

PRIME MINISTER

## CABLE TELEVISION

You will remember that the ITAP Report was submitted to you in March. We subsequently sent it to DTI for their comments, and Robin Nicholson has been considering the best way forward.

(summary at the back).

The Report itself is at flag A. DTI's response is at flag B. Robin Nicholson's proposals as to how we should now proceed is at flag C and Policy Unit advice at flag D.

Some of the ITAP recommendations are uncontroversial and have already been effectively implemented. The one key outstanding issue is the extent to which BT and Mercury should allow cable companies access to their ducts and overhead wiring poles, and this needs to be considered further between DTI and ITAP.

Content to accept Robin Nicholson's advice that DTI should be asked to update their draft response, and send it to the Chairman of ITAP suggesting that the Minister of State for Information and Technology and ITAP get together to discuss the Report and DTI's response?

Yes not

Mark Addison

MARK ADDISON  
6 August 1985



CP

(B)

M/H on 12 August 1985 speaks RN o/v.  
MAY 2/8

2 August 1985

MR ADDISON

c Sir Robin Nicholson

CABLE TELEVISION

All the responses to the ITAP Report to the Prime Minister on Cable Television have now been received. The Report's recommendations were:

1. The Government to restate its support for the cabling of Britain. DTI Ministers have made a series of supportive public statements.
2. BT and Mercury to allow Cable companies access to their cable ducts and overhead wiring poles on equitable terms. Predictably BT are not keen on this. They maintain that the Cable ventures in which they are involved operate on an arms length basis and bear their full share of the cost of the cable ducts etc. BT (reasonably) say that access to other Cable companies would only be practicable if BT retained full control of the network planning (and by presumption the actual cable laying). But BT also want control over the day-to-day operations, which is difficult to justify on economic or operational grounds. They should be pressed to withdraw this stipulation.
3. Cable franchises should be allowed to develop their areas more gradually, provided they do not just cable the lucrative areas and leave the remainder. This is agreed.
4. Master Antenna Television (MATV) should be licenced. (This allows direct reception by blocks of flats, hotels etc.) This has been implemented.
5. Cable franchises should qualify for the Business Expansion Scheme and other forms of assistance. Cable

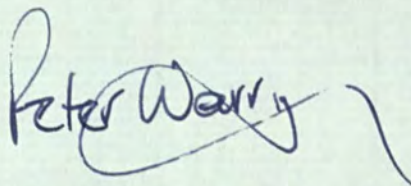


is not excluded from BES but there is no case for giving them especially advantageous terms. The Chancellor has, however, made some minor amendments to this year's Finance Bill to help the tax position of, amongst other, Cable companies.

6. The Government should fund some demonstration Cable technology projects. DTI are happy to support this if they are given additional funds. This is probably best left such that Cable companies can apply for grants under the normal Support for Innovation Schemes but that no extra funding should be given to the DTI.
7. The Westminster Cable Company should link up the Houses of Parliament and Government Offices into their cable network. This can be considered when Westminster Cable produce a definitive proposal. It will need to be considered separately by the House Authorities.

#### Conclusions

We recommend that DTI press BT further to ensure that no wholly unreasonable terms are placed on Cable companies for using its cable ducts. Subject to this proviso, the Prime Minister could accept the ITAP recommendations qualified as above.

A handwritten signature in blue ink that reads "Peter Warry". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

PETER WARRY





(C)

W0589

MR ADDISON

2 August 1985

ITAP REPORT ON CABLE SYSTEMS.

We now have the Secretary of State for Trade and Industry's comment on the second recommendation of the ITAP report (your minute of 23 July) as well as his general comments and a draft reply to ITAP (your minute of 30 April) and the Home Secretary's comment on MATV systems (your minute of 13 May).

2. As you will have realised, I have had some difficulty in deciding what to recommend or where we go from here. ITAP was set up as a group of people who are immersed in the IT market. As such they tend to discount the legislative and administrative difficulties of Government. On the other hand DTI's response is largely a defence of their existing policies with little imaginative comment on ITAP's proposals. The recent DTI report of BT's reaction to the second recommendation can only be described using Mandy Rice-Davies' well-known epithet.

3. Cable is still important as a potential growth sector of the IT economy. ITAP's views should be taken seriously and are best considered in discussion with Government rather than in the public arena (for this reason ITAP deliberately did not ask for permission to publish their report).

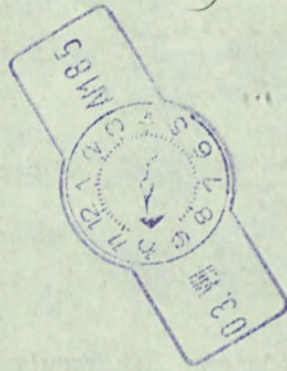
4. Therefore my recommendation is that DTI should be asked to include their recent information on the BT matter in their draft response, to update the rest of the response if necessary and for the Secretary of State to send the response to the Chairman of ITAP with a suggestion that the report and response should form the basis for a discussion between the Minister of State for Information Technology and ITAP. I believe the Minister of State would welcome this. After the discussion DTI and ITAP could consider whether it is necessary to revert to the Prime Minister on this matter.

RBN

SIR ROBIN NICHOLSON  
Chief Scientific Adviser



Broadcasting ABS AS



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## SUMMARY OF ITAP CABLE REPORT

ITAP have identified that the cable industry faces considerable problems in attracting finance because of the difficulty of assessing the likely market for cable services, the size of the initial investment, the length of the payback period, the slow progress in settling licences and - above all - the low confidence in cable which now exists amongst potential backers, especially in the City. They suggest that Government should help restore confidence by a declaration of its continued commitment to cable and by a series of specific actions to back this up.

2. ITAP remain convinced of the long-term importance of interactive services on cable, but are aware that the current market demand is for non-interactive, entertainment services and suggest a number of ways in which cable operators can minimise their initial costs without prejudicing future flexibility. These include allowing cable systems to grow more gradually than at present, from one or more points within a cable franchise, to a size which may exceed the current franchise area, and licensing existing communal aerial systems (eg Master Antenna TV-MATV) to receive satellite broadcasts of programmes intended for distribution on cable systems in order to increase audiences and revenue.

3. Investment in cable needs fair competition in the cable industry and ITAP are disturbed by the status which British Telecom has achieved, both as a participant and as a source of finance. They have identified that the underground ducts and other pathways for carrying cable are major elements of national infrastructure for cable, because they represent such a high proportion of the total costs involved; thus BT enjoys an enormous commercial advantage over other cable providers because of its access to existing telephone ducts, poles, etc, which it can use for its cable operations. They strongly recommend that BT (and eventually Mercury) be required to lease space in ducts, etc, to other cable providers on reasonable terms to correct this imbalance and to encourage fairer competition.



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4. ITAP also believe that DTI assistance schemes should be made more available for cable in the light of the job opportunities created by the industry (10,000 permanent jobs would result in network operation and support alone, if half of the homes in Britain were cabled). They suggest that DTI should part-fund some demonstrator applications of advanced cable technology, to show to industry, commerce and the public what is possible, and that specific assistance might be given to cable companies through the Business Expansion Scheme by allowing corporate shareholdings in cable ventures up to a limit of £0.5m.

5. As a final recommendation, to demonstrate Government awareness and interest in cable, ITAP suggest that any proposed IT facilities within the Palace of Westminster should be linked with the cable network under development in the Westminster area.

- 2 -

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## INFORMATION TECHNOLOGY ADVISORY PANEL

## CABLE SYSTEMS : A REASSESSMENT

BACKGROUND

1. The first report by the Information Technology Advisory Panel on Cable Systems was published in February 1982.
2. This report concluded that the development of cable systems could generate considerable economic activity and would stimulate high technology industry, with consequent benefits both in the UK and for export. In particular, although the initial appeal of cable systems would be in the provision of additional entertainment services, these would eventually form the basis for wideband interactive communications between homes and businesses and would promote the development of a society rich in information and its uses.
3. The report recommended that the Government should encourage the introduction of cable systems (and also Direct Broadcasting by Satellite (DBS) which was seen as complementary), that it should set technical standards and grant licenses and that a "Cable Authority" should be set up by early 1983. The report also recommended that more co-ordination was needed to encourage the industry, both within Government (where several departments had an interest) and between Government and the private sector.
4. Following ITAP's report, the Hunt Committee examined the subject and reported in October 1982. The Government reacted swiftly to the recommendations of this report and the Prime Minister announced their backing of cable systems in December 1982. Cable systems were seen as important not only as a stimulus for the technology (which had wide applications) and the enhanced capabilities thereby produced for business and commerce, but also in its direct effects as a source of new employment in installing, operating and supporting this innovative communication medium.



5. This announcement was followed by a White Paper in April 1983 but, unfortunately, the pace began to slow and the initial euphoria surrounding this exciting new field began to evaporate. The General Election of June 1983 interrupted the progress of the Telecommunications Bill which was delayed until April 84. This in turn delayed the licensing of the eleven pilot cable franchises which were announced towards the end of 1983. The promised Cable Authority did not materialize until a year later.

6. By this time, confidence in the industry had ebbed considerably and several companies had withdrawn or reduced their commitment to cable. The legislative delays, difficulties over the terms of the franchises and licences (particularly the telecommunications licence) and, of course, the removal of capital allowances against tax in the March '84 budget, all contributed to the pessimism within the industry. More fundamentally, the Government was generally believed to have lost interest in cable and this had a major influence upon the attitudes of those involved. Last October marked a low point with Plessey-Scientific Atlanta abandoning their switch plans and Visionhire pulling out of the business, but Robert Maxwell showed his confidence in cable in the same month by acquiring the Rediffusion cable interests from B.E.T. albeit at a very attractive price.

7. In the light of concerns about lost momentum and the widespread uncertainty in the cable industry about the future, ITAP have collected evidence from those currently involved in cable in order to form a snapshot of the state of the industry and to identify areas where action might be taken by Government to improve the situation. It was originally intended that this examination of cable would be carried out within a wider study of the strategic role of Government in IT as a whole, but it quickly became apparent that the problems facing cable require urgent action and this report has therefore been produced separately. It has drawn widely on written evidence from individuals and organisations inside and outside of the cable industry and, although the short timescale over which it has been written means that it cannot pretend to be an exhaustive analysis, we feel it encompasses much of what is currently wrong with cable and where corrective measures could help to set things right.



CHANGES IN THE ENVIRONMENT FOR CABLE

8. The major problem which the cable industry faces is a loss of confidence in its viability. This attitude is now widespread and particularly affects potential investors in existing and new franchises. Since a new industry like cable has no track record with which to attract backers, the mood of scepticism which has grown up is a formidable obstacle to success. This is especially true for cable where substantial sums are required in the early stages of installation of a network. The Cable Authority have just completed a survey of organisations thought to have an interest in acquiring one of the next tranche of cable franchises. The results show that only a few feel able to proceed in the present financial climate and that most of these have not yet actually obtained the necessary backing.

9. This state of affairs can be attributed partially to the downturn in enthusiasm which often accompanies actual implementation of a new venture of this kind, but the current mood cannot be explained entirely in these terms. The reality of the financial environment for cable ventures was not always sufficiently appreciated by those who originally sought a role in the business. Some thought that cable would prove to be an easy route to big money, but the reality is that cable investments are like many other large scale projects and will only show a return in the longer term. The capital allowances issue, although significant, is only one aspect of this. Even before the last budget, the timescales for payback on the huge early investments in cable stretched farther than many investors liked. The peak financial commitments typically occur around the third year and a positive cash flow would, in any event, not have been achieved until year six or seven. This has now been delayed by several more years and, although thereafter money starts to roll in, it is often not soon enough to attract the initial support required.

10. Another factor has been the slow progress in reaching agreement on licences and establishing a Cable Authority, which has lessened confidence and generated uncertainty where it did not actually impede progress. Basing the Telecommunications Licence on the British Telecom licence delayed its availability and extended the period required for negotiation with the cable operators. There have also been difficulties over licence terms. The length of the payback period makes the 15-year licence of marginal interest to cable



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operators while the technical requirements to qualify for the full 23-year licence compound the financial difficulties if expensive switching equipment has to be installed immediately. The Department of Trade and Industry recognises this problem and is attempting to ease the situation by allowing a franchise holder seeking a 23-year licence to establish a cable system initially without the capabilities for interactive services, and then to upgrade the system to the full technical standard within seven years in order to obtain the longer licence.

11. Tens of millions of pounds have already been invested in cable (£50 million in new programme services alone), but the reality is that only a few thousand homes have yet been newly cabled. Indeed, in terms of overall numbers, there are fewer customers connected to cable systems now than there were in the mid-70's. The slow progress of cable compared with earlier hopes for substantially-greater penetration by this time has further reduced confidence amongst actual and potential participants.

12. DBS has also been subject to delays and its relationship with cable has been the source of continuing dispute. Some regard one or other as the natural delivery system for particular services and foresee fierce competition for an audience. The first ITAP cable report expected a DBS service to start in 1986 and envisaged that cable would provide a distribution system for satellite broadcast entertainment and would enlarge the available audience. Despite the delays, this broad picture of DBS and cable as complementary technologies remains valid. We expect each to find a place in the provision of non-interactive services but feel that the increased potential of cable for interactive operation will eventually be of great significance as demand for these services develops.

13. The current level of interest shown by consumers towards interactive services on cable is, however, very low and the cost of providing these services very high. It is early days, however, and the growth of demand for new entertainment services (now with over 100,000 customers) points the way for the interactive field. We believe that a significant market for such services will develop and, as discussed in our second published report "Making a Business of Information", that this market will be of increasing importance to the economy. It is therefore necessary to recognise the short-term problems associated with the provision of interactive, non-entertainment services but not to preclude



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longer term opportunities by allowing cable systems to be installed without some potential for them to be eventually upgraded to full interactivity when required.

14. The lack of clear evidence concerning the eventual market for interactive services is an example of the uncertainties associated with marketing cable services generally. There have been wide disparities in approach and level of success amongst the pilot franchise cable operators, and an understanding of the special characteristics of the cable market and of the techniques best suited to attract customers in it has been slow to emerge. This remains an area of uncertainty in the cable business and contributes to the nervousness of those who might become involved. Despite this, it is clear that hopes for the eventual market (particularly for interactive and telecommunications services) is a major factor in the continued involvement of some cable operators in what they otherwise perceive as a very high risk venture.



THE WAY FORWARD

15. It is clear that the present environment for cable ventures is such that finance is extremely difficult to obtain. Many investors are unwilling to provide the large amounts of capital required and it is mainly organisations like BT, with huge cash stocks and a culture accustomed to investment for long-term return, which are making much of the running. It is therefore necessary to consider what changes need to be made in order to restore confidence in cable and to ensure that cable ventures can be viable.

16. Much of the pessimism about cable is the result of uncertainties - uncertainties about the licences, the role of the Cable Authority, the market for entertainment and non-entertainment services and, particularly, the attitude of Government. The initial "green light to the cabling of Britain" is no longer seen to burn so bright. The removal of capital tax allowances, which we have already mentioned, was influential here. To some, the impression given by the change was that the Government's commitment to the cable industry, as expressed by the Department of Trade and Industry, was not shared by Chancellor of the Exchequer and this undoubtedly resulted in a loss of business confidence. A clear reaffirmation of Government commitment to cable systems is an essential first step in restoring that confidence and regaining lost momentum.

Recommendation 1 : The Government should firmly restate its support for cabling Britain and its confidence in the future of cable systems as part of the national infrastructure.

17. Words without actions will not be sufficient, however, and it is necessary to look at ways in which the financial and other problems of the industry can be alleviated. The financial difficulties are mainly related to cash flow rather than operating profits, which in later years are likely to be very substantial. Some cable operators indicate that they will generate an operating profit after depreciation, but before interest repayments, in the first year. It is the scale of these interest repayments, due to the size of the front-end investment necessary, which causes the problem. We will look at the detail if



this under headings:

- Reducing Costs
- Deferring Expenses
- Increasing Revenues
- Providing Funds
- Boosting Confidence

#### Reducing Costs

18. It has been suggested in some quarters that the technical standards intended to promote the development of interactive non-entertainment services should be relaxed in order to reduce the cost of cable systems. We believe this is not a sensible option for several reasons.

a. The major part of the costs lie elsewhere than in the support of interactive services. Estimates vary, but the cost of installing the cable itself constitutes around two-thirds of the total system cost. The savings possible in the remaining areas have only marginal effects.

b. Indeed, when all costs (including operational costs) are taken into account, relaxing the technical standards may not produce an overall saving. For example, the costs associated with connecting and disconnecting customers, and with changing the services they receive, can be much higher with "low-tech" cable systems, due to higher staff costs associated with manual rather than automatic alterations. In many instances with a simple cable system, a serviceman may have to visit a customer's home to carry out alterations whereas with a more sophisticated system, the changes can be directed remotely through a computer terminal. Such continuing operational costs could more than nullify initial savings. In addition, when multiple connections to a customer's home are considered (to serve more than one TV, VCRs, etc) the more advanced switched systems can be cheaper even in installation terms.

c. Restricting the range of services which can be provided will limit the revenues available to cable operators as the market for interactive services develops. It is also undesirable that the potential benefits of



interactivity are not made available to the consumer.

19. We conclude that there is not a case for an overall reduction in technical standards, but recognise that there may well be benefits in minimising the initial costs of cable systems, providing that future flexibility is not thereby overly constrained. We consider that it is acceptable to allow cable systems to develop in this incremental fashion, providing that the initial topology of the network is suitable for eventual conversion to interactive operation and that the quality of cable, ducts, equipment housings, access ports, and so on, is such that the system can meet the eventual performance requirements.

20. A more fruitful area for cost reductions becomes apparent on closer inspection of the cable network itself. Much has been made of the potential of cable systems as an element of national infrastructure. We strongly support this view, especially in regard of telecommunications services, but the costs breakdown of cable systems which we have seen makes it apparent that the cable itself is only a small part (around 20%) of the costs involved in installing the physical cable network, and is even less when customers' equipment is taken into account. Apart from switching equipment, etc, the ducting and other pathways by which cable connects to individual homes and business premises, and the expense involved in installing these pathways, therefore constitute almost all of the costs in the system. It is these components of a cable network which truly represent the infrastructure aspect of cable systems.

21. It is consequently apparent that major advantages lie with organisations which already have access to such pathways. In particular, BT is able to employ the ducts which exist for telephone cables to accommodate wideband cable and has even in some instances replaced overhead wiring from telegraph poles to individual homes with composite wiring containing a wideband coaxial core and a telephone pair. The cost benefits conferred by this arrangement are substantial. Other cable providers will face significantly higher costs and alternatives which they develop to reduce these costs, such as running suitably armoured cables through sewers, are unlikely to redress the imbalance.

22. We therefore consider that the central importance of ducts and other pathways should be recognised and that steps should be taken to ensure that cable providers can face broadly-similar costs in this area. Although such



pathways exist for a variety of services and public utilities (such as electricity), it is those intended for telephony which are most suited for use by cable, since difficulties over interference, shock hazards, etc are minimised. We see four main options -

- a. Ensure that BT (and, where appropriate, Mercury) make available on reasonable terms cable within ducts, etc, to carry cable services. We consider that this option does not go far enough in providing access to the ducts and other pathways themselves, since the cables would not be the property of the cable company.
- b. Ensure that BT (and, where appropriate, Mercury) make available on reasonable terms space within ducts, etc, for the installation of cables belonging to other cable providers. We recognise the difficulties inherent in this option, but consider it to be attractive.
- c. Place BT and Mercury on the same basis as other cable providers by making the ducts, etc, the responsibility of another party (Cable Authority, OFTEL). We consider that this option is impractical and overly bureaucratic.
- d. Regard BT as having a natural monopoly of the ducts, etc, accept that the economics make competition by other cable providers infeasible in the longer term and allow BT to act as cable provider for all cable networks. We do not consider that this option is acceptable, since it eliminates the competitive element from cable provision and reinforces BT's control.

23. We consider the second option to be the most acceptable. BT (and Mercury) should lease duct space to other local cable providers. Where ducts are full, new ducts should be provided or existing wiring replaced or rearranged to make room. If necessary, installation and maintenance can be carried out by BT/Mercury staff to avoid wrangles over the effect on their own cabling, but the ownership must clearly lie with the cable companies. Overhead wiring should also be replaced with composite cables (as described in paragraph 21) to allow cable providers cheaper access to homes and other premises. There are clear potential legal difficulties in this approach, but the cost advantage enjoyed by BT in particular because of its marginal costs in employing telephone ducts, etc, will otherwise mean that no other cable provider is able to compete in any



area where BT chooses to provide cable. The aim must be to eliminate this cost advantage and allow all cable providers, including BT (and eventually Mercury), to compete fairly. We can identify a number of approaches to achieving such an arrangement. These, and any others which may emerge, should be examined to find a practical way to achieve this aim.

- The Director-General OFTEL might use his powers under the BT and Mercury licences, if these are adequate and relevant, to require these organisations to allow cable providers access on reasonable terms to ducts, etc. This is a desirable approach but, we understand, may not be feasible. Nevertheless, it should be explored.
- The granting of future licences to BT and Mercury to act as cable providers might be made conditional on their voluntarily agreeing to enter into an arrangement such as has been described.
- The Secretary of State for Trade and Industry might indicate to BT and Mercury that a reference to the Monopolies and Mergers Commission would be made, or might take direct action under the Competition Act himself, over the exclusion of cable providers from these pathways, on the grounds that this was anti-competitive and against the public interest.
- As a last resort, new legislation might be introduced to require BT and Mercury to allow access to cable providers.

Recommendation 2 : All necessary legal steps should be taken to ensure that BT and Mercury allow all cable providers access on reasonable and equitable terms to cable ducts, overhead wiring from poles, etc. If the powers available to the Director-General OFTEL under the BT and Mercury licences are not adequate to achieve this then other options, such as those listed above, should be explored.

#### Deferring Expenses

24. There is some evidence that much of the cost in cable networks depends linearly on the number of houses passed (the suggested figure of £200 to £300 per home passed given in the first ITAP cable report seems to be borne out in



practice). As a consequence, there may be opportunities to encourage cable development by allowing small networks to be installed initially and then, as the market develops, letting these grow to more conventional sizes. This will reduce the scale of investment required in the early stages of a cable venture, smooth the investment profile and allow additional capital to be attracted after initial results can be demonstrated.

25. We therefore consider that there is a need for a flexible attitude to the development of a cable franchise. The cable company should be allowed to grow the network gradually, possibly from several smaller networks within the franchise area, and to establish the appropriate mix of consumer interests within the audience to allow the various cable services to be provided economically. The size of a franchise area, or the area potentially available to a franchise holder, should be large enough to allow this audience mix to be achieved and this may well imply areas much larger than those allocated for the pilot franchises.

26. There is a need in this approach to strike the right balance between minimising the initial costs and ensuring that a full cable network providing a range of services to a natural community eventually develops. In the process, the interests of consumers not initially cabled must be recognised and care taken that desirable areas are not allowed to be "cherry picked" without any intention of further development.

Recommendation 3 : Cable franchises should be allowed to develop gradually within constraints which avoid lucrative areas being cabled to the exclusion of the remainder of a community. This applies both within the typical cable franchise area and, where possible without conflict with consumer interests, beyond the boundary of such an area.

#### Increasing Revenues

27. The development of entertainment services on cable systems depends heavily on the quality of the programme material which is made available. Good and plentiful programming is expensive and the small audiences available during these early days of cable restricts the money which can be allocated for this



purpose. Programme providers have already made substantial investments in advance of the market, but need to realise a larger audience if they are to recover their costs and maintain their commitment. In order to assist them, and at the same time to develop public interest in the entertainment services (which, as we noted in our first report, are the basis on which cable systems must build), we would encourage intermediate technologies which can provide a bridge to full cable systems. In particular, Mast Antenna TV (MATV) systems should be allowed to relay the programming material now available over cable systems in order to enlarge the potential audience and increase the revenues available to the cable industry, while making more of the public aware of the possible benefits of cable systems.

28. Where MATV installations already exist, serving either a single building or an area linked with cable in some way, licences should be granted for the use of dish antennae to receive the satellite transmissions now used by cable networks, and thus extend the range of programming available. New MATV installations should also be encouraged across the country. These limited systems should be regarded as the nuclei around which cable networks can grow. We recognise that there may be problems when the area concerned is eventually cabled, in balancing the interests of the MATV operator and the cable company, and consider that the Cable Authority should have responsibility for arranging that the MATV installation is satisfactorily connected to the cable network or is replaced by it when the need arises.

29. For both existing and new MATV installations the aim should be to encourage the development of real cable systems. There is an obvious danger that these limited installations might be constructed or extended in a way which precludes their economic extension to one-way, and eventually two-way, cable networks. The requirements for topology and quality noted in paragraph 19 should therefore apply here also, at least where any substantial new system is concerned. It is also important that the existence of MATV systems should not impede the spread of cable networks. The licences granted for the reception of the new services should therefore be only for a short period, say five years, and renewal should only apply in the absence of a cable system to which the MATV system can be satisfactorily connected or by which it can be replaced. When such a cable network is introduced, the Cable Authority should be responsible for ensuring that an acceptable settlement is negotiated between the MATV and cable companies.



Recommendation 4 : Licences should be granted for the reception of cable programmes from satellites by MATV installations, both new and developed from existing systems, and the period and terms of these licences should encourage the extension of these systems into full cable networks. Particular care should be taken that such limited installations allow an upgrade path without excessive costs. Their eventual integration into cable networks should be the responsibility of the Cable Authority.

#### Providing Funds

30. There are good prospects for the employment opportunities created by cable systems. Significant numbers of jobs are associated with the manufacture of the cable and associated materials and, particularly, with the installation of the systems - around 15,000 jobs over 4 or 5 years to cable half the homes in Britain. The employment created here is clearly not permanent but the staff needed to operate and support cable networks is of the same order - around 1 full-time job for every 1000 homes passed by cable. With more than 20 million homes in the UK, only a fraction of these need be cabled before the employment created by the industry surpasses, for example, the total resulting from the inwards investment of Japanese companies in this country.

31. With such a potential benefit in mind, we believe that Government should provide some positive help for cable companies during their difficult early years. The Business Expansion Scheme provides a mechanism for Government assistance through tax relief on individual investments in new ventures. We consider that this way of encouraging outside investment should be applied to individuals or companies investing in cable ventures and that the investment limit which applies for cable should be compatible with the scale of the total investment required (a limit of around £500,000 is suggested). This possibility should be examined despite the existing arrangements for consortium tax relief which can apply to cable ventures, since it would be aimed at attracting outside capital in the form of shareholdings. It would also encourage wider investment in cable than is presently the case. Increasing participation beyond the major players at present - BT, Thorn-EMI and Robert Maxwell - would be desirable in improving competition and encouraging



entrepreneurism. To avoid abuse, the existing provisions of the BES, such as a time limit on withdrawals, should apply and the Cable Authority should have responsibility for deciding which cable companies qualify for this kind of support.

32. Another possibility would be to encourage householders to pay for part or all of the cost of cabling as a home improvement. The Building Societies appear sympathetic to adding home improvement costs to mortgages and Government might consider whether the cost of cabling a house should qualify for a home improvement grant. The Government could also assist cable companies through a loan guarantee scheme, either for cable ventures as a whole or to encourage particular aspects such as the use of the more speculative techniques for cable laying. This would again encourage wider participation in the business.

33. We regard these and other schemes to bring the costs of cabling within existing arrangements for assistance from DTI and other Departments, as worthy of active consideration by Government, in order to mitigate the high initial investments required of prospective cable companies which impede the spread of cable systems and the services which they can offer.

Recommendation 5 : Government should bring cable ventures within the scope of the Business Expansion Scheme, under the supervision of the Cable Authority, as described and should consider whether other suitable forms of assistance can be made available.

#### Boosting Confidence

34. As noted in paragraph 8, cable suffers currently from a crisis of confidence. It will be necessary to demonstrate that cable networks, especially those dependent on newly-developed and untried technology, can be viable in order to restore confidence amongst investors. We therefore consider that the Government should provide selective financial assistance to a small number of cable ventures willing to act as guinea-pigs in demonstrating advanced technology within their cable systems. Such demonstrators will break the closed loop which currently exists, where customers do not want interactive services



because they are not aware of what they can do and cable operators cannot justify providing these services in the absence of consumer demand. The support would concentrate on the application of the technology within cable systems, rather than on its development for which other arrangements already apply. It could follow the Alvey Programme model of 50% Government funding and 50% industry funding and need only apply to a small number of cable systems, each demonstrating a particular approach to, or aspect of, interactivity. In addition, peripheral activities such as small-scale simulations of new services might be supported to allow consumer reactions to be assessed, and to aid the industry in evaluating and meeting real market needs in this new sector.

Recommendation 6 : Government should encourage the development of cable technology by the selective funding of a limited number of demonstrator projects and associated activities.

35. A further opportunity to show Government's interest in cable exists with the proposals to provide IT facilities throughout the Palace of Westminster and the existence of a pilot cable franchise in the Westminster area. We would suggest that close attention is given to the possibility of linking any IT installation (even a pilot project) within the Houses of Parliament with the Westminster cable network. This would allow access via the network to other Government offices and establishments and would demonstrate that Parliament is in the forefront of the user community which will exploit the great potential of cable systems for communication.

Recommendation 7 : Subject to the views of the Houses of Parliament, the proposed Parliamentary IT system should be linked with the Westminster Cable network.

36. The Government's attitude to competition in the industry can have a major influence in improving confidence. We have referred to the need to place all those concerned on a similar footing with respect to cable installation costs and to the desirability of attracting a wider range of investors. In the longer term, cable offers the prospect of both improving the telecommunications



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infrastructure of the UK and placing it firmly on a more competitive basis than is otherwise feasible. The role of BT in cable is therefore of paramount importance. Its current involvement, and its technical and financial strengths, provide it with a potential stranglehold on this new industry. It is clear that in a liberalised market there is only one direction for BT's market share to go and that there is no incentive for BT to operate to the advantage of a technology and an industry which will eventually attack its pre-eminent position in telecommunications. We have already made specific recommendations in areas where we consider that the Government an act to improve the environment in order to encourage competition, but would additionally suggest that this aspect of Government policy towards the cable industry is kept very much in mind throughout the months to come.



CONCLUSION

37. It will take a good deal of effort to restore the high hopes and great expectations which existed for cable in 1983. There is a spirit of realism abroad in the industry, however, and a recognition that the problems which it faces can be successfully overcome if the will is there. We feel that the effort to restore confidence will be worthwhile, because of the important part which cable systems can play in developing technology which will be useful far outside the industry itself, and in establishing a communications infrastructure upon which the nation can build in the future. Action is required of Government to achieve the right environment and some financial assistance in selected areas is necessary because of the formidable early costs which cable companies now face. We have suggested measures intended to expand the options available to cable companies in dealing with these costs and to improve the competitive environment in which these companies operate. In addition, we have examined a variety of other ideas (for example, that there should be a moratorium on the payment of rates for cable connections to homes) which we have not felt were appropriate for inclusion in a brief report of this nature, but this is not to suggest that action should necessarily be limited to the recommendations which we have made.

38. In conclusion, the chief executive of one of the pilot cable franchises has commented to us that cable is not a sickly child in need of permanent help but a healthy toddler requiring assistance in learning to walk unaided. We support this view and hope that the Government will be able to extend a helping hand to cable while it outgrows its current pains.