

COMMISSION OF THE EUROPEAN COMMUNITIES

COM(82) 356 final

Brussels, 7 July 1982

Proposal for a
COUNCIL DECISION

amending Council Decision 79/783/EEC of 11 September 1979 adopting a multi-annual programme (1979 to 1983) in the field of data-processing

(submitted to the Council by the Commission)

COM(82) 356 final

INTRODUCTION

Because of the vital strategic importance to Europe of the information technologies, the Commission has for some years been exploring activities that could usefully and justifiably be carried out at Community level in order to secure a sound position for Community industry in a field of such importance for its future. A number of proposals on the information technologies have already been sent to the Council and others are in preparation. These proposals, which for operational reasons are being sent to the Council one after the other, nevertheless form part of a consistent whole that has gradually been built up and is designed to cover all the aspects of this sector which has to be tackled at Community level.

The various projects already submitted or in preparation come at three complementary levels, with logical links between them :

Research and Development level, at the pre-competition stage and looking to the long term. This is a fundamental area in which individual efforts by national industries appear to be quite inadequate and where Community cooperation is essential because of the scale of the investment required. The programme ESPRIT, on which a communication has recently been sent to the Council, comes at this level, as does the programme on micro-electronics (1) and some of the projects being conducted at the Joint Research Centre.

(1) Council Regulation (EEC) N° 3744/81 of 7 December 1981

Level of the application of a new technology : this applies to projects designed to put into practical application and launch on the market a technology perfected by research and development. It is a stage in the innovation process at which the Americans and Japanese are more efficient and which is vital because the use of technological capital must lead to the placing on the market of competitive products that are attractive to the user. The Community is well placed to undertake promotion projects for the Community market as a whole whereas national projects of the same type might well only open up a national market for the new products. The INSIS and CADDIA projects come in this category as do most of the activities under the responsibility of the Directorate-General for Information and Innovation.

Level of the environment of the sector. To ensure that the processes in the first two categories take place under optimum conditions and that the market can develop an appropriate structure to receive the new products, some horizontal activities are necessary, such as those advocated in the recommendations on telecommunications (1). Attention should also be drawn to the series of measures (2) in the field of employment, training, industrial relations and working conditions which are aimed at encouraging a social climate which is favourable to the introduction of the new information technologies.

The multiannual data processing programme involves activities taking place at each of the three levels described above :

The first part of the programme deals mainly with projects at the "environment" level (standardization, public procurement, general studies to identify and solve problems in the sector), but also contains a few research and development projects. The whole of the second part of the programme (promotion measures under the support mechanism) comes at the second level, the application of new technologies.

The explanatory memorandum which follows, concerns a proposal for an amendment to the Council Decision on this second part.

(1) COM(80) 422 final of 1.9.1980

(2) COM(81) 578 final of 12.10.1981

COM(82) 296 final of 26.5.1982

EXPLANATORY MEMORANDUM

1. Implementation of the programme between 11 September 1979 and 31.5.1982 : conditions and results

The Council Decision on the multiannual data-processing programme was taken on 11 September 1979¹. The programme had three ambitious objectives : to create an environment favourable to the development of European data processing by a set of measures (co-ordination of procurement policies, development of standardization, research) in part 1 of the programme; creation of new markets and support for users and the European data-processing industry by a support mechanism for the development of applications and software (part 2); and the co-ordination of national data-processing programmes.

The funds proposed for this purpose were, however, limited at that stage. The Council Decision involved a level of expenditure of 10 million ECU for the first part of the programme and 15 million ECU for the second. What was more, it did not settle the question of management staff for the programme, the cost of which had been deducted from the amount proposed by the Commission for the programme. Two statements on staff were written into the Council minutes in connection with Article 2 of the Decision².

In the first, the Commission stated that 39 budget posts were needed for management of the programme. In the second, the Council acknowledged the need for additional staff and agreed to take the necessary measures under the normal budget procedure.

¹ See OJ L 231 of 13.9.1979
² See Council document ECO 61 N° 8713/79

Of the 39 posts initially requested, the following have been allocated :

- 7 posts under the 1980 budget adopted in June 1980;
- 16 posts under the 1981 budget (the Commission had entered in this budget a request for 25 posts for the multiannual programme).

The detailed results of the implementation of the programme from 11 September 1979 to 31 May 1982 are given in a separate report¹. However, the delay in responding to the Commission's requests for management staff and the failure to meet them fully have had the following results :

- the first part of the programme, calling for the most manpower, has been considerably delayed : work on standards has been going on at a slower pace, a late start was made on R-D and studies, while the work on public procurement has not yet begun;
- for the second part (support mechanism for applications), a great effort has been made to ensure that work continues at a more or less normal pace despite the unfavourable conditions. This has entailed using some of the programme's annual appropriations for the management of selected projects, even though the team has been reinforced as much as possible by the Commission's own staff.

This second part of the programme elicited numerous proposals from industry in response to the two calls published in the press under this scheme.

¹ See document "Report on the status of Community programmes at 31 May 1982" (III/865/82-EN)

The first call for proposals (23 February 1980) resulted in 64 proposals, 14 of which were selected, but as one of the selected applicants was unable to continue, 13 projects have been launched under contracts totalling 3.26 million ECU.

The second call for proposals (7 March 1981) produced 84 proposals, to 19 of which, totalling 2.319.000 ECU, the Commission has already decided to grant aid. Three other proposals totalling 499.000 ECU have been selected by the Commission, but a final decision by the procedure in Article 8 of the Regulation¹ has not yet been taken.

Projects stemming from the first two programmes of priority activities² and totalling 8.4 million ECU have also been launched under the second part of the programme.

Thanks to the support mechanism, it has been possible to identify and even inspire some projects that are in line with the aims laid down for the programme, which are set out below :

- Promotion of standardization and portability
- Promotion of a common data-processing market, in particular by cooperation between users
- Projects reducing public expenditure by pooling public sector needs for applications
- Promotion of the data-processing industry by cooperation within the Community
- Improvement of the competitiveness and export strength of the Community industry

¹ Council Regulation (EEC) n° 1996/79, see OJ n° L231 of 13.9.1979
² Council Decisions N° 76/632/EEC of 22 July 1976 and N° 77/615/EEC of 27 September 1977.

All these aims have been well served by the implementation of the support mechanism. The replies to the first two calls for proposals, which were of a general nature, showed that there were four aspects of particular interest :

- The first relates to transnational projects involving users all over Europe, meeting a need common to the whole Community and, where the users are public bodies, helping to attain the objective concerning public procurement. The programme provides support for projects such as those concerning Chambers of Commerce, shipping companies, consumer associations or the most advanced of them which concerns large European ports. This last is a particularly good example for several reasons : its implementation is helping to solve major problems in the management of European ports, especially as regards dangerous cargoes, it could not have been carried out other than in the Community framework, it has given the European software industry an opportunity to develop a system new to the world and it has promoted coordinated public procurement of a product in which communications standards are of great importance.

- The second is standardization and portability. These projects are helping to create a European software industry in an open market environment. The most significant examples are the projects launched in connection with the new language ADA; this will probably become a world standard and the development of European capacity is vital for the future. These contracts, which have swallowed up 7 million ECU of the 15 million available for the programme, together make up a strategic whole in which the major contracts designed to give Europe the basic tools are backed up by more limited but extremely valuable projects proposed by industry. The Community action has created a technological base allowing European manufacturers to play a successful part in the world competition in the field of ADA.

- The third aspect is remote data processing. Most of the transnational projects, such as that on ports, make a contribution to this. However, other activities, such as the projects on the updating of videotex systems, on a terminal for open systems, and others still under examination, also come under this heading.

- The fourth aspect, cooperation between industrial firms in several Community countries, or between firms and universities or users, is found in all the projects but is particularly to the fore in some of them. Under the support mechanism it has been possible to conclude some 40 cooperation agreements, but it should also be realized that the mere fact of preparing a common proposal, even if it is not selected, involves spontaneous cooperation. Some, such as the agreement between Siemens and CII-Honeywell Bull on ADA, are of strategic importance.

All the projects launched, briefly outlined here and described in greater detail in the status report¹, show that support for applications at Community level has a real role to play : thanks to the support mechanism, it has been possible to identify and even inspire some extremely interesting projects and to launch them efficiently. They could not have been carried out, or at least not as rapidly, without this scheme.

Since the total resources committed amount to only about 5 % of the funding for national programmes in Europe over the same period, and are also modest compared with the American or Japanese programmes, it is obvious that, with the single exception of the ADA programmes with their great strategic importance, the limited cash allocated to the support scheme has only had an impact in limited fields; nevertheless the effects are valuable in those areas and it is worth extending them to objectives of a more strategic nature.

¹. See "Report on the status of Community programmes at 31 May 1982" (III/865/82-EN)

As far as the budget is concerned, the situation was as follows at the end of the first quarter of 1982 :

- For the first part of the programme (appropriation 10 million ECU), 3.4 million ECU have been committed since the start of the programme and of that amount 2 million ECU have been paid out.
- For the second part of the programme (appropriation 15 million ECU), 15 million ECU has been committed since the start of the programme, counting the amounts set aside for projects under the second call for proposals and two other small projects to be launched by the Commission, and of that amount 8.030.000 ECU has been paid out.
- In addition to that expenditure, 2.217.000 ECU has been committed and paid out in management costs.

2. Future prospects for the programme

- The Council Decision provides for the programme to extend from 11 September 1979 to 11 September 1983. In view of the delay in starting the programme, it is logical to accept that, as far as commitments are concerned, it will terminate at the end of the 1983 budget year.
- As regards staff, the recruitment procedures for the 1981 temporary posts meant that staff were gradually made available as from September 1981; since that date the first part of the programme has gone ahead at a more or less normal pace, although all the needs for management staff have not been met. For the second part of the programme, the management staff has been increased. Since insufficient temporary posts were allocated for the management staff, some of them still have to be paid from the programme's annual budget. This team can continue to manage the support scheme until the end of the programme.

With regard to modifications to the programme content or the presentation of a new programme, two possibilities can be examined :

- The opportunity offered by Article 4 of the Council Decision.

Under the present circumstances, it would be premature to propose modifications to the first part of the programme. In view of the interest aroused by the support mechanism in industry, the high standard of the proposals received and the suitability of the criteria and procedures used, it does not seem advisable to modify the arrangements for this scheme either.

- The possibility resulting from the statement on Article 1 of the Council Decision, written into the minutes¹.

On the basis of this statement, and in view of the situation in the sector, the Commission intends to present to the Council proposals for new projects, possibly differing in nature from those in the multiannual programme, and calling for additional budget funds. In the light of the experience gained in managing the first part of the programme, it will present to the Council at the end of 1982 a proposal on the extension of activities under this first part, especially in the field of standardization. However, as the second part of the programme has been so successful and the funds allocated to it have been used up, the Commission intends to propose immediately that the amount for guidance be increased and its duration extended and to suggest some guidelines for the selection of projects to receive support.

3. Selection of projects to receive support

As the Regulation allows, the Commission could, in order to extend the second part of the programme, either issue calls for industrial

¹ See Council document ECO 61 N° 8713/79

proposals on projects not identified in advance, possibly concentrating on fields to be decided in consultation with the Advisory Committee for the programme, or make calls for proposals on specific projects. It has chosen the second course, although with a degree of flexibility. In talks with potential applicants who have interesting ideas for projects that they were unable to submit in response to the first two calls for proposals, a number of projects meeting the criteria for the programme have been identified. The project leaders who have taken part in the management of the support mechanism have also proposed such projects. However, it was necessary to draw up a short list of the potential projects.

The four criteria set out earlier, which were the outcome of management experience over the previous two years, were applied to the potential projects. However, it was found that two other considerations could be taken into account in order to derive maximum benefit from the Community support mechanism :

- a) the scope of the projects selected should be sufficient to ensure that they have a real strategic impact, such as the ADA projects (6.4 million ECU in two contracts) or the "ports" project (1.114.000 ECU). This ensures that maximum benefit is obtained from the Community funds and avoids spreading them too thinly over a large number of small projects or feasibility studies, which had been the case in the second call for proposals, as the Advisory Committee had emphasized;
- b) the fields chosen for the projects should be of particular importance for the development of the information technologies, i.e. fields in which encouragement for the application and introduction to the market of new technologies was most desirable. In addition, they should be suitable for Community-wide activities. The two fields finally adopted were :

- Projects intended to facilitate and spread the use of the ADA programming language
- Cross-frontier information systems using distributed data-base techniques.

Another field of interest is the use of microprocessors and sensors in many sectors as this is vital to improve competitiveness or to solve certain problems in those sectors. However, in view of the great diversity of such applications, the Commission feels it is too early to propose individual projects before an exploratory study has been carried out.

The Annex to this document outlines each of the two fields mentioned above, the problems which the Community action is intended to solve and a number of application projects that should help to find practical solutions to existing difficulties, thus enabling the technologies concerned to be put on the market. These projects are given by way of example as together they cover all the problems still outstanding in the fields under consideration; however, after the Council has approved the programme, if other projects were to appear more suitable to attain the technical aims without exceeding the maximum budget, they could be selected to replace some of the projects proposed here. The projects selected at this stage have a duration of around three years and would be carried out by means of a call for proposals to Community industry. Their general features are as follows :

A) ADA

Four projects requiring a Community contribution of 19.5 million ECU.

Projects A1 to A3 are designed to develop in Europe basic know-how and tools to facilitate the use of ADA while benefiting from all the advantages of this new language. Project A4 is a pilot application of the language.

B) Cross-frontier information systems using distributed data base techniques

Five projects requiring a Community contribution of 19.5 million ECU. These are application projects concerning distributed data bases used in various sectors, apart from the B5 project which is of a specific nature : it covers a number of R-D activities for these data banks to be carried out by three institutes in cooperation.

C) Use of microprocessors and sensors

A sum of one million ECU is requested for exploratory studies in this field.

4. Total amount and duration of the programme

Although taken together the projects presented under A and B appear to meet the necessary conditions for attainment of the objectives of the programme, the Commission would like, as mentioned above, to reserve the right, in making the final selection of projects and after consulting the Advisory Committee for the Management and Coordination of Data-Processing Programmes, to introduce changes which, without exceeding the budget limits, would be more in keeping with the conditions prevailing at the time the programme is carried out. Implementation under the second part of the multiannual programme will call for an outlay of 40 million ECU spread over three years. It is therefore proposed that the Council increase the amount for guidance for the second part of the multiannual programme from 15 to 55 million ECU and extend the validity of the Regulation from four to seven years.

ANNEX

PRESENTATION OF THE PROPOSED PROJECTS

Two major areas in the information technologies that can advantageously be tackled in a Community framework have been selected for the implementation of applications projects under the conditions laid down in the second part of the multiannual data processing programme. The proposed projects are suitable to help attain the objectives laid down but at the current stage they are submitted by way of example; when the programme is actually carried out, some of them may be replaced by others that seem to be more in keeping with the aims pursued.

The amounts given show the Community contribution to the project, which is 50 % of its costs unless otherwise indicated.

The two fields selected are as follows :

- ADA
- cross-frontier information systems involving distributed data bases.

A) ADA

ADA is a modern programming language of general application based on contemporary ideas concerning programming methods and suitable for use in a computerized environment having powerful programming tools. This, combined with its rigorous approach in the matter of standardisation, makes it suitable for the industrialized development of software.

The support received by ADA under the multiannual programme is still inadequate to launch it properly, even though there is no candidate with better future prospects than ADA. However, despite the strategic approach adopted by much of the industry, the companies' capital resources are inadequate to supply investment on the scale needed to compete with the United States industry, which has the advantage of government contracts providing 100 % cover for developments.

Annex (p. 2)

Because of the strategic importance of this language for the European software industry, it is proposed that the current commitment to ADA be continued in four fields. These relate to software development methods, the automated support environment for the language, its formal definition and some pilot projects selected from key sectors for the use of ADA. The projects to be undertaken in these four fields will have to be defined more precisely in cooperation with the industry.

- A.1. Development of software writing techniques to be used in conjunction with ADA. This consists mainly of the development of methods for the use of ADA.
Contribution to project : 3 million ECU.
- A.2. Development of an automated support environment for ADA programs for their full life cycle. This covers the development of tools fitting in to an ADA programming support environment (APSE).
Contribution to project : 9.5 million ECU
- A.3. Formal definition of ADA. A major contribution to the standardization of ADA. In this case, the Commission should bear 100 % of the cost.
Contribution to project : 2 million ECU.
- A.4. Pilot applications of ADA in selected fields. The application still has to be selected from communications, automation of production or data-base software. The choice will be guided by the fact that the application must make optimum use of the new advantages offered by ADA.
Contribution to project : 5 million ECU.

B) Cross-frontier information systems using distributed data-base techniques

Cross-frontier information systems are a particularly suitable field for Community cooperation. Some of the projects of this type carried out under the multiannual programme, such as those on ports or shipping companies, have demonstrated how a Community venture can meet the interests of users across national frontiers in a common information system and give rise to interesting projects. The aim in carrying out projects of this type, applied to distributed data banks, is to help European industry to overcome the technical problems still hindering practical applications and launching on the marketplace. These technical problems which affect practical application arise in particular from the following aspects :

- heterogeneity of the data banks
- the numerous sources interrogated
- distributed updating
- data confidentiality and security
- complexity inherent in the number of banks
- interconnection of open systems
- choice of terminals (in relation with the office automation aspects).

The projects now proposed in order to provide a practical opportunity for overcoming the technical problems are the following advanced applications :

1. Distributed data base for EUROSTAT. Pilot distributed data-base system for the SOEC. Cost 100 % payable by the Commission.
Contribution to project : 3 million ECU.
2. Distribution of commercial data at European level. Access system for distributed data bases of Chambers of Commerce and other similar organizations concerning firms and market products at international level.
Contribution to project : 5 million ECU.

Annex (p.4)

3. Fleet management system for shipping companies. On-board collection of data on the state and operation of each of a shipping company's vessels and transmission by satellite to the company's head office to enable the fleet to be used to better advantage.
Contribution to project : 5.5 million ECU.
4. Distributed data bases for public health. Pilot project for a system linking banks containing data on patients; these data may be scattered through several banks.
Contribution to project : 4.5 million ECU.
5. TRIANGLE project. Set of R-D projects on networks to be carried out in cooperation between the Hahn-Meitner-Institute in Berlin, INRIA in Paris, and NCC in Manchester.
Contribution to project : 1.5 million ECU.

These advanced applications each tackle a combination of the problems mentioned above and the idea is that together they will cover all these problems encountered at the level of practical applications. However, as stated above, they are given here by way of example : when the programme is actually carried out, some of them may be replaced by others which appear more suitable to help solve all the technical problems involved and which will be identified with the help of the industry.

COUNCIL DECISION

amending Council Decision 79/783/EEC of 11 September 1979 adopting a multiannual programme (1979 to 1983) in the field of data-processing

The Council of the European Communities,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 235 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament (1),

Having regard to the opinion of the Economic and Social Committee (2),

Whereas the use made of the mechanism for Community support in the field of data-processing, provided in accordance with Council Regulation (EEC) 1996/79 of 11 September 1979 (3), indicates that by the end of 1982 the maximum amount laid down in Article 2 of Council Decision N° 79/783/EEC will have been used up as far as activities for the promotion of data-processing are concerned;

Whereas the Council, when it adopted Decision 79/783/EEC (4), indicated that it was prepared, in the light of the results achieved by the programme during its first two years, to consider a new programme;

(1)

(2)

(3) O.J. N° L 231, 13.9.79, p. 1

(4) O.J. N° L 231, 13.9.79, p. 23

Whereas the number and quality of the projects supported justify continuing the use of the support mechanism for projects to promote data-processing in accordance with Council Regulation (EEC) N° 1996/79;

Whereas it is evident that continuation of the programme is necessary in order to achieve certain Community aims in the operation of the common market; whereas the Treaty establishing the European Economic Community has not, however, provided the necessary powers,

HAS DECIDED AS FOLLOWS :

ARTICLE 1

The title of Council Decision N° 79/783/EEC of 11 September 1979 is hereby amended to read as follows :

"Council Decision of 11 September 1979 adopting a multiannual programme in the field of data processing".

ARTICLE 2

The text of Article 1 of Council Decision n° 79/783/EEC is hereby replaced by the following text :

"A multiannual programme is hereby adopted for the field of data processing. Its objects are as follows :

- general measures : standardization, public procurement, collaboration between research centres and organizations supporting the use of data processing, a study of the sector and of employment, the confidentiality and security of data, and legal protection for computer programs,
- promotion measures : measures covering software, applications and aspects to be agreed on by the Council in the light of the studies carried out within the framework of the general measures and in implementation of the Council resolution of 11 September 1979 on a Community action promoting micro-electronic technology.

The duration of the programme shall be 7 years. The programme is defined in the Annex hereto".

ARTICLE 3

The text of Article 2 of Council Decision N° 79/783/EEC is hereby replaced by the following text :

"The appropriations necessary for the implementation of the programme shall be entered in the general budget of the European Communities. For guidance, they are assessed at ten million ECU for the general projects and at fifty-five million ECU for the promotion projects for the data-processing sector.

Done at Brussels,

For the Council

The President

FINANCIAL SUMMARY

1. Budget item

7702. Community operations for the development of data processing.

2. Legal basis

Article 235; Council Decision 79/783/EEC of the 11th September 1979 adopting a multiannual programme in the field of data-processing (O.J. N° L 231 of 13.9.79) - Council Regulation (EEC) N° 1996/79 of the 11th September 1979, on a Community support mechanism in the field of data-processing (O.J. N° L 231 of 13.9.79).

3. Description of the proposal

The aim of this proposal is to extend the resources and the period of validity of the second part of the multiannual programme in the field of data-processing, all the funds available having been committed by the end of March 1982. The aim of the proposed activities is to promote the European software industry by means of advanced data-processing application projects. These activities concern European industrial firms active in the field of software.

4. Justification of the proposal

To promote, within the European software industry, the passage of information technologies concerning ADA and transnational information systems from the R and D stage to that of the market-place.

5. Financial consequences

- 5.1. The proposal involves an increase in the amount for guidance from 15 MECUS to 55 MECUS. This amount of 40 MECUS should be committed between 1983 and 1986, the period of validity of the programme (1979 to 1983) being lengthened by 3 years (1984 to 1986).
- 5.2. The projects represent a total of 80 MECUS, 50 % financed under the Community budget and 50 % financed by industry.
- 5.3. The appropriations should be dissociated. The 40 MECUS will be committed in 1983 and, mainly, in 1984. The payments will be staged essentially as follows : 10 MECUS spread over 1983 and 1984, 12 MECUS in 1985, 10 MECUS in 1986 and 8 MECUS in 1987.

6. Financial implications of functional and operational appropriations

The activities will be managed by the personal already engaged in the management of the projects supported under the second part of the multiannual programme.

7. Method of finance utilized

Funding from the appropriations of post 7702, from 1983 onwards.