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DOCUMENT 1-182/81

Report

drawn up on behalf of the Committee on Energy and Research

on the proposal from the Commission of the European Communities to the Council (Doc. 1-512/80) for a Decision adopting a third plan of action (1981-1983) in the field of scientific and technical information and documentation

Rapporteur: Mr Peter BEAZLEY

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English Edition

PE 70.892/fin.

By letter of 16 October 1980 the Council of the European Communities requested the European Parliament to deliver an opinion on the proposal from the Commission of the European Communities to the Council (Doc. 1-512/80) for a decision adopting a third plan of action (1981-83) in the field of scientific and technical information and documentation.

The President of the European Parliament referred this proposal to the Committee on Energy and Research as the Committee responsible, and to the committees on Economic and Monetary Affairs and Budgets for their opinions.

On 25 November 1980 the Committee on Energy and Research appointed Mr Beazley rapporteur.

It considered the report at its meeting of 27 February 1981 and adopted the motion for a resolution by 14 votes to nil, with 1 abstention.

Present: Mr Ippolito, in the chair; Mr Gallagher, Vice-Chairman; Mr Beazley, rapporteur; Mrs Charzat, Mr Fuchs, Mr Linde, Mr Linkohr, Mrs Lizin, Mr Pisani, Mr Rogers, Mr Seligman, Mr Vandenmeulebroucke, Sir Peter Vanneck, Mr Veronesi and Mrs Viehoff.

The opinions of the committees on Economic and Monetary Affairs and on Budgets are attached.

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The Committee on Energy and Research hereby submits to the European Parliament the following Motion for a Resolution, together with Explanatory Statement:

MOTION FOR A RESOLUTION

embodying the opinion of the European Parliament on the proposal from the Commission of the European Communities to the Council for a decision adopting a Third Plan of Action (1981-83) in the field of scientific and technical information and documentation

The European Parliament,

- having regard to the proposal from the Commission of the European Communities to the Council (COM(80) 552 final),
- having been consulted by the Council (Doc.1-512/80),[1]
- having regard to the report of the Committee on Energy and Research and the opinions of the Committee for Economic and Monetary Affairs and the Committee on Budgets (Doc. 1-182/81),
- recognising the immense importance which developments in communications and information processing will have,

- recognising the progress already made on the initiative of the Commission in setting up the Euronet communications network and the Diane system of information databases;

1. Welcomes the proposal to develop the Euronet network to the stage where it may be taken over by national PTTs, and to extend the range of databases offered on the Diane system;
2. Believes that any financial support given by the Community for the Euronet and Diane projects should not become a long-term subsidy;
3. Believes that improvement of the services for users is of great importance for the development of the information market, and that this should be reflected in the balance of expenditure;
4. Underlines that advances in information technology, exemplified by the easy transmission of information and the remotely-accessible databases of Euronet-Diane, raise problems both of copyright and of privacy which urgently require practical solution;

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[1] OJ No. C278 of 28.10.80, p.4

with regard to Euronet

5. Urges that the arrangements for managing Euronet after its eventual handover to national PTTs provides for network tariffs which reflect costs and which are thus independent of the distance involved;

6. Urges that Euronet be extended to Greece at the earliest opportunity and that links between US networks and Euronet be consolidated;

with regard to Diane

7. Supports the continuing extension of the range of databases on offer, placing particular emphasis on those offering statistical, commercial and economic information and on the early availability of Community databases;

8. Recommends that the title be shortened to "Plan of Action for Information and Documentation", thus omitting its out-dated limitation to "scientific and technical" and reflecting the broader range of information available;

9. Believes that the "call-for-proposals" procedure is a usefully flexible method of extending the coverage of Diane, and that such a procedure should be implemented without delay;

10. Calls for a concerted effort to reduce the diversity of technical and commercial procedures for using the system, observing that the multiplicity of host organisations is a hindrance to the development of a strong information industry;

11. Whilst welcoming the success of the Community's initiatives with regard to "on-line" services, recommends that more attention now be given to other aspects of the information market such as a document delivery;

12. Calls for particular attention to be paid to the needs of small and medium-sized enterprises, such as encouraging the setting up of intermediate searching agencies, etc., bearing in mind the regrettable lack of action which has followed widespread reference to the special problems posed by Euronet-Diane for this sector despite the opportunities it also provides;

13. Suggests that, in view of the limited funds available, spending on multilingual aspects should be confined to the development of thesauri, etc., and the provision of unrevised machine translations;

14. Requests the Commission to include the following amendments in its proposal pursuant to Article 149, second paragraph, of the EEC Treaty.

TEXT PROPOSED BY THE COMMISSION OF THE EUROPEAN COMMUNITIES [1]	AMENDED TEXT

Decision adopting Third Plan of Action (1981-83) in the field of scientific and technical information and documentation

Title	Title
Third plan of action (1981-83) in the field of scientific and technical information and documentation	Third plan of action (1981-83) in the field of (three words deleted) information and documentation

Preamble and recitals unchanged

Article 1	Article 1
A third plan of action in the field of scientific, technical and related specialized information and documentation as set out in Annex I is hereby adopted for a period of three years with effect from 1 January 1981. The ceiling for expenditure commitments necessary for the realisation of this plan is estimated at 16.5 million European units of account, the European unit of account being defined by the relevant Financial Regulations. This amount constitutes only an indication.	A third plan of action in the field of (five words deleted) information and documentation as set out in Annex 1 is hereby adopted for a period of three years with effect from 1 January 1981. The ceiling for expenditure commitments necessary for the realisation of this plan is estimated at 16.5 million European units of account, the European unit of account being defined by the relevant Financial Regulations. This amount constitutes only an indication.

Articles 2 and 3 unchanged

Annex I unchanged

[1] For complete text see OJ No. C278 of 28.10.80, p.4

B.

EXPLANATORY STATEMENT

Introduction

1. As its name implies, this proposal concerns continuation of Community action in the field of scientific and technical information and documentation, STID. Following a Council Resolution in 1971 concerning coordination of Member States' activities in STID, a first plan of action ran from 1975-1978, and a second from 1978-1981.

2. A brief description on the subject matter may be appropriate. Information and documentation have now grown so extensively that a seeker of information on a particular topic is no longer faced with the task of assembling what information might exist. Rather, it is a question of finding the relevant parts of the available mass and presenting them in a comprehensible way. Computer technology has been employed to help overcome this problem. Various organizations have set up databases, stores of information on particular subjects and which can be searched quickly using computer techniques. Naturally these are few in number, and are preferably remotely accessible "on-line" by a large number of users. While this can be done over conventional telephone lines, dedicated data transmission networks can handle a greater flow of data, from diverse sources, and are thus cheaper.

3. Although the technology existed, plans for setting up networks were progressing in a fitful fashion until the Euronet project. This stimulated agreement on technical standards and, has also accelerated the setting up of national networks so that most Member States will have these within two-to-three years. In the longer term, as these national networks are interconnected, a separate Euronet may become superfluous.

4. With databases too, the Commission has sought to prompt development of a coherent system with its DIANE project. Many databases have been made available on Euronet with help for the technical conversion measures necessary. The setting-up of new databases has also been supported.

So far around 20 computers are linked to the network, and about 20 are waiting to be so: around 175 databases are on offer. Individual user terminals can be linked to the system. The user's costs comprise his own terminal costs, a subscription, a charge for network use (independent of distance) and a charge for the information supplied. The network charge amounts to about 10% of the total. Over 2000 organisations so far subscribe. The network is capable of transmitting data from sources other than DIANE, of course; such third party traffic may comprise data flows between bases of a large undertaking, for example.

Objectives

5. Various writers have speculated on information science being the basis of a change so wide-ranging in its effect on manufacturing, commerce and the individual as to be a second industrial revolution. It is not necessary to take such a drastic view to recognise the vital importance of progress in this sector for the economic well-being of countries in the Community.

6. The Euronet and DIANE projects have laid the foundations for a European information network. These foundations need reinforcement, and this the 3rd Plan of Action proposes to do. But at the end of the Plan there should be a network covering the Community and an extensive range of databases available via it. At that stage the system should be capable of evolving in response to normal economic pressures; the Commission is to be applauded for wishing to see its direct involvement minimised, having prompted developments the market finds difficulty in undertaking.

7. The Third Plan, the subject of this report, seeks to consolidate previous progress and to:

- turn Euronet into a public network by 1983 (4.0 MEUA of the 16.5 MEUA total).

- accelerate development of high quality services (8.5 MEUA)

- develop user support and marketing (3.0 MEUA)

- investigate new technologies and methodologies (1.0 MEUA)

8. The significance of new information technology is so pervasive that any Plan of Action must choose between many possible objectives: promotion of industrial innovation, reduction of dependence on the USA, help for small and medium-sized enterprises, development of the information industry itself, to name just a few. In essence, the choice is between emphasizing the supply of information on the one hand and stimulating growth in the use of information on the other. Both must be done of course, but - now that a basic system is working - development of the market through removing barriers to use is

probably more important than the balance of expenditure implies.

9. It is true that Member States undertake training and other activities; similarly, there is a tendency forwards fewer - but - larger host organisations administering the databases. Both these factors assist market development. But many barriers to use persist: the lack of a document delivery service, the complex variety of standards and procedures faced by a user, language problems, and the lack of searching agencies to help those lacking the necessary expertise to address the system directly. These problems are more pressing than the need to fill every niche in the range of databases offered.

The individual chapters are discussed below.

Public network

10. The creation of Euronet has successfully prompted uniform network standards. These are being used in the national networks being set up, easing their eventual interconnection. These standards concern packet switching: data are transmitted on the network in "packets" and need to carry information identifying the packet and its destination so as to trigger the correct switching in the network; the concept i analogous to time-sharing of tasks on a single computer.

11. Euronet is run by a consortium of national PTTs (post, telegraph and telephone authorities). The Commission has the right to put recommendations and covers, within defined limits, the operating deficit. This deficit, expected during the build-up phase, will persist in 1981 and perhaps into 1982. The objective to turn Euronet into a public network by 1983, an objective carried over from the Second Plan of Action, means the ending of a Community role and the assumption of full control by the PTTs. This is a measure of the success of Euronet. The funds set aside in Chapter 1 of the proposal cover the Community's contribution to the expected deficit, handover and set up costs.

12. One principle of Euronet tariffs has been their independence of distance. Not only does this reflect the cost structure but also helps develop a single information market. Although this principle will possibly be at risk with the handover to the PTTs (who charge by distance for telephones, although not letters), the latter have agreed to maintain the structure of tariffs for Euronet users for five years after handover. As it is technically difficult to apply different tariffs on the same system, they will probably apply generally. In addition, PTTs will wish to keep tariffs low to stimulate traffic.

13. Three extra links to the current network need to be considered. Firstly an extension to Greece is a priority for obvious reasons, and agreement is within sight. Secondly it has been suggested that Lomé countries should be included on the network. Certainly this would be a real boost to technology transfer. On the other hand, the traffic generated would hardly justify such a dedicated link for a long time to come.

The third possible link is with the United States and perhaps Japan. Certainly many large databases are located in the US. At the moment these are accessible via European terminals of US networks. It appears, however, that some databases are being duplicated and loaded in European computers so as to be available on DIANE via Euronet. In the long run it is clear that public data-transmission networks will straddle the Atlantic and Pacific. The groundwork for this development should be laid now, and experimental links between Euronet and US networks consolidated into an operational service.

Development of high-quality services

14. In addition to getting the network fully established, the Plan aims to improve the DIANE information system which is available via the network. Just as Euronet is managed by a consortium of PTTs, so there is a DIANE management committee involving information suppliers and the Commission; it is not intended that this Community role should end in 1983.

15. With the provisos mentioned below, Europe is not short of databases. The 1979 EUSIDIC survey revealed 609 databanks and 556 databases (in the present report the latter term embraces the former). Of the 609, 224 were produced in Europe and 385 elsewhere. About half the total were available on networks, but this was prior to the advent of Euronet and few of the European databases were available so; the gap was particularly noticeable in the business and economics sector.

16. The situation has undoubtedly improved since 1979, although the business information gap remains: filling it must take priority in setting up new databases. Although the Commission's proposal, formally at least, refers to scientific and technical information, restricting coverage to these areas is no longer justified and appropriate amendments are proposed for the title, etc.

17. Setting up a database is expensive and risky as use is hard to predict. There is clearly a role for the Community in helping operators with these start-up costs; this should not extend into subsidising operations indefinitely. The main criteria for support should be whether the proposal fills a gap in DIANE coverage, and the extent of the need.

18. Many of the early "host" organisations providing databases have been non-private organisations. Certain database projects relating to Community policies or interests will still lend themselves to public rather than private sponsorship. There is scope here for accelerating the linking in Community databases (as recently with CELEX and CHRONOS).

19. Of more interest, however, as the system becomes more commercially oriented is the call for proposals procedure. Proposals - usually to set up databases - which result from a general invitation are scrutinised for those best suited to fill gaps, preferably with scope for multinational cooperation. Support may then take the form of 25% funding, rising sometimes to 49%, of set-up costs. The main thrust in this area must come from market-oriented organisations. In this context the "call for proposals" procedure offers, given the limited amount of Community funding available, a reasonable compromise between market orientation and having a coherent system.

20. It is however on this procedure that two Member States have expressed reservations, at least in the advisory committee, CIDST. It is by no means unusual for such reserves to be entered at this stage. The German delegation was dissatisfied that procedures for awarding contracts were adequate, while the French delegation wanted a small cut (from 8.5 million EUA to 7.5m EUA) but also the holding back of 5 million EUA until the working of the proposals mechanism is clear. The UK sought a 10% cut in the allocation.

21. Member States are now developing their own information policies. It would be unfortunate if this led to clashes of priorities with projects which commonsense suggests should be done at Community level, and to an over-rigid policy structure not able to respond to opportunities as they arise.

22. The call for proposals procedure is deliberately flexible. In a time of rapid change in this field, it is a mistake to overspecify what is sought. Specifying too tightly cuts down the number of proposals and eliminates many that are worthwhile but perhaps not originally envisaged. Your rapporteur thus approves the flexible approach, and sees no purpose to delaying the start of the procedure.

23. The main obstacles to setting-up databases are uncertainty about the market and such matters as copyright, and the financial risk. Loan guarantees or interest-rate subsidies could be used to reduce the risk, as well as, or in place of, the grants envisaged. In this way the Commission might effectively direct effort without necessarily spending large sums, and this form of support should be investigated.

User support and market development

24. The Commission's activities have concentrated on developing "on-line" services. These are undoubtedly important but serve only part of the market for information. This broader context needs to be kept in mind. Provision of copies of articles, etc., included in databases is one aspect, and this is referred to in the proposal. But more generally, risks in setting up databases are much reduced if there is an associated series of paper publications.

25. The DIANE databases are interrogated on-line, and it is expensive to print out the full text of any reference immediately. Hence the need to provide copies (printed and despatched "off-line") and the Commission should study and implement a common system for doing this as soon as possible.

26. Mention has been made already of the desirability of common standards. Whilst this has been achieved at a technical level in the network, it has not been so for the user/DIANE interface. Different databases in DIANE require their users to know different command languages and procedures. A similar problem exists with regard to terms of contracts, methods of payment, etc., which also differ from organisation to organisation. Just as real technical considerations lie behind the differing command languages, so legal and other factors lie behind these organisational differences. It is not seeking harmonisation for harmonisation's sake to aim for some conformity: the fragmentation of the system, with its multiplicity of host organisations is a real hindrance to higher rates of use. Some rationalisation in the number of hosts can be expected, and this should be encouraged.

27. This Parliament has in the past stressed the significance of the information revolution for small and medium-sized enterprises (SMEs) especially. It is disconcerting therefore to read no concrete progress has been made in meeting their needs. Individually they have much to gain from access to a greatly enhanced range of information, but usually cannot justify a terminal or an employee dedicated to, and therefore familiar with, searching out relevant information. One answer may be small central agencies working for SMEs as clients. These exist in the United States and their existence should be encouraged here. The "call for proposals" procedure might specifically invite the setting-up of such agencies. It is certainly time that action followed words.

28. It is vital to keep up pressure for common standards: colour television and defence equipment are just two examples of damage done by developing different systems. One subject where there is a risk of this happening is videotex, i.e. the telephone-accessible information service, using a modified TV set in the home (although it has application to industry too). The service is aimed at the mass market rather than the professional markets for information from DIANE; it is logical that both operational systems should be linked into Euronet DIANE in due course.

29. Lively competition between the videotex systems on offer is to be welcomed, and certainly standards should not be "frozen" too soon in a fast-changing technology. At least minimum interface standards should be agreed so that each system can call up and display properly the other when both are available on Euronet DIANE.

30. It is hardly necessary to remind members of the problems caused by the existence of so many languages in the Community, and the Committee in reporting separately on a proposal for a machine translation system of advanced design. The Commission proposes tackling the problem as it affects DIANE on a rather broad front, by

- setting up thesauri, etc.
- pilot projects to investigate bilingual retrieval and machine translations
- helping translation centres extend activities
- creating a loan fund to assist publishers with translation

At an early stage in tackling the multilingual problem it is obviously useful to explore a number of avenues. But as this is one of seven headings in Chapter 3, making a total claim on 3.0 MEUA (over three years), the dangers of spreading effort too thinly are clear. Your rapporteur's view is that the thesauri and the provision of unrevised translations are the most important.

31. The advent of databases and photocopying has raised serious difficulties for the law on copyright. Much of the material loaded into databases is derived from journals. To what extent does the original author retain copyright in an abstract, and how can copying be policed in an age of photocopiers, are but two of the questions raised. Possible solutions include a general licence fee on database operators, or a levy according to use of a reference. These problems go beyond the confines of the third Plan, but the Commission should contribute to efforts to find a solution.

32. Similarly, the problems posed for confidentiality and privacy by computer storage of information are highlighted when access to databases is so widened. DIANE databases are of course intended for public inspection, but third party traffic on Euronet may include confidential information. This Parliament has called in the past for safeguards to be introduced against accidental or unauthorised access to such information; and while some Member States have done so, others have so far done nothing in spite of widespread concern. The need is now more urgent than ever.

New technologies and methodologies

33. One million EUA is set aside for keeping abreast of developments in this fast-moving technology. When one starts to consider the likely, never mind possible, advances in components, techniques, systems and applications the field to be surveyed is a large and exciting one. The Commission intends to hold workshops so as to exchange and mobilise expertise, with follow-up studies as necessary. In addition, long-term strategies will be studied for making the most of information transfer technologies. This element is of little initial significance in the programme, but it will certainly grow as, for example, fibre optics become a commercial reality.

Conclusions

34. Your rapporteur fully supports the aim of the plan of action, namely to get Euronet-Diane fully operational, meaning in turn that Euronet becomes a public network and gaps in the Diane coverage are filled. But it is also vital to facilitate access to the information already available. This implies that more money be allocated to user support and market development, and less to provision of high level services.

35. The Community has a role in fostering both Euronet and supporting the setting-up of databases, but in each case support should be strictly for the set-up phase and not turn into a long-term subsidy. Loan guarantees and interest-rate subsidies should be offered as additional possible forms of support.

36. The work achieved in setting up Euronet is encouraging, and it is only to be hoped that Member States will build on this in setting up their own data transmission networks.

37. As these national networks are set up, so the Community's role as stimulus is naturally overtaken and national PTTs assume full responsibility for the international links of Euronet. The objectives of protecting existing users and promoting third-party traffic, envisaged as part of this long-term consolidation, are highly desirable. Distance-independent tariffs ought to be maintained: not only do these reflect the cost structure, but also stimulate traffic.

38. With regard to the databases being offered on the Diane system, continuing efforts to expand the range of topics covered are necessary. The Community has databases which really ought to be available, as should a greater range of commercial and economic information. Some progress has been made in this, and your rapporteur fully endorses the view of the Economic and Monetary Affairs Committee that the reference in the title of the Plan to "scientific and technical" information is outdated, and should be dropped; it gives much too narrow an idea of what Euronet-Diane can and should do.

39. The main responsibility to developing new databases and services must lie with private enterprise. The call-for-proposals procedure is a useful approach. Although the procedure should be fair and efficient, it would be a mistake to administer it too rigidly as this would exclude worthwhile projects. It would be unfortunate if national policies, desirable in themselves, meant inflexibility in reacting to initiatives best undertaken at Community level.

40. The information market is wider than that covered by "on-line" services alone, and attention should be given to other aspects of it. Development of a service supplying copies of documents referred to in databases is urgently necessary. Similarly, the promotion of printed publications alongside on-line services will reduce the risks of setting-up databases.

41. It is highly desirable that barriers to use are removed, through a simplification and consolidation of the user/system interface, covering procedures, computer languages, document delivery, contract terms, etc. A reduction in the number of hosts is highly desirable if the industry is to thrive.

42. Euronet-Diane is very important for small and medium-sized enterprises. Concern that they should make the best use of it, stressed by this Parliament and the second Plan, should be translated into action. This means effort to set up intermediate searching agencies (there is scope here for the call-for-proposals procedure, perhaps), and to simplify and standardise the user/system interface.

43. Getting the new system fully operational will also need substantial user support and the effective development of services such as document delivery. Similarly, developments in technology need to be kept under constant review in a field as fast-changing as this one. Two general principles have to be stressed:

(a) that technically-common standards and uniform procedures should be employed wherever possible. In this context compatibility of the emerging systems of videotex is highly desirable,

(b) that despite the need to cover a lot of topics and possibilities with limited funds, money should not be scattered in such small doses as to be ineffective; there is a real danger of this in the proposals concerning multilingual aspects of Diane.

44. As to geographical coverage of Euronet, extension to Greece and the United States networks (and eventually Lomé countries) is necessary and desirable, and the Commission should be making the necessary technical and administrative arrangements.

45. Problems of copyright and privacy are raised by new information technologies. While it is not the function of the Plan itself to solve these, the Commission is urged to bring forward proposals which could alleviate these problems on a Community basis.