between Universities
and Industry by the
top 'academics' / 'Managers'.

Something to encourage
here?

We have been talking Aden
about the 10 years. Or you
heard to do people like Douglas they do it - and
most research labs couldn't carry on without industrial
consultation

FROM: THE RT.HON. SIR KEITH JOSEPH, Bt, MP

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KJ/SMC

Adam Butler Esq.,
Leader of the Opposition's Private Office,
House of Commons. 8th March 1977

Ivan Adam.

Thank you for letting me see Margaret's notes on my minute recording my talk with Ieuan Maddock. I note her vivid comments, and will very much bear them in mind.

Here is the paper returned as you request.

Ivan.
Keith

Confidential

MINUTE OF A MEETING WITH SIR IELUAN MADDOCK, CB, OBE, FRS
CHIEF SCIENTIST, DEPARTMENT OF INDUSTRY
on 18th JANUARY 1977

GENERAL

Essential to encourage enterprise and innovation -
by incentives, by climate of confidence and by sanction
of receivership for failure.

TECHNO-ENTREPRENEURS

There is a need to encourage techno-entrepreneurs
who, by initiative, will increase value added. Lower
taxation is one of the ways to encourage them. The
cheaper is money, the better for them.

He does not think NRDC is particularly good at
encouraging techno-entrepreneurs. They have only
had two winners - and their licence income is used
to finance their own staff. He would not fight to
keep NRDC. He did say a kind word for NEB as a
source for techno-entrepreneurial finance.

The best way for government to stimulate techno-
entrepreneurs is to put a safety net under suitable
projects with the banks. For instance, I.C.L. could
not persuade banks to finance the licensing of a new
series. The government gave a temporary guarantee
to the banks: as soon as they were making a profit
from the venture, the guarantee was withdrawn.

He stressed that such temporary assistance educates the banks to increase their capacity to discriminate between winners and losers.

TECHNO-MANAGERS

This is a breed common abroad that we do not foster. When only a minority was educated, there was a mass of under-educated talent. Now, with most talent going to university, many - who would be techno-managers - get diverted towards academic life. There are plenty of designers, but not nearly enough techno-managers, production- and industrial-engineers.

He recommends that the university intake should be reduced and the polytechnic intake increased. As talented students reach the polytechnics, so talented teachers will be attracted.

Techno-managers can be produced by taking the best from universities and polytechnics and giving them one additional year at polytechnics of first-class teaching with a guaranteed job at the end. This need not be done by government. Big firms could do it by way of scholarships. Government could stimulate it to be done.

MANAGEMENT

Management is the problem. There is plenty of good management - and some industries are conspicuously well-managed, such as pharmaceuticals, food production, chemicals. Even in the problem areas, like mechanical engineering there are first-class firms - Racal: Acrow: Lucas: Smith: J.C.B.

Unions cannot be blamed as such. Look at the contrast between the same union in the same area under different management, represented by B.S.A. on the one hand, and B.S.R. on the other - one bankrupt, and the other a world-beater.

RETRAINING

Retraining is essential. Techniques develop so fast. The best firms retrain already. Government should consider cutting company taxation to encourage the Weinstocks of this world to open their (closed) technical schools again.

TOO NARROW A RESEARCH FOCUS

Maddock is well known for his constant argument that we have put too much research talent into air, nuclear and computers. He would steadily reduce government support going into these industries, relying upon firms to diversify as Hawker Siddeley and GEC have done.

He accepts that we would have done better in nuclear had design been contracted out to the contractors instead of having been kept to the non-market-conscious client.

SUBSIDY, IF ANY, SHOULD BE MEAN

He is sure that if government does help a firm it should be mean - to keep the firm hungry and desperate to keep afloat by cutting its costs and increasing its market. He reckons that this has been successfully done with I.C.L.

RESEARCH

At best, we are only likely to provide 7% of the world's R. & D. - say 93% of R. & D. will be carried out abroad. It is therefore sensible to licence in - as the Japanese have done. If we reduce support to air, nuclear and computers, licence-in will become more used for survival.

RESEARCH ESTABLISHMENTS

(1) Government Research Establishments

Harwell, and the A.E.A. establishments, should be squeezed financially to save money, requiring them either to increase their earnings from industry or to disperse some of their talent.

Warren Springs, the National Engineering Laboratory and the National Physical Laboratory should all have their budgets cut and be made to earn more of their keep or disperse their staff.

The National Maritime Institute is now required to cover 80% of its cost.

All government establishments' budgets should be cut by one-third to begin with.

The National Physical Laboratory is our bureau of standards, but is as big as the American Bureau of Standards! It should be eased towards a European function.

(ii) Research Associations of Industry

These should have the job of increasing the transfer of technology. They should process and distribute, not do research. Research associations tend to be headquarters of the NIH syndrome. P.E.R.A., for instance, is re-inventing the wheel, while neglecting transfer and retraining which they are good at.

PURE RESEARCH

Between the National Science Research Council and all the research councils and the universities, we are spending nearly £400million on pure science. It should be our aim to shift part of the spending from government to industry, which should be encouraged to support some of the early applications of research, hiring the great talent available in university for limited tasks.

It does

For pure research, government must set an arbitrary level and use A.B.R.C. - the Advisory Board of Research Councils - to thrash out the allocation. It is possible to concentrate on the relatively low budget activities at which we are good, absorbing knowledge from the big-budget countries and putting it to use. Chain & Crick were low-budget people. Sharma, the astronomer, is an example of a man who has a low budget and uses the raw material coming from other countries most effectively. We must resist the danger of seduction into big science.

GOVERNMENT AS BUYER

Government purchasing can be the cause of huge success or failure on world markets. Defence has led the way in encouraging design for its own purposes with world markets in mind. The Post Office, on the other hand, has so ignored marketability as virtually to demolish our world position in tele-communications.

There are two different sets of problems - one where the government is a giant purchaser and the other, where public purchasing is huge in total but widely dispersed in decision-making (police, hospitals, schools, etc.)

In both, the government has to create a situation which harnesses human motives to secure design and production to serve world markets as well as their own.

Defence do it best. It is enlightened self-interest because the product will be cheaper, the bigger the market and the longer the run. But the purchaser, at the moment, has no direct financial incentive.

Kear Joseph

KJ/SMC
18.1.77.

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