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COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

on Trade Electronic Data Interchange Systems
(TEDIS)

Proposal for a
COUNCIL REGULATION

introducing the preparatory phase of a Community programme on
trade electronic data interchange systems
(TEDIS)

(submitted to the Council by the Commission)

COM(86) 662 final

PREFACE

The various steps taken by the Commission and the Member States in relation to telecommunications, IT standards and the INSIS, CADDIA, and CD projects have led to the definition of work programmes that are now under way. Their aim is to develop the technical infrastructure needed for the introduction and use of a standardized approach to electronic data interchange.

The first step planned by the Commission and the Member States towards the standardized approach to electronic data interchange was to facilitate the trade administrative procedures needed for the transmission to the administrative departments of the Commission and the Member States of information on import/export data, financial control and agricultural market management (CADDIA).

The purpose of the new venture proposed here is to extend the concept of the standardized approach to electronic data interchange to ALL users in business, industry or government.

SUMMARY

The modern economy relies increasingly on the exchange of trade data or information between business partners. A large volume of data is exchanged in this way. The speed, reliability and relevance of the flows of information exchanged are increasingly affecting the competitiveness of firms both large and small.

In response to the current requirements of the business world, electronic data interchange (EDI) offers substantial advantages and opportunities. These include abolition of the work of re-encoding data, improvements to customer service, better stock management and the speeding-up of the sale/invoicing/payment cycle.

In recent years several private efforts to introduce EDI have been made in Europe. Although the value of these spontaneous approaches should not be underestimated, it has to be admitted that there are numerous and costly duplications of effort and harmful differences of approach, especially as regards standardization.

The repercussions are harmful to the general economy as well as to the telecommunications and IT industry and services in Europe. Whereas EDI is developing very rapidly in the United States, Europe's efforts have in most cases not gone beyond the design or at best prototype stage.

As is pointed out on many occasions in the White Paper on completing the internal market, the ease of circulation of information between trade and industry and the Member States is essential to the free movement of goods and services and to the development of intercompany cooperation throughout Europe.

With regard to EDI, it is necessary:

- to avoid the emergence of a number of incompatible national approaches,
- to restrict the implementation of watertight systems that cannot communicate with each other,
- to abolish or limit the danger of the IT market in Europe becoming fragmented,
- to help to promote market unity and the achievement of the necessary economies of scale.

Measures taken so far by the Community have helped to establish the necessary basis for the setting-up of EDI systems. These have included general measures applicable to a number of economic sectors and the commissioning of feasibility studies or pilot projects relevant to specific activities.

These measures have made it clear that the main barriers to the setting-up of operational trade EDI systems are of a transverse nature, such as:

- the inadequacy of standardization,
- protocol incompatibilities,
- incompatibilities between hardware and software,
- the need for multilingualism in cross-frontier information exchange,
- the unsuitability of the conventional telephone system, mainly on grounds of cost and disparities in charges.

It has also been found that:

- activities of general interest to solve the abovementioned horizontal problems and specific pilot projects must be closely linked and conducted in parallel;
- the Commission has so far supported projects involving solely or mainly public departments;
- greater support should henceforth be given to the preparation, development and distribution of trade EDI systems intended for business users, and especially small and medium-sized firms, by backing the efforts of private operators without usurping their role.

Consequently it is necessary:

- to put a stop to the proliferation of watertight trade EDI networks and the widespread incompatibility that would result;
- to promote the design and installation of trade electronic data interchange systems meeting user requirements, especially those of small businesses;
- to stimulate the European telecommunications and information technology equipment and services industry so that it can meet user demand.

The proposed programme includes horizontal and vertical activities with continuous interaction between them. The horizontal activities are projects of common interest needed for the development of EDI; the vertical activities consist of sectoral projects. The intersection of horizontal questions with vertical applications gives rise to specific problems that have to be tackled within both the general framework of the horizontal problem and the specific context of the vertical application. That is why coordination in the development of vertical applications is absolutely essential.

The horizontal activities needed for the development of trade EDI are:

- (a) coordination at Community level of the work going on in the Member States on the development of trade EDI systems;
- (b) alerting potential users by giving them comprehensive information on the potential of EDI and providing the technical documentation they need to set up trade EDI systems;
- (c) alerting European hardware and software manufacturers to the opportunities offered by the development of EDI systems and the problems that have to be overcome before they can be implemented;

- (d) logistic support for European sectoral groups so as to help them prepare and launch trade electronic data interchange systems;
- (e) consideration of the specific requirements of trade electronic data interchange in the telecommunications and standardization policies; carrying out of preparatory work for that purpose;
- (f) initially, study of the security requirements for trade electronic data interchange systems so as to guarantee the confidentiality of the messages transmitted; if appropriate at a later stage implementation of the activities deemed necessary;
- (g) study of the specific problems caused by the many different languages in the Community and examination of the possibility of using, as regards the multilingual aspects, the results obtained or expected under the Systran and Eurotra machine translation programmes;
- (h) initially, study of the advisability of promoting the development of the specialized software needed for trade electronic data interchange; possibly at a later stage financial support for the development of specialized EDI software;
- (i) assistance in the setting up of conformance testing centres for software and hardware used in trade electronic data interchange systems (and claiming to comply with an international or European standard);
- (j) solving of legal problems that might hamper the development of trade electronic data interchange and ensuring that restrictive telecommunications regulations cannot inhibit the development of trade EDI systems.

As far as the vertical activities (sectoral projects) are concerned, it would be advisable in the early stages:

- (a) to draw up a list of existing or potential sectoral projects on trade electronic data interchange and make a comparative analysis of them, in particular to see how they can help to solve horizontal problems;
- (b) to identify specific requirements emerging during the implementation of trade EDI systems that could be solved more easily with Community assistance;
- (c) to study in particular assistance that could be given to small and medium-sized firms to enable them to take part in trade electronic data interchange;
- (d) to examine the possibility of supporting pilot projects, the gradual implementation of which would help to find solutions that could be extended to problems of common interest encountered by most trade EDI systems.

At a later stage, should the preliminary studies have shown the need for such action, it may be necessary:

- (e) to grant special support for small businesses to help them take part in trade EDI;
- (f) to support the development of certain trade EDI pilot projects by means of a form of assistance and type of financing yet to be defined;
- (g) to take action to meet certain specific requirements identified.

The programme would be implemented in two phases:

- the preparatory phase,
- the pilot project phase.

In the preparatory phase (6 million ECU lasting two years), the horizontal activities necessary for the development of trade EDI will be implemented and the preliminary studies on the vertical activities (sectoral projects) will be carried out.

After the preparatory phase a progress report will be presented to the Council before the pilot project phase is started; this report will also suggest guidelines for the continuation of the programme.

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1. The modern economy relies increasingly on the exchange of data between business partners

Commercial operations today, whether national or international, involve numerous exchanges of trade data or information between business partners. The volume of data exchanged in this way is vast, first because the data are transferred to separate documents at each stage and for each operation in a commercial transaction from the request for a quotation up to invoicing and payment, and secondly because there are so many different business partners: manufacturers, suppliers, customers, insurers, bankers, carriers, forwarding agents, etc.

The operations involved in the processing and transmission of trade information are often far more time consuming than the manufacture or delivery of the goods (or provision of services). This applies in particular whenever a business transaction involves operators or partners in different countries, even if those countries are members of the EEC.

The flow of information is also tending to increase with the growing internationalization of economic activity, the greater number of after sales services offered to customers and, further up the production line, market services purchased by companies.

In addition, firms are obliged to provide several national departments, in particular the customs services, with information on their international transactions.

For example, it is quite common for the accounts department of a large firm to handle monthly 10 000 to 20 000 invoices and 1 000 to 2 000 payment advices amounting to some 10 000 different documents.

The processing is generally done in two successive operations: first the information is processed on paper (the form in which the data are most frequently transmitted) and then the data are encoded for computer processing.

The speed, reliability and relevance of the information flows exchanged are increasingly affecting the competitiveness of companies both small and large.

The ability to process and exchange trade data as quickly as possible allows stocks to be reduced, helps to cut financial costs and gives companies an additional competitive edge by improving the service offered to their customers: flexibility, speed and a greater ability to respond to their changing needs and desires.

In the view of European motor manufacturers, it is by reorganizing trade data exchanges with their suppliers along these lines that they will best be able to withstand Japanese competition.

2. Electronic data interchange offers substantial advantages and opportunities

Definition of EDI: electronic data interchange (EDI) relates to the exchange of information and messages (instead of conventional documents) transmitted between business partners by electronic means of communication.

The advantages of trade electronic data interchange include:

- (a) Abolition of data re-encoding, thereby cutting down on paper work and reducing administrative tasks. The first effect of trade electronic data interchange is to reduce data preparation costs since data are transmitted automatically without human intervention; it also reduces transcription errors, thereby improving data reliability.
- (b) Improvement of customer service, mainly through:
 - . faster processing of orders since fewer manual operations are required;
 - . more accurate order chasing since there is no data redundancy;
 - . better and faster information for customers through the centralization of data and immediate access.
- (c) Better stock management because trade electronic data interchange allows:
 - more accurate sales prediction;
 - shorter delivery periods;
 - reduction of buffer stocks.

The aim is "just in time" deliveries so as to reduce management costs and the capital tied up in stocks to a minimum.

- (d) Acceleration of the sale/invoicing/payment cycle since trade electronic data interchange cuts out postal delays in the sending of orders, invoices and payments; the faster payment that results helps to improve the companies' cash position.

The opportunities offered by EDI are considerable. For example:

- (a) It has been estimated that the costs resulting from paperwork, errors, data redundancy, excessive stockholding, waiting time in offices, factories and customs posts could account for up to 10% of the cost of the exported finished product.
- (b) Taking transport alone, it seems that the costs of conventional documents and transport delays caused by the production and inspection of these documents make up 10 to 15% of the final transport cost.

These overall estimates are confirmed by more precise evaluations in specific branches.

Motor manufacturers have announced a possible saving of at least 200 ECU per vehicle through the intensive use of trade electronic data interchange, which allows storage periods to be reduced by two to three weeks. Postage costs could also be cut by 75%.

To take another field, trade electronic data interchange between a few large supermarkets and some of their major suppliers in the USA has given savings of USD 300 million in one year.

EDI is of at least as much benefit to small firms as large ones, even if the figures available all relate to the latter. Because they are often subcontractors and have a low credit worth, small firms suffer more than larger ones from the burden of financing charges, cash flow problems and the tying-up of capital in stocks as a result of the time required to transmit trade data and pay for supplies.

3. The current situation in Europe is not satisfactory

In recent years a few private efforts to establish EDI have been made in Europe. Although the usefulness of these spontaneous ventures should not be underestimated, it is clear that duplication is frequent and costly, the approaches and solutions found for similar problems differ widely and sometimes lead to conflicting national or international positions on the general approach and on the solving of transverse problems, i.e. those common to all EDI systems.

- (a) The trade electronic data interchange systems now operational are for the most part hermetic systems accessible to users in a restricted group or a given economic sector. Some users are entirely dependent on given manufacturers who have imposed their own hardware and software which are not compatible with the products of other suppliers.
- (b) Communications are often difficult between business partners in the same country, to say nothing of different countries. Where the public telephone system is used, the uneven line quality often causes problems (interruption of transmission, risk of loss of information, slowing down of transmission rate, etc.). Internationally, there is a strong likelihood of incompatible communication protocols.

There are still standardization inadequacies in some fields relevant to EDI, leaving scope for several possible interpretations, and allowing different types of products incompatible with each other to be developed. What is more, the X25 communications protocol, standardized internationally, has not yet been put into effect in a harmonized fashion in all member countries, and this hampers the fast, reliable and economic communication of trade data from one country to another.

- (c) The cost of calls on the conventional telephone line, especially international ones, is still too high to encourage intensive use of the telephone for trade electronic data interchange. Users are also faced with charges that differ from one country to another.
- (d) Data security and confidentiality is not always guaranteed to the extent that business partners would like because of the inadequate resources allocated to this question and the piecemeal efforts being made in different countries.
- (e) From the legal viewpoint, too, there are serious difficulties, for example with regard to the authentication of documents exchanged by electronic means, in particular the proof acceptable in the event of disputes, or with regard to restrictive regulations on the interconnection of private networks to public networks.

4. The consequences of this situation are harmful to the economy in general and to the telecommunications and IT industry and services in Europe

In the United States electronic data interchange in a homogenous environment (identical hardware and software) and in a very limited framework has been operational for ten years. Only recently have the Americans started working actively on trade electronic data interchange in a heterogeneous environment (different hardware and/or software) and accessible to companies having different industrial activities. Ventures of this kind have been operational only for about two years.

The gap between Europe and the United States is likely to open up very rapidly: ventures in Europe are still for the most part at the project or at best prototype stage whereas electronic data interchange is expanding fast in the United States where it is already operational.

Another factor is that the European industry offering telecommunications and IT services is showing little awareness of the scope of the market opened up by trade electronic data interchange in Europe and elsewhere.

In contrast, there are already many ventures in Europe launched from across the Atlantic¹ in order to seize the opportunities available on this fast growing market.

The faster development, better coordinated on a European scale, of electronic data interchange systems would stimulate the European supply of hardware, software and telecommunications and IT services.

5. Justification for Community aid

Ease of circulation of information between the business world and the Member States is an essential condition for the free movement of goods and services and for the development of cooperation between companies throughout Europe. The White Paper on completing the internal market² drawn up by the Commission for the European Council (Milan, 28-29 June 1985) points this out many times:

"The development of new technologies has led to the creation and development of new cross-border services which are playing an increasing important role in the economy. However, these services can develop their full potential only when they serve a large, unobstructed market. This applies equally to audiovisual services, information and data-processing services and to computerized marketing and distribution services" (page 30, section 113). "In addition, the Commission would stress that a market free of obstacles at Community level necessitates the installation of appropriate telecommunication networks with common standards" (page 31, section 114).

This circulation of information between business partners calls for the adoption of common standards and protocols (equipment, communications network, software) and the harmonization of charging policies.

¹ For example, McDonnell Douglas Electronic Data Systems, using the world communications network Tymnet, is offering in Europe its electronic data interchange (EDI) system. Geisco, a service company belonging to the American General Electric Group, set up in the United Kingdom in July 1985 a network called Geisco's Motornet for trade data interchange between suppliers and manufacturers in the British motor industry. Geisco is also planning to introduce in the United Kingdom its accelerated trade payments (ATP) system developed in the US with the First National Bank of Chicago. The City Bank and McGraw Hill have just got together in the Global Electronics Markets Company (GEMCO) to capture a large part of the fast-growing market for trade electronic data interchange.

² COM(85) 310 final of 14 June 1985.

The Community is the right place to tackle the joint legal and technical problems because of the consistency, synergy and economies of scale it can offer. This is particularly true in the context of the increase in cross-frontier commercial transactions and the completion of the large market.

It is essential to establish a harmonized or common legal environment within which EDI systems can be developed and used without hindrance.

Technically, too, the need for compatibility and for different hardware and software to be able to communicate calls for either the common application throughout the EEC of international standards, or the international use of uniform European standards. In addition, since problems such as the overall reliability of communications networks and the confidentiality and security of trade data extend across frontiers and are of interest to all, it is essential to pool the R&D and experimental work needed in this field and to adopt solutions harmonized at European level.

The Community coordination urgently desired by current or potential users of trade electronic data interchange is necessary in order to:

- avoid the emergence of a number of incompatible national approaches;
- restrict the implementation of hermetic systems that cannot communicate with each other,
- prevent or limit the danger of the European IT market becoming fragmented as a result of the diversity of the systems and approaches adopted, - help to promote market unity and the achievement of the necessary economies of scale.

6. **Measures already taken by the Community have established the necessary basis for the setting-up of EDI systems between business users**

These include both measures of a general nature applicable to a number of economic sectors and feasibility studies or pilot projects relevant to specific activities.

6.1 **General initiatives and measures**

(a) The progress made since 1984 under the Community standardization policy for information technology (IT) and telecommunications can offer the following facilities for the development of EDI:

- a suitable framework and machinery for the definition of standardization priorities, the production of standards meeting the needs of carriers and the uniform application of these standards throughout the Community,

- the gradual provision of a set of functional standards¹ that can be directly used in EDI type applications.

In addition standardization work is now in progress in CADDIA (cf. 6.2.1(b) below), in order to adapt and implement guidelines for trade data interchange. It is being carried out in perfect harmony with similar work being done by the United Nations Economic Commission for Europe in Geneva.

- (b) The design of EDI systems will benefit from the telecommunications activities which have in particular established:
- effective arrangements for consultation and study between network operators and Member States,
 - a common framework for the development of strategies, infrastructures, services and terminals,
 - the interconnection of national packet-switched networks in Euronet-Diane,
 - financial instruments to facilitate the establishment of advanced infrastructure and services where they do not yet exist (in particular in the outlying regions of the Community).
- (c) The work done on data security and confidentiality under the multiannual data-processing programme could also be useful in developing the procedures and tools needed for electronic data interchange systems so as to guarantee the security of systems and networks and the integrity of the software used in these applications.
- (d) The development of the specialized information market is helping to set up advanced information services for research and industry under the five-year programme.

6.2 Specific pilot projects for electronic data interchange between certain categories of users

6.2.1 Community programmes and projects concerning public users

- (a) A programme to set up an integrated services² interinstitutional information system (INSIS) was launched in 1982.

¹ Functional standards: standards capable of supplying complex functions based on the chaining of several reference standards as in the case of file transfer via a public network.

² Decision 82/869/EEC of 13.12.1982, OJ No L 368, 28.12.1982.

At the current stage of INSIS, a number of pilot projects are under development or already operational. They include:

- INSEM: Interinstitutional Electronic Mail System,
- OVIDE (Organization of Videotex for European Members of Parliament) which will be the first Community-wide videotex application,

- (b) The Commission has also undertaken coordination work for the specification and implementation of computerized CADDIA systems for use by the Member States and itself.¹

The CADDIA projects, relevant to customs, agriculture and statistics, have so far resulted in the establishment or strengthening of electronic data interchange systems so that:

1. the Commission departments have available the modern tools they need to manage the Customs Union, the common agricultural policy and the relevant statistics;
2. these information systems can be prepared for access by Member State administrations (interactive data banks, user-friendly interfaces, integration of data bases, etc.)

A data base called CANDY (CADDIA Data Interchange Directory) has been set up to centralize and harmonize data message definitions for CADDIA applications. This harmonization makes use of the United Nations Trade Data Elements Directory (UN/TDED) and is being coordinated with the work on electronic data interchange in the business world (see ODETTE).

Under the CADDIA programme, specific work is in progress on the coordinated development of computerized administrative procedures (CD project).

The Community requirements expressed under the CD project include, especially for future computerized customs systems, the need to establish common interfaces between public departments and private users (importers and exporters, forwarding agents, port or airport authorities).

6.2.2 Activities relevant to various private users and supported by the Commission

Three limited activities concerning projects between private users were conducted under the multiannual data-processing programme (1979-83).

The aim was to analyse problems specific to each project and to identify possible solutions by means of feasibility studies or pilot projects.

¹ Council Decision of 26.3.1985, OJ No L 96, 3.4.1985.

The Mercator project was designed to test the United Nations guidelines for trade data interchange (UN/GTDI) in a European operational environment. Although it substantiated the validity of the guidelines for trade data interchange, the project highlighted two major problems:

- (a) the difficulty of transmitting computerized data on conventional telecommunications networks;
- (b) the incompatibility of several communication software packages claimed to be compatible.

The European ODETTE group (Organization of Data Exchange by Teletransmission in Europe), formed in 1984, brings together representatives of the motor manufacturers and associated industries. One of its major objectives is remote transmission of trade data including all the transactions involved in the procurement cycle.

ODETTE has identified several problems concerning standardization, telecommunications infrastructure, current incompatibility of protocols, legal loopholes, etc. and has outlined common approaches.

The COST 306 project concerned automatic transfer of transport data. Its main objective was to research and analyse a data interchange concept allowing accelerated goods movements through faster and simpler data transmission between business partners. A demonstration project is shortly to be launched.

Recently (June 1986) the ECCMF (European Council of Chemical Manufacturers' Federations), in cooperation with the Commission, organized in Brussels a workshop on trade procedures facilitation and electronic data exchange. A working party whose members included Commission officials was set up to define conditions for the participation of the European chemical industry in trade electronic data interchange.

6.3 Review of past activities

These activities have demonstrated that the main obstacles to the setting up of operational trade electronic data interchange systems lie in problems of a transverse nature, in particular:

- the inadequacy of standardization,
- protocol incompatibilities,
- incompatibilities between hardware and software,
- the need for multilingualism in cross-frontier data interchange,
- the unsuitability of the conventional telephone system, mainly on grounds of cost and disparities in charges.

It has also been found that:

- activities of common interest designed to solve the abovementioned transverse problems and specific pilot projects must be closely linked and conducted in parallel;
- the Commission has so far supported projects involving solely or essentially public departments as users;
- more active support should henceforth be given to the preparation, development and distribution of trade electronic data interchange systems intended for business users, and especially small and medium-sized firms, by backing the efforts of private operators without usurping their role.

7. Past activities have to be expanded and adapted to the needs of the business world for electronic data interchange

7.1 Objectives

The objectives are:

- to put a stop to the proliferation of hermetic trade EDI systems and the widespread incompatibility that would result;
- to promote the design and installation of trade electronic data interchange systems meeting requirements of users, especially small businesses;
- to stimulate the European telecommunications and IT equipment and services industry so that it can meet user demand;
- to support the common use of International and European standards where they exist, and in particular the recommendations of the UN/ECE in the field of International Trade Procedures.

7.2 Principles

To attain these objectives it is necessary:

- (a) To make use of the results obtained in earlier or current activities.
This applies in particular to the existing telecommunications and standardization policies which will have to take into account the specific requirements of trade electronic data interchange.
- (b) To establish close consultations with the capital goods industry and the user industries or services.
This will be done in particular through specific sectoral projects which the Commission can support, in particular to promote aspects of common or general interest.
- (c) To ensure constant interaction between horizontal and vertical activities.
The horizontal activities are activities of common interest necessary for the development of TDI (standardization, charging policy, multilingualism, confidentiality, security, etc). The vertical activities are the sectoral projects.

7.3 Content and lines of the proposed activities

The horizontal activities are necessary for the development of trade electronic data interchange. The vertical activities, the sectoral projects, will in the course of development encounter horizontal problems which generally have aspects common to several vertical activities (sectoral projects).

The intersection of horizontal problems with vertical applications will give rise to specific problems that will have to be tackled in the general framework of the horizontal problem and the specific context of the vertical application. Consequently coordination in the development of vertical applications is absolutely essential.

Some of these potential vertical applications may offer solutions suitable for widespread use and have sufficient spin-off to be selected as demonstration projects.

It will be important to help the vertical applications to develop consistently and benefit from the experience gained in other projects in solving horizontal problems that are relevant to them all, so as to ensure that well-harmonized solutions are promoted and implemented.

7.4 Horizontal activities needed for the development of trade electronic data interchange

- (a) coordination at Community level of the work going on in the Member States on the development of trade EDI systems;
- (b) alerting potential users, in particular by:
 - preparation and widespread dissemination of general information in the Community languages;
 - organization of seminars in all the Member States, particularly to provide information for small and medium-sized businesses,
 - preparation and dissemination in all the Community languages of the technical documentation needed for the setting up of trade EDI systems;
- (c) alerting European hardware and software manufacturers to the opportunities offered by the development of EDI systems and the problems that have to be overcome before they can be implemented;
- (d) logistic support (meeting rooms, interpretation, etc) for European sectoral groups to facilitate the preparation and launching of trade electronic data interchange systems;
- (e) consideration of the specific requirements of trade EDI in telecommunications and standardization policies; carrying out of preparatory work for that purpose;

- (f) initially, study of the security requirements for trade electronic data interchange systems so as to guarantee the confidentiality of the messages transmitted; if appropriate at a later stage implementation of the activities deemed necessary;
- (g) study of the specific problems caused by the many different languages in the Community and examination of the possibility of using, as regards the multilingual aspects, the results obtained or expected under the Systran and Eurotra machine translation programmes;
- (h) initially, study of the advisability of promoting the development of the specialized software needed for trade electronic data interchange; this software must support both information transfer and the structuring, formatting and coding of data in accordance with the selected standard; possibly at a later stage financial support for the development of specialized software needed for EDI;
- (i) assistance in the setting up of conformance testing centres for software and hardware used in trade electronic data interchange systems (and claiming to comply with an international or European standard);
- (j) solving of legal problems that might hamper the development of trade electronic data interchange and ensuring that restrictive telecommunications regulations cannot inhibit the development of trade EDI systems.

7.5 Vertical activities - sectoral projects

Initially it will be necessary:

- (a) to draw up a list of existing or potential sectoral projects on trade electronic data interchange and make a comparative analysis of them, in particular to see how they can help to solve horizontal problems;
- (b) to identify specific requirements emerging during the implementation of trade EDI systems that could be solved more easily with Community assistance;
- (c) to study in particular assistance that could be given to small and medium-sized firms to enable them to take part in trade electronic data interchange;
- (d) to examine the possibility of supporting pilot projects, the gradual implementation of which would help to find solutions that could be extended to problems of common interest encountered by most trade EDI systems.

At a later stage, should the preliminary studies have shown the need for such action, it may be necessary:

- (e) to grant special support for small businesses to help them take part in trade EDI;
- (f) to support the development of certain trade EDI pilot projects by means of a form of assistance and type of financing yet to be defined;
- (g) to take action to meet certain specific requirements identified.

8. Budget

The programme could be implemented in two phases:

- the preparatory phase,
- the pilot project phase.

8.1 Preparatory phase

In the preparatory phase (6 million ECU lasting two years) the activities and studies listed in 7.4 and 7.5 above will be carried out, i.e.:

Activities

- coordination at Community level of existing work on EDI (7.4.a);
- alerting of users (7.4.b);
- alerting of European manufacturers (7.4.c);
- logistic support (7.4.d);
- preparatory work on standardization and telecommunications (7.4.e);
- assistance in setting up conformance testing centres (7.4.i);
- consideration of legal aspects (7.4.j);

Studies

- study of security requirements to guarantee message confidentiality (7.4.f);
- examination of the possible use of the results obtained under existing machine translation programmes (7.4.g);
- study of the advisability of promoting the development of specialized software (7.4.h);
- list of sectoral projects on trade EDI (7.5.a);
- identification of specific requirements of trade EDI systems (7.5.b);
- study of possible assistance for small businesses (7.5.c);
- consideration of possible support for pilot projects (7.5.d).

After the preparatory phase a progress report will be presented to the Council before the pilot project phase is started; this report will also suggest guidelines for the continuation of the programme.

8.2 Pilot project phase

The purpose of this second phase, the amount and duration of which still has to be determined, is to monitor as far as possible the recommendations made after the studies carried out during the preparatory phase and also to continue where necessary some of the activities already started during the preparatory phase.

8.3 Estimated appropriations required for the preparatory phase

'000 ECU

	1987	1988	Total
- Coordination at Community level of existing work	500	500	1 000
- Alerting of users	500	500	1 000
- Alerting of manufacturers	200	200	400
- Logistic support	50	50	100
- Preparatory work on standardization and telecommunications	250	250	500
- Conformance testing centres	250	500	750
- Legal aspects	150	150	300
- Study of security/confidentiality requirements	200	250	450
- Multilingual aspects	50	50	100
- Study on promoting the development of specialized software	100	100	200
- List of sectoral projects	150	150	300
- Identification of special requirements of EDI systems	100	100	200
- Study on aid to small businesses	100	100	200
- Study on support for pilot projects	250	250	250
Total ('000 ECU)	2 850	3 150	6 000

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**Proposal for a Council Regulation
introducing the preparatory phase of a Community programme
on trade electronic data interchange systems (TEDIS)**

EXPLANATORY MEMORANDUM

Ease of circulation of information between business partners and the Member States is an essential condition for the free movement of goods and services and the development of Europe-wide cooperation between companies.

The purpose of this communication from the Commission to the Council is to demonstrate the importance of trade electronic data interchange and the outstanding opportunities and advantages it offers.

In this field it is essential to prevent the emergence of a number of incompatible national approaches, to limit the implementation of systems that cannot communicate with each other, to prevent or restrict the danger of the IT market in Europe becoming fragmented, and to help to promote market unity and the achievement of the necessary economies of scale.

Those are the reasons underlying this proposal for a Community programme on trade electronic data interchange systems (TEDIS) which is designed both to seek general solutions to problems of mutual interest and to support the development of sectoral projects, the gradual implementation of which would help to find solutions suitable for general application to the common problems encountered by trade EDI systems.

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PROPOSAL FOR A COUNCIL REGULATION

introducing the preparatory phase of a Community programme on trade electronic data interchange systems (TEDIS)

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 Community has as its task, by establishing a common market and progressively approximating the economic policies of Member States, to promote throughout the Community a harmonious development of economic activities and closer relations between the States belonging to it;

Whereas the Heads of State or of Government, meeting in Stuttgart, Athens and Fontainebleau, have emphasized the importance of telecommunications as a vital driving force for economic growth and social development;

Whereas the European Parliament, in evaluating the situation and development of telecommunications, emphasized the key role of the latter in the future political, social and economic development of the Community (debates of the European Parliament on telecommunications 1983, Leonardi report, Albert and Ball report of 1982);

Whereas on 17 December 1984 the Council approved the main features of a Community policy on telecommunications, including the aim of developing advanced telecommunication services and networks through Community projects;

Whereas the telecommunications sector is of great economic importance as regards both its own industrial activities and its contribution to efficient information interchange throughout the Community;

Whereas there are specific aspects to information technology standards and the work needed to produce them, and in particular:

- the complexity of the technical specifications and the precision needed for data interchange and systems interoperability;
- the urgent need for standards in order to prevent totally incompatible (trade) electronic data interchange systems being developed;
- the need to ensure that international standards are implemented on a basis that makes them credible for practical use;

Whereas a general programme of information technology and telecommunications standardization is being implemented;

Whereas the proposal for a Council Directive on standardization in the field of information technology and telecommunications¹ is intended to establish in those sectors a general framework for drawing up standards or common technical specifications so as to facilitate information exchange throughout the Community by breaking down the barriers created by the incompatibilities that stem from the absence of standards or their lack of precision;

Whereas under the C.D. project² action is to be taken to ensure close cooperation with commercial and industrial interests so as to provide appropriate communications and information exchange interfaces between commercial and industrial systems and those of customs administration;

¹OJ No L

²OJ No C 167, 6.7.1985, P.3

Whereas the abovementioned objective can be achieved only through the establishment of close cooperation between commercial and industrial interests in different industries so as to ensure the necessary compatibility of trade electronic data interchange systems;

Whereas the C.D.project requires that consideration be given to the aspects concerning the security, protection and privacy of data in respect of imports, exports and intra-Community trade supplied to, held by, or in course of transmission between the Commission, customs administrations and commercial CIRCLES.

Whereas the above questions form part of a much wider issue, the protection of information in the context of trade electronic data interchange between information systems; whereas it is essential to ensure consistency between the measures taken under the C.D.project and those implemented in the industrial context;

Whereas the Commission's White Paper on completing the internal market underlines the importance of the development of new cross-border services and the part that telecommunications networks based on common standards can play in creating a market free of obstacles at Community level;

Whereas trade electronic data interchange can increasingly help to strengthen the competitiveness of European companies in manufacturing and services;

Whereas there is at present a rapid increase in public and private efforts at both national and international level to bring into service within companies, groups and industries trade electronic data interchange systems that are not compatible with each other;

Whereas the diverse and piecemeal approaches to trade electronic data interchange adopted within a country or more generally a firm, group of firms or industry are likely to lead to the establishment of incompatible systems unable to communicate with each other and to prevent both users and suppliers of equipment and services from benefiting to the full from the advantages offered by the development of trade electronic data interchange;

Whereas to ensure that these trade electronic data interchange systems be able to communicate it is necessary to adopt a programme containing an initial set of activities of common interest needed for the coordinated development of trade electronic data interchange and a further set of activities more closely linked to sectoral projects so as to help solve in a coordinated fashion the common problems encountered during their development;

Whereas in a preparatory phase it is necessary to carry out activities and studies so as to establish and develop conditions conducive to the coordinated development of trade electronic data interchange;

Whereas in the light of results obtained in the preparatory phase it will be necessary to define the aims and details of a second phase offering support for pilot projects and continuing some of the activities started in the preparatory phase;

Whereas the Treaty has not provided the necessary specific powers,

Article 1

A Community programme on trade electronic data interchange systems (TEDIS) is hereby set up.

Article 2

The preparatory phase shall be implemented in accordance with the provisions of this Regulation. It shall cover a period of two years starting on 1 January 1987.

Article 3

The aims of the preparatory phase are:

1. coordination at Community level of work going on in the Member States on the development of trade electronic data interchange systems;
2. alerting of potential users;
3. alerting of European hardware and software manufacturers to the opportunities offered by electronic data interchange;
4. logistic support for European sectoral groups;
5. consideration of the specific requirements of trade electronic data interchange in telecommunications and standardization policies; carrying out of preparatory work for that purpose;
6. help in the setting up of conformance testing centres for software and hardware used in trade electronic data interchange systems;
7. solving of legal problems that might inhibit the development of trade electronic data interchange and ensuring that restrictive telecommunications regulations cannot hamper the development of trade electronic data interchange;
8. study of security requirements for trade electronic data interchange systems so as to guarantee confidentiality of messages transmitted;

9. study of specific problems caused by the many different languages in the Community and examination of the possibility of using of the results obtained or expected under the machine translation programmes Systran and Eurotra;
10. study of the advisability of promoting the development of the specialized software needed for trade electronic data interchange;
11. list of existing or potential sectoral projects on trade electronic data interchange and a comparative analysis of them;
12. identification of special requirements emerging during the implementation of trade electronic data interchange systems that could be solved more easily with Community assistance;
13. particular study of the assistance that could be given small businesses to help them to take part in trade electronic data interchange;
14. possible support for pilot projects whose gradual implementation would help to find solutions that could be extended to problems of common interest encountered by most trade electronic data interchange systems.

Article 4

Activities in the preparatory phase shall be carried on in coordination with the existing or planned policies and activities in the Community on telecommunications, the information market, value-added networks and services, standardization and multilingualism, and in particular with the CADDIA and CD projects, so as to ensure the necessary interaction with the specific requirements of trade electronic data interchange.

Article 5

Contracts for the preparatory phase shall be concluded with companies, including small and medium-sized firms, research establishments and other bodies established in the Community.

Article 6

1. The Community shall contribute to the preparatory phase of the programme within the limits of the appropriations entered for that purpose in the general budget of the Communities.
2. The amount estimated necessary to cover the Community's contribution to the work in the preparatory phase of the programme is 6 million ECU for the duration of the preparatory phase.

Article 7

The Commission shall ensure that the preparatory phase of the TEDIS programme is carried out satisfactorily and shall take the appropriate implementing measures.

Article 8

The Commission shall submit to the Council by 1 January 1989 at the latest a report on the execution of the work defined in this Regulation and on guidelines for the continuation of the TEDIS programme.

Article 9

This Regulation shall enter into force on 1 January 1987.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the Council

The President

FINANCIAL RECORD

1. Relevant budget heading

7705: Trade electronic data interchange (TEDIS)

2. Legal basis

Article 235

Communication from the Commission to the Council on trade electronic data interchange systems (TEDIS) COM(86)... and proposal for a Council Regulation introducing the preparatory phase of a Community programme on trade electronic data interchange systems.

3. Proposed classification

Non-compulsory expenditure (Article 235).

4. Description of and justification for the project

The objectives of the TEDIS programme are to avoid the proliferation of watertight trade electronic data interchange systems with the inevitable widespread incompatibility, to encourage the design and setting up of trade electronic data interchange systems meeting users' requirements and to simulate the capability of the European IT equipment and services industry to meet users' demands. The TEDIS programme is in two phases: the preparatory phase and the pilot project phase. Only the preparatory phase is covered by this Regulation. The aim of the preparatory phase is to carry out activities and studies so as to establish and develop the favourable conditions needed for the development of trade electronic data interchange.

5. Type of expenditure and method of calculation

The appropriations are entered under item B 7705 of the general budget. They will be needed to cover the contracts in the preparatory phase, expenditure in support of publicity and dissemination activities and the cost of finding coordinated solutions to the various problems of mutual interest raised by the implementation of trade electronic data interchange systems.

6. Financial implications for operating appropriations

6.1 Timetable of commitment and payment appropriations (million ECU)

Year	Commitment	Payment
1987	2.85	1.425
1988	3.15	2.25
1989	-	2.325

6.2 Share of Community financing in the total cost of the project

The Community's financial contribution will vary from 50 to 100% depending on the activities carried out in the preparatory phase.

6.2 Financing of the programme during the current year

In 1986 no financing will be needed to launch the TEDIS programme.

7. Financing implications for staff and current administrative appropriations

7.1 Staff working exclusively on the project

- 3.5 officials - Category A
- 1.5 officials - Category C

7.2 Since this staff will be included under the Commission's "operation" establishment plan, the budgeted posts in the "operation" section will have to be increased accordingly.

COM(86) 662/3 final

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Brussels, 6 June 1987

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

on Trade Electronic Data Interchange Systems
(TEDIS)

Proposal for a
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introducing the preparatory phase of a Community programme
on trade electronic data interchange systems
(TEDIS)

(submitted to the Council by the Commission)

Possible effects of the planned activities on small and medium-sized firms

The draft communication on trade electronic data interchange presented to the Commission is of interest to small and medium-sized firms in the following ways:

1. It will be easier for small firms to connect to sectoral EDI systems since one of the objectives of the proposed programme is to prevent the proliferation of watertight trade electronic data interchange (EDI) networks. A direct consequence of the standardization effort will be the use of similar hardware and software whatever the EDI network to which a small firm wishes to be connected.
2. One consequence of the proposed activities will be that the advantages of EDI will no longer be limited solely to the large or multinational companies that at present are alone in a position to set up watertight networks for their own use. Thus small firms would be able to cut out the re-encoding of data, provide a better customer service, improve their stock management and, not the least advantage, benefit from the speeding-up of payments, which would help to improve their cash flow position.
3. It is expected that small firms will be able to benefit from contracts in the preparatory phase of the Community programme on trade electronic data interchange systems (TEDIS). In addition, small businesses will be invited to take part in the pilot projects so as to ensure that their specific needs are borne in mind in the definition of these projects.

In conclusion, the TEDIS programme will help to put small and medium-sized firms on an equal footing with large companies as far as EDI is concerned.