



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 03.09.1997
COM(97) 335 final

COMMUNICATION FROM THE COMMISSION
TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

ON

**THE EVALUATION OF THE TRADE ELECTRONIC DATA INTERCHANGE
SYSTEMS (TEDIS) PROGRAMME.**

I. INTRODUCTION.

This Communication responds to the requirement in the Council Decision setting up Phase II of the Trade Electronic Data Interchange Systems (TEDIS) programme¹ requiring an independent evaluation, on completion of the programme, to assess and report on the progress made towards achieving its objectives.

Assignment of the task of evaluation task was through an open Call for Tenders. The contract was awarded to a consortium led by Ernst & Young. In June 1996, this Report was presented to, and approved by, the Consultative Committee (Comité Consultatif TEDIS - CCT), set up by the Council Decision to advise the Commission on measures taken within the programme. The full Report is available for consultation in DG III/B/2 Secretariat (fax: +32-2-296 70 19).

II. THE BACKGROUND OF TEDIS PROGRAMME.

1. The TEDIS programme was launched in two phases in the late 1980s, to promote electronic document interchange (EDI), to develop consistent European standards for EDI, to exploit the potential of EDI as a technology for improving competitiveness, to prepare the ground for a coherent legal framework for EDI, to address (increasingly pressing) security issues, and to raise awareness and facilitate capability transfer between European enterprises.
2. Phase I ran from 1988 to 1989, with a budget of 5.3 million ECU. Its two main aims were to co-ordinate work on the development of trade electronic data interchange systems and to alert potential users and European hardware and software houses. The final report on this Phase stated that the programme had sown the seeds of a process which must run its full term if it were to bear fruit. Consequently, Phase II was set up in 1991 and ran from 1991 to 1994, with a budget of 25 million ECU. Its objectives were to ensure that electronic data interchange systems were established to the best effect, in view of their socio-economic importance, and to mobilise the necessary resources to achieve this at Community level. The EFTA countries have contributed significantly to the design, management and financial support of the TEDIS programme.

III. THE IMPACT OF THE TEDIS PROGRAMME (PHASE II)

3. EU and EFTA funds committed to completed projects in the programme totalled approximately 25 MECU, and examination of private sector contributions suggest that the programme led to the commitment of approximately 40 million ECU. A total of 179 projects were carried out, and two compact discs, "TRI-EDI" and "EDI & ISDN for the Global Information Society", were produced. Over 400 contractor organisations were directly involved in projects. The programme was intended to be near the market, and to address the needs of the private sector it used Calls for Proposals rather than invitations to tender. Seven calls were issued

¹ Council Decision 91/385/EEC of 22.7.1991 (OJ No L 208 of 30.7.91)

over the course of the programme, and a total of 823 bids received. Experts nominated by national representatives evaluated proposals to go forward to the CCT. Individual and grouped bids were considered; 22% received funding.

4. Interim reports were made annually, CD-ROMS were produced, and a mid-term conference took place in Brussels in 1993, with broad participation from industry, the Commission and the TEDIS Consultative Committee, in order to disseminate information on the results of the programme and to raise awareness of EDI. The 44 EDI awareness centres in the Member States and EFTA countries have contributed to heightening the awareness of EDI in Europe. In the business community, 23% of a randomly-selected sample of businesses across Europe had at least some familiarity with the TEDIS programme. Approximately 80% of respondents (including both users and non-users of EDI) were more familiar with EDI than five years ago. TEDIS support for the Western European EDIFACT Board (WEEB), for Message Development Groups and for migration projects made a contribution to the recognition of EDIFACT as the global trading standard. Approximately 200 messages were developed over the period of the programme, covering all aspects of business.
5. TEDIS supported initiatives in the telecommunications area, such as interconnection and EDI registration. Actions were focused on the links between EDI and ISDN. Network providers commented that their level of EDI-related business had increased by about 25% annually in the past five years. However, the full benefits are likely to materialise only in the medium to long term. Legal issues that need scrutiny for the development of cross-border EDI were addressed, and means of providing solutions were developed, such as a Commission recommendation relating to the legal aspects of EDI including a European Model EDI Agreement.² A study (EDICON Consolidation Study) on legal harmonisation adopted a minimal approach to new legislation in this area, citing the principles of subsidiarity and the difficulty of legislating in an area of ever-changing technology. Attention was given to the needs of open, multi-service EDI environments and to new areas of EDI. Research into security issues was undertaken which led to field trial projects using international security standards. Inter-sectoral projects promoted cross-border and cross-industry initiatives and helped to develop business partnerships.
6. Approximately 75% of project activities are continuing, even though TEDIS funding is no longer available; and 29% of a sample of consortia specifically formed to bid for TEDIS work continued to collaborate even after their bid for TEDIS support had been rejected. EDI standards are closely intertwined with business processes, and agreement on the format and use of EDI between organisations and within and among sectors tends to harmonise data flows in the Union. This acts to remove barriers which prevent organisations from communicating effectively, and to integrate European organizations.

IV. SUMMARY OF THE ASSESSMENT

7. The programme scope was considered by the assessors to be ambitious and broad, reflecting a strategy of pursuing a number of related initiatives on several fronts.

² 94/820/EC of 19.10.1994 (OJ 338/98 of 28.12.94)

The task areas were considered appropriate to the need at the time of the programme's creation. The objectives of the programme as a whole provided for flexibility giving valuable adaptability to the programme and enabling its activities to change with new political, technological and market circumstances. However, it also made effective project management more challenging. In general, the programme was considered to be well-managed. The approach adopted provided a framework for a good mix of practical, implementation-type projects and research-based studies.

8. Certain areas of good practice were identified. In *project selection*, bidders had non-technical specifications, and received guidance on the suggested content of their proposals so as to match the evaluation criteria; and mixed skills (academic, industrial, technical) were used in the evaluation panels, who were encouraged to make suggestions about the evaluation process. In *monitoring and evaluation*, the use of innovative information technology from the start of the programme made it possible for project officers to have access to information about each others' projects so as to promote cross-fertilisation, and also acted as a useful monitoring and dissemination tool. In *project conclusion and dissemination*, link contractors inside and outside the programme sought to involve business intermediaries such as trade associations so as to maximise dissemination. Contractors were encouraged to produce a brief summary setting out the key results of their project for widespread dissemination to non-technical readers.
9. However, areas are identified in which improvement could have been made. *Tighter monitoring and evaluation of projects* would have ensured that projects were proceeding satisfactorily, and that the quality of output would be adequate. Project officers could have been supported by evaluators and members of the CCT to provide technical review. It would have been useful better to identify who the "client" of the project was, to ensure that activities were better focused and appropriate reviews were made. *Wider dissemination of project outputs* to others outside the programme or involved in other programme areas was recommended.
10. Three ideas for further consideration were recommended by the evaluators, with the aim of building on the achievements of TEDIS, and tackling remaining barriers to the adoption of EDI. The promotion of efficient transfer of data between the public and private sectors may complement the IDA programme, if appropriate, and promote greater administrative and economic efficiency; the competitiveness of SMEs should be promoted through focused assistance, carefully targeted at firms capable of gaining added value from the introduction of technology; and the barriers that continue to hinder the take-up of pan-European EDI should be tackled. The focus should be on legal, standardization and security issues.

V. THE COMMISSION'S POSITION ON THE EVALUATION REPORT

The Commission welcomes the results of the evaluation report, since it confirms that TEDIS was above all a well-designed and managed programme with a significant impact on the awareness and use of EDI in Europe. The Commission

admits that areas exist where improvements could have been made, as indicated by the evaluators, in particular:

11. *Lack of focus:* The scope of the programme was ambitious, attempting to cope with a wide sector on a relatively restricted budget. Although the areas selected were appropriate for action, owing to the insufficiency of the financial instruments it was feasible neither to explore specific priorities in depth, nor to achieve highly visible results.

SMEs have not been the focus of the attention originally foreseen by the Council Decision. The magnitude of investment needed for EDI systems makes them too expensive for European SMEs. The Commission is persuaded that additional measures should be taken to catalyse the uptake of technology by SMEs.
12. *Lack of critical mass:* In its effort to cover as wide a market spectrum as possible, TEDIS tackled the needs of various user groups by promoting the development of some 200 EDI messages for business transactions, and migration from proprietary systems to "standard profiles". A lot of small projects were launched in different directions and many ideas were not fully assimilated or exploited. Discrepancies in business models and in data flows between sectors led to fragmented development of software systems for EDI, inhibiting the development of the "critical mass" required for the widespread adoption of best practices. Thus, owing to a failure to create economies of scale, the IT industry was not sufficiently inspired by the market to develop "off-the-shelf", cost-effective and commercially viable software solutions.
13. *Insufficient cross-fertilisation:* An efficient cross-fertilisation mechanism was not easy to set up due to the broad scope and the large number of projects in the programme, although this could have identified areas of commonality between projects addressing different market niches and could have led to unique solutions. Moreover, the business world is an ever-evolving environment, and there was remarkable technological growth which favoured the emergence of innovative solutions, which were not sufficiently taken into consideration. Closer synergy with RTD projects, careful screening of technology progresses and regular review of RTD work programmes would have made it possible to adapt and focus technology to market needs.
14. The programme had an impact in stimulating the development of standardised solutions for EDI, preparing the legal framework for electronic business transactions, coping with security issues, promoting the wider use of EDI in Europe, through awareness actions, and through favouring international cooperation. In particular the outcome of the international cooperation aspects of the TEDIS programme has contributed to the definition of the Commission policy in electronic commerce in the G7 project "A global marketplace for SMEs", the CEC-EU Information Society Forum, and the Mediterranean Information Society action plan.
15. The Western European EDIFACT Board (WEEB), the secretariat of which was initially supported as part of the TEDIS programme, was transferred from the Commission to the European Standardization Organization CEN in June 1995 and provided the basis for the creation of the European Board for EDI standards

(EBES). EBES supports and implements standardization and projects related to EDI and electronic commerce.

16. However, it was considered that the programme could have had an even stronger impact on the European market if it had been better targeted to analysis in depth; if it had taken appropriate action to reinforce fewer but more specific, well-defined areas of high priority; if it had been sufficiently funded to stimulate the creation of a critical mass of EDI users, and thus of a self-sustainable EDI current in the market; and if it had been better linked to RTD initiatives, both to focus RTD policy and actions to match emerging market needs and to fully exploit and spread its results into the European marketplace.

VI. FUTURE ACTIONS

17. The Commission gave further consideration to the recommendations of the Report within the framework for electronic commerce, which is critical to Europe's industrial competitiveness in the global environment and to the creation of employment. Driven by the forces of globalization and information technology, electronic commerce is already leading to structural changes in industrial and service sectors, and is therefore considered to be a cornerstone of industrial policy in the information society.
18. Electronic commerce involves an interplay of technological, standardization and legal issues. The Commission has recognised this and is aligning its instruments and activities accordingly. It has already adopted a Framework Communication to the Council, the Parliament, the Economic and Social Committee and the Committee of the Regions, entitled "A European Initiative in Electronic Commerce"³. The key elements of this European Initiative comprise:
- The facilitation of the access to the global marketplace, including infrastructures, technologies and services, ensuring global interoperability in a competitive environment;
 - The adaptation of research and development work plans in information and communication technology so as to focus them on electronic commerce market needs to ensure wide availability and ease of use of key technologies and systems;
 - The creation of a coherent regulatory framework for electronic commerce, covering single market questions, copyright, digital signatures, secure electronic payments, data security, consumer protection, protection of privacy, and commercial communications;
 - The encouragement of European standards and published applications for electronic commerce;
 - The promotion of the use of the Euro in electronic commerce;
 - The promotion of a favourable business environment which will reinforce awareness and confidence in electronic commerce and will encourage the large scale dissemination of best practice;
 - The pursuit of international dialogue, involving government and industry, in order to achieve global consensus.
19. In this context, the issue of standardization is of particular importance, as new concepts and needs are emerging calling for interoperable technical solutions.

³ COM (97) 157

Examples are to be found in the area of "light-EDI", schemes for the identification, business registration and certification of electronic commerce partners, directories, and developments concerning "trusted third parties".

20. As part of the European Initiative in Electronic Commerce, as also announced in the Communication to the Council and the Parliament on "Standardisation and the Global Information Society; the European approach" and following the resolutions of the Industry Council, the Commission is currently preparing a Report on Standardization for Electronic Commerce. This Report will analyse the position of standards and specifications in electronic commerce, investigate the existence of standards-related obstacles to the creation of new ICT-based services, in particular electronic commerce, will identify the major interoperability gaps, and will recommend areas for further action.
21. The Commission will also address the recommendation to build upon the results of TEDIS by promoting the efficient exchange of information between the private and public sectors. A Communication for a second phase of the IDA programme, currently being prepared, will propose, among other actions, that the scope of the IDA programme be expanded, if appropriate, to include the public-private interface and that the achievements of IDA during its first phase shall serve as a basis for improving the exchange of information between administrations and industry.

VII. CONCLUSION

The Commission calls upon the Council and the Parliament to take note of this Communication, and in particular of the achievements of the TEDIS Programme that it describes.

ISSN 0254-1475

COM(97) 335 final

DOCUMENTS

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15 02

Catalogue number : CB-CO-97-328-EN-C

ISBN 92-78-21861-8

Office for Official Publications of the European Communities

L-2985 Luxembourg