COMMISSION OF THE EUROPEAN COMMUNITIES

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ANNUAL REPORT BY THE COMMISSION

TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

on the setting up of the CADDIA computerized telecommunications systems and the implementation of the long-term development programme

1 July 1987 to 30 June 1988

EXPLANATORY MEMORANDUM

1. The CADDIA* programme and activities derive from Council Decision 85/214/EEC of 26 March 1985 concerning the coordination of the activities of the Member States and the Commission relating to the implementation of a long-term programme for the use of telematics for Community information systems concerned with imports/exports and the management and financial control of agricultural market organizations.

2. The long-term CADDIA development programme has been prepared, updated and approved by the CADDIA Steering Committee, formed under the Council Decision referred to above.

3. This report, which is expressly provided for in Article 4 of said decision, describes the various activities and operational applications either under development or planned up to 1993 and covers the period (1 July 1987 to 30 June 1988) of the work of the Committee which met for the first time in October 1985.

4. The initial period of validity laid down in Article 5 of decision 85/214/EEC and Article 6 of decision 86/23/EEC has been extended by five years by Council Decision 87/288/EEC of 1 June 1987.

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*Cooperation in the Automation of Data and Documentation for Imports/exports and Agriculture.

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ANNUAL REPORT ON THE CADDIA PROGRAMME

for the period 1 July 1987 to 30 June 1988

SUMMARY

The CADDIA programme concerns the coordination of the activities of the Member States and the Commission for the implementation of a long-term programme on the use of computerized telecommunications in Community information systems on imports and exports, on the management and financial control of the agricultural market organizations and on the collection and dissemination of statistical data on Community trade.

The CADDIA programme was set up by the Council Decision of 26 March 1985 for an initial period of two years.

That Decision provided for the creation of a Steering Committee made up of representatives of the Member States and the Commission officials responsible for the sectors concerned. The Committee is chaired by the Commission and is responsible for drawing up and, where appropriate, updating the CADDIA development programme, as the case may be, and for ensuring that work is carried out in accordance with the established programme.
At the end of the initial two-year period, the Council decided to extend the CADDIA programme for a further five years.

This third annual report covers the period from 1 July 1987 to 30 June 1988, during which the CADDIA Steering Committee met twice, on 24-25 November 1987 and on 4 May 1988.

The Steering Committee was kept regularly informed of the status of the sectoral and joint work scheduled in the work programme and approved the continuation of this work.

In the customs sector, where the various aspects of the work programme are brought together in the CD project, work continued on the definition of user requirements for the import sub-system, the improvement of the TARIC database, the TARIC interface, the development of standard messages, the completion of the initial phases of pilot projects and the assessment of legal problems involved in electronic data exchange in the field of customs administration.

The agricultural sector concentrated in particular on the extension of the IDES (Interactive Data Entry System) project involving electronic data acquisition from national administrations, and the electronic transmission of data on MCAS (monetary compensatory amounts) which has been operational since 1 January 1988.

Adaptation of the AMIS system to the Combined Nomenclature, derived from the Harmonized Commodity Description System, was completed.
The programming of the FIS project was completed and the application is now entering the trial stage.

As regards the EAGGF, various developments are in progress in the EAGGF Guarantee Section concerning the preparation of budget forecasts, administration of expenditure and accounting, and clearance of accounts.

In the statistical sector, work continued on all the projects in the general fields of infrastructure, agricultural and external trade statistics. The infrastructure projects concern the electronic transmission of data, the standardization of the production and distribution of statistical reports and the setting up of a collection centre for statistical data. Practical results were achieved in the field of external trade statistics, in particular with regard to improved quality and better use of statistical data and improved user access to databases.
As regards agricultural statistics, developments were made in the fields of agricultural production, agricultural structures and agricultural income forecasting.

The pilot projects in the field of teletransmission were extended in some sectors, while in others the setting up of data interchange systems with the national partners highlighted a number of problems related to the establishment of the necessary electronics infrastructure in the Member States.

Considerable progress was made on message definition in accordance with electronic data interchange standards, primarily in the customs sector.

Finally, at the CADDIA Steering Committee meeting of 4 May 1988, the Commission suggested the launching of a strategic study which would set out and adapt the objectives and activities of the CADDIA programme in preparation for the completion of the internal market by the end of 1992.

The aim of such an analysis is to review the objectives of the programme and to determine the strategy and priority activities, taking into account not only the achievements and experience obtained, but also the new factors which have emerged since the beginning of the CADDIA programme.

The representatives of the Member States were in favour of the study and agreed to assist with the review of the CADDIA programme which is to be undertaken by the Steering Committee in 1989.

The CADDIA Steering Committee and the Commission departments consider it particularly important that the work undertaken under the CADDIA programme should be geared to the Community's objectives for 1992 and, in particular, facilitate the exchange of information in a Community without internal frontiers.

1. INTRODUCTION AND BACKGROUND

1.1. Council Decision 82/607/EEC of 28 July 1982 (OJ N°L 247, 23/8/82, p . 25) provided for Member States to coordinate with the Commission a series of preparatory activities with a view to analysing needs, feasibility, costs and benefits of a concerted ten-year programme for the use of computerized telecommunications systems in the areas covered by CADDIA.

1.2. A report and proposals were presented to the Council and the European Parliament by a preliminary task force (PTF) composed of representatives of the Member States and the Commission.

1.3. The conclusions and recommendations of the PTF, drawn up late in 1983, served as a basis for the preparation of the communication from the Commission to the Council of 13 March 1984 (COM(84)119 final) and the proposal for a Council Decision (in the same document).

1.4. The CADDIA (*)programme and its activities arise out of the Council Decision of 26 March 1985.
This decision requires the Commission to report to Parliament and the Council once a year on the setting-up of the CADDIA computerized telecommunications systems and on the implementation of the long-term development programme. That is the purpose of this third report covering the CADDIA Steering Committee's third year of work (the first and second annual reports were sent to Parliament in February 1987, ref.COM(87) 42 and May 1988, ref. COM(88) 242 respectively).

1.5. The CADDIA long-term development programme was drafted and approved by the CADDIA Steering Committee set up by the above-mentioned Council Decision.

1.6. On 1 June 1987 the Council (0J L 145/86 of 5 June 1987) took the decision to extend the initial period for five years.

(*) Cooperation in Automation of Data and Documentation for Imports/exports and Agriculture.

2. GENERAL REPORT ON THE CADDIA PROGRAMME

2.1. Customs sector

During the past year, work on the CD project was continued in accordance with the objectives set out in the previous CADDIA report. The principal activities carried out between 1 July 1987 and 30 June 1988 were as follows :

- continuation of the work on user requirements under the import subsystem;
- drawing up of the Regulation on the Combined Nomenclature and publication of TARIC for 1988;
- improvement of the TARIC database for the creation and transmission of printout to Member States;
- specification of an electronic mail system for the transmission of tables of additional TARIC codes;
- specification of computerized error detection procedures for the TARIC interface;
- definition of a glossary of data elements for electronic data interchange;
- continuation of the development of EDIFACT customs messages;
- completion of the initial stages of pilot projects (Urgent Data, SCENT);
- launching and initial evaluation of the preliminary study on legal problems;
- cooperation with EFTA on subjects of mutual interest;
- participation in numerous discussions on the requirements for 1992.

In 1988/89, the work plan for the CD project includes continuation and finalization, as appropriate, of activities already undertaken and the launching of work in the following fields :

- specification of a pilot project for the management of GSP quotas;
- transmission of urgent data structured according to the EDIFACT standard;
- specification of an operational SCENT system;
- implementation of electronic data transmission in conjunction with the TARIC database;
- evaluation of the final study on legal problems;

- preparation of a Commission Decision to make the EDIFACT standard compulsory in the customs sector.

2.2. Agricultural sector

The conversion of AMIS to the Combined Nomenclature derived from the Harmonized Commodity Description System was completed.

A link-up between D.G. VI's computer and its telex system has made it unnecessary to re-enter telexed data for long numerical annexes, such as the annexes for MCAs, oilseed and protein seed subsidies and sugar levies. Work on the establishment of other computerized numerical annexes continues. The Office for Publications has been contacted with a view to replacing the telex transmission of annexes with a system of file transfers between computers.

The computerized data transmission system for MCAs which has been in operation since the beginning of January has been a success, with 20 correspondents in the Member States (ministries of agriculture, intervention agencies, marketing boards, central customs administrations). This achievement is an incentive to push ahead with work on the transmission of other numerical annexes published in the Official Journal. It is interesting to see the 'knock-on' effect this has had in the Member States : in Spain MCAs are on videotex and Ireland makes use of computerized retransmission by telecopy.

Notification by the Member States of the weekly prices for sheepmeat on the main markets is done by IDES. Notification of prices for cereals, beef and veal, and fruit and vegetables in particular, which account for a substantial volume, is being examined.

The programming of the FIS project is completed and the project is now entering its trial phase.

With regard to the EAGGF, the "monetary impact" section of the FBF project is completed. The systems analysis of the processing of the forecasts for the various market organizations has been completed and the system development phase has begun. In the case of FAUDIT, the systems analysis of the processing of the monthly and annual returns from the departments of Member States public concerning stocks has been completed. The AGREX system has been operational since February under a "provisional twelfths" arrangement. Following the adoption of the budget in June, the normal scheme will come into operation in July. The data transfer project (formerly the AGEFT project, now integrated into the AGREX project) was submitted to the EAGGF Committee in June.

By its Decision of 28 March 1988 (88/192/EEC), the Council gave the go-ahead for the SHIFT project, which will start with a feasibility study in 1989.

2.3. Statistical sector

In the statistical sector, EUROSTAT has continued the development of general infrastructure and projects concerning external trade and

agricultural statistics relevant to the CADDIA programme. The general systems cover the following fields :

- electronic transmission of statistical data (STATEL project);
- standardization of the production and distribution of statistical reports (STRINGS project);
- collection centre for statistical data (STADIUM project).

These projects constitute an integrated whole intended to cover infrastructure requirements for statistical information interchange between EUROSTAT on the one hand and the European institutions and Member States on the other.

For external trade statistics, EUROSTAT has continued its development activities which have made possible concrete achievements in the following fields :

- compensating for missing data by a combination of forecasting methods and artificial intelligence techniques (expert systems);
- simple access to derived information calculated from external trade statistics, in particular unit-value and volume indices;
- adaptation of statistical reports and production of made-to-measure reports adapted to the profiles of targeted users;
- better use of external trade statistics through a keyword retrieval system and access to databases;
- tackling the changes to data structure, processing and procedures following the introduction of the Harmonized System.

For agricultural statistics, the development activities have been concentrated mainly on the following :

- establishment of a system to support the sectoral production and income model for Community agriculture (SPEL project);
- establishment fo an agriculture structure database (EUROFARM project);
- establishment of a system to support a crop and yield forecasting model.

2.4. Joint projects

D.G. XIII is responsible for the coordination of the CADDIA programme, which chiefly involves :

- budget management, i.e. the allocation and control of resources granted to sectoral projects;

- administration of expert's contracts, and

- supervision of sectoral projects.

The coordination of CADDIA is also aimed at developing the technological options necessary for the harmonized implementation of electronic data interchange.
Various activities have been undertaken in this context :

- Firstly, pilot trials carried out by the sectors have revealed numerous problems related to the use of national packet-switching networks, their compatibility and interconnectability.
  A list of these problems has been drawn up and submitted to the national representatives of the telecommunications sector meeting within the SOGT (Senior Officials Group for Telecommunications).

- With regard to the transmission times for documents (agendas, reports of meetings, working papers), the decision was taken to invite tenders for a preliminary analysis, setting out the requirements and resources available in the CADDIA sectors to the Commission and in the Member States, and the current possibilities for implementing an electronic document transfer system between the Commission and the Member States.

- As regards the introduction of the EDIFACT standard, the product INTERBRIDGE - version 4, which operates on MS-DOS microcomputer, is currently being assessed by the customs and statistical sectors.

- Other coordination activities include close cooperation with the INSIS programme with a view to creating an inter-institutional electronics infrastructure, and with the TEDIS programme on the standardization of messages and, more particularly, private and public sector cooperation in this field.

Finally, a booklet on CADDIA is being compiled. This will be aimed at the general public and will describe the practical achievements in the various sectors.

2.4.1. Pilot trials

- The CADDIA sectors (customs, agriculture and statistics) have carried out an evaluation of the advantages of electronic data interchange.

- The various experiments or pilot projects have been extended to other applications or have undergone certain improvements. These are in particular :

  SCENT (System Customs Enforcement Network) (customs sector) : Exchange of urgent messages concerning fraudulent evasion of customs and agricultural regulations and drug traffic.

  IDES (Interactive Data Entry System) (agricultural sector) :

Notification of animal diseases and communication of market prices (pigmeat and sheepmeat).

STATEL (STAtistics TELetransmission) (statistics sector) :
The data exchanged concern external trade statistics and more particularly correction records.

Equipment for the trials was loaned to the partner bodies in each sector in the Member States. The Commission selected hardware and software recommended by the Commission's data-processing policy. National packet-switching networks were chosen to transmit the information. The solutions adopted by the sectors at present are provisional and in no way interfere with the eventual electronics infrastructure. The aim of Commission policy and the CADDIA programme coordination policy is to achieve the widest possible adoption of standards in force in the field of telecommunications.

With regard to the transfer of data between computer systems, the aim is to use products based on the OSI (Open Systems Interconnection) model and, more particularly, products conforming to the FTAM standard or the CCITT's X.400 recommendations.

2.4.2. Standardization of data interchange

During the period under review three major events took place :

- In September 1987, at the meeting of the ISO TC 154 group in Berlin, the EDIFACT rules of syntax were adopted as an international standard (IS 9735). This standard and the standard relating to UNTDED (IS7372) were given the status of European standards by CEN-CENELEC.

- In October 1987 the TEDIS programme was approved. The aim of this programme is to coordinate initiatives for commercial data interchange at Community level.

- At the beginning of 1988 the EDIFACT Board was set up. In brief, the aim of this committee is to coordinate sectoral message developments within the various working groups.
  The Commission, via the TEDIS programme, will act as secretariat for the committee.

Technical assistance will also be given towards the creation of a reference data bank for data elements, segments and standardized messages and also those under development. The database will be available on the Commission's service bureau ECHO before the end of 1988.

It is interesting to note that the EFTA countries have asked to contribute financially to the activities of the TEDIS programme.

There is close cooperation with North America and the countries of Eastern Europe through the EDIFACT Board.

Important CADDIA activities being undertaken in this field include :

- SAD (Single Administrative Document) data elements

  A final version of the glossary of SAD data elements has been produced and 36 elements of Community data have been incorporated into the UNTDED directory.
  This will greatly facilitate the conception and adoption of standard messages comprising customs data elements.

- Standard messages

- The MD3 group of the EDIFACT Board for Western Europe is now operational. This group, which is responsible for the development of customs messages and other official messages, is chaired by the person in charge of the CD project. Standard messages created by the working group for customs messages (SMWG) will have to be submitted to MD3 to check conformity.

- The first version of the SAD standard message was submitted to the SMWG working group at the end of October 1987.

- A draft table on the use of optional SAD data elements by the Member States and EFTA countries is in circulation.

3. ORGANIZATION AND RESOURCES

3.1. Internal organization

3.1.1. Internal coordination

The CADDIA programme is implemented in the Commission by four departments :

- DG XXI Directorate for External Questions, for the CD project
- DG VI Directorate for General Matters, for the agricultural projects
- SOEC Directorate for the Processing and Dissemination of Statistical Information, for the statistical projects
- DG XIII Directorate for Telecommunications, for the joint projects and technical coordination and administration of projects.

The CPIG (CADDIA Policy Interservice Group), consisting of the Director for Telecommunications of DG XIII, who is the Chairman, the Director for External tariff Questions of DG XXI, the Director for Informatics of DG IX, the Director for General Matters of DG VI and the Director for the Processing and Dissemination of Statistical Information of the SOEC, supervises the coordination of the various Commission departments involved in CADDIA. The work is done by a team consisting at the present time of the head of the CADDIA sector and one permanent member of staff. In addition to them, two experts have been working with the central team, in particular in the field of standardization of data interchange.

DG XIII's administrative unit is responsible for keeping administrative files on the experts recruited for the various sectoral projects.

Apart from administrative and budget management, the CADDIA sector is responsible for liaison between and coordination of sectoral projects, the implementation of joint projects and any technical assistance that may be necessary under these projects.

3.1.2. Human resources

The present dearth of posts for officials at the Commission has obliged it to turn to private-sector contractors in order to cope with all the CADDIA work. As a guide, the breakdown of resources was as follows in 1987/1988 :

	customs	agriculture	statistics	central team
Officials	5	10	5.5	2
External staff	17	18	16	2

Most of this staff is needed only during the time required to develop specific applications. However, provision must be made for some posts for officials to maintain and manage the systems set up under the CADDIA project.

3.2. Expenditure

The expenditure committed during 1987 and planned for 1988 is set out in the table below. It is financed from budget item B 7704.

Sector	1988(planned) 1000 ECUS	%	1987 1000 ECUS	%
Customs	1252	33	904	22
Agriculture	856	22	1349	32
Statistics	1083	28	1403	34
Joint projects	440	12	384	9
Management Expenses	190	5	140	3
TOTAL COMMITTED	3821	100	4180	100
BUDGET ALLOCATED	4000		3750	
CARRIED OVER FROM PREVIOUS YEAR	-270		160	
AVAILABLE	3730		3910	
BALANCE AT END OF YEAR	-91		-270	

This expenditure can be broken down into the following basic items for 1988 :

Remuneration of experts	83%
Joint projects/studies	6%
Administrative back-up for experts	3%
Management expenditure (cost of meetings and contract administration)	3%
Purchase/leasing of computer equipment	4%
Cost of using data transmission networks	1%

4. CONCLUSION

CADDIA activities have therefore continued in accordance with the objectives set out in the previous report.

The main factor during the period under review was the Commission's decision, in agreement with the Member States, to initiate a study on the strategic guidelines of the CADDIA programme, in order to review the objectives and priority activities which must be undertaken in the run-up to the large internal market in 1992.

ANNEX 1

1. DETAILED PROGRAMME OF THE CUSTOMS SECTOR

1.1. CD Coordination

a) Work Progress

In preparing its original CD Project proposals, and in revising them in the light of the subsequent decision to create a Single Market by the end of 1992, the Commission services have, hitherto, looked at the question of computerisation from an overall Community point of view. They have taken the view that their main task was to try to define the essential Community requirements whilst leaving each Member State to develop its own systems.

Whilst this approach still remains valid, questions raised by Member States experts have led the Commission services to consider the question of customs computerisation from the point of view of the Member States and to try to specify the implications of the Single Market on the development of national customs computer systems.

A recurring theme across the whole field is the need for the rationalisation and harmonisation of the application of Community procedures, and the adoption of common standards - international ones where possible. This also implies a planned migration from existing standards to the new ones. The development of an efficient communications network is also seen as an essential 1992 requirement. The other implications for the Member States are outlined below in relation to the specific task.

In considering the various system developments envisaged by the Commission, it should be borne in mind that new procedures for the collection of intra-Community trade statistics and VAT control could affect the operation and future development of customs computer systems. These developments will therefore have to be taken into account in the planning of customs systems.

b) Medium Term Prospects

- Work in the customs sector has been constrained by a shortage of customs experts with experience of computerised customs procedures who can be attracted to work on the project. The number of people with relevant experience is extremely limited and the Commission has to compete with Member States which have their own computer projects in this area.

- This, in conjunction with a restricted budget, has led to the concentration of activities into the areas of highest priority

- The following priorities are therefore being pursued.

1.2. Intra-Community Trade Sub-system

a) Work Progress

After 1992, although there will be no controls at internal frontiers, a system will still be needed to control non-Community goods moving between Member States as well as Community goods and non-Community goods transitting EFTA, and EFTA goods transitting the Community. These requirements have been the subject of a number of discussions with Commission procedural experts as well as with EFTA delegates and with trade bodies.

b) Medium Term Prospects

- Two complementary approaches are currently being considered to meet the new requirements.

- The first involves the extension of simplified procedures for controlling movements between authorised traders operating computerised stock accounting systems. This concept would require the customs authorities to adopt a systems audit, rather than a transaction-based approach to control. The specification of the requirements for this system have now been completed. It is envisaged that a pilot project will be carried out to test the proposals which are at present under discussion with the procedural experts.

- For control of movements taking place between other traders a number of options are under examination.

- The adoption of system audit concepts implies that some national customs officials would have to be given training in system audit techniques to enable them to be able to approve computer systems and audit them. As the pilot project develops we will be seeking assistance from those Member States with the relevant experience.

1.3. Import & Export Sub-systems

a) Work Progress

In order to ensure an adequate system of control of third country imports and to achieve equality of treatment in all Member States, the Commission is preparing high level specifications of Community requirements for declaration processing systems, of the requirements for harmonised simplified procedures, and of the accounting and control procedures associated with each of these.
So far draft User Requirements have been produced for the following subjects :

- Quotas and G.S.P.
- End use relief
- Accounting and payment of duties
- Calculations of charges
- Repayment and remission of duties
- Post clearance recovery
- Conversion routines
- Duty conditional relief

These are now under active consideration in the procedural areas prior to their translation and circulation.

b) Medium Term Prospects

- Continue work on the User Requirements for the "Import Sub-System" bearing in mind the implications of the White Paper. Resource constraints have delayed consideration of the "Export Sub-System".

- In 1992, the present system of national quantitative restrictions and national tariff quota shares will come to an end. It is, therefore, necessary to develop a system for controlling these goods on a Community wide basis. This will entail the development of a centralised Commission database and the specification of an interface with Member States systems.

- Work is therefore currently concentrated on the management of tariff quotas the scope of which has been expanded to include Quantitative Restrictions. Visits have been made to five Member States to examine the existing procedures and to ascertain present and planned levels of computerisation.

- The efficiency of the Community system will be dependent upon the rapid collection and transmission of data concerning imports subject to quantitative restrictions or tariff quotas to the Commission system, and the rapid processing and transmission by Member States of information received from the Commission. This will necessitate the development of a communications network.

- An overall study is currently being undertaken into Community network requirements. The implications of these proposals for the Customs areas of the Commission and the Member States are being evaluated. All the present requirements and those which are anticipated post-1992 are being examined.

- It is envisaged that a pilot project for tariff quota management will be set up in the near future to evaluate the feasibility of a centralised system before its final adoption.

1.4. Pilot Projects

a) Work Progress

Urgent Data

The first phase of the project included setting up a computer link between U.K. Customs and DG-XXI with the intention of evaluating direct transmission links with Member States. This phase was completed with the successful transmission of messages conforming to TDI standards.

SCENT

The project included the setting up of a computer network to permit the electronic transfer of urgent messages relating to fraud control.

A number of problems concerning the provision of equipment and the "lead time" for PTTs in Member States to supply the appropriate telecommunication links has caused considerable delays in the implementation of the total system. It was also discovered that the national level of technical expertise to support the users varied considerably. To overcome this, additional resource was required from DG-XXI. However, eight Member States are now operational with two others imminent. Development continues, and, taking into consideration comments received from Member States, a revised version of SCENT software has been developed and installed at the operational sites. This incorporates changes proposed by the users and allows access to other databases, e.g. Lloyds Shipping Register.
First successes in using the system to combat fraud have been recorded.

b) Medium Term Prospects

Urgent Data

- The second phase of this project involves the transmission of data using EDIFACT standards and the INTERBRIDGE package. It has also been decided to develop and test error recovery routines as part of the trial to gain experience in this area.

- The new INTERBRIDGE software has been delivered and is currently being evaluated.

SCENT

- Work is under way on the evaluation of the project from both technical and user viewpoints. Following this evaluation the details of longer term operational system requirements will be specified.

1.5. Trader Interface

a) Work Progress

Budgetary restrictions have minimised the resources allocated to this area. However, dialogue continues with trade bodies as to the most suitable areas for further consideration.

b) Medium Term Prospects

- This work area cannot be divorced from the work being carried out in the Intra-Community Trade Sub-System and the proposals put forward there which involve greater reliance on trader systems for control purposes.

- In addition, there is considerable overlap into the area of standards, message development and coding - necessary pre-requisites for interfacing with trade systems.

- No specific activity is envisaged for this area during the forthcoming period but the work being done on standards will provide a good basis for the development of trader interfaces.

1.6. COMMISSION SYSTEMS

1.6.1. TARIC Management

a) Work Progress

In accordance with the outlined objectives for 1987-88, the Combined Nomenclature Regulation and TARIC for 1988 were produced to their deadlines.

Enhancements have been made to the database system; the data captured is extracted and printed out as a listing for verification purposes; following any changes arising from the verification a new print listing, in the relevant Member State language, is produced for delivery to the customs administration in each Member State; this provisional arrangement will continue pending the introduction of the TARIC Interface System in September 1989.

The database is also being used to extract, on magnetic tape, the data required for the annual publication of the Combined Nomenclature Regulation and TARIC.

b) Medium Term Prospects

- Introduce changes to the database to permit the electronic transmission of data requested by customs administrations of the Member States.

- Improve facilities in the database to allow other Commission services secure access to specific information.

- Introduce electronic data transfers to replace magnetic tapes (e.g. to the Office of Official Publications).

- As we move towards 1992 it is expected that the TARIC database will be expanded to include additional tariff related data such as more quantitative restrictions requirements and tariff classification data. This extra data will then be capable of being transmitted through the interface system.

1.6.2. TARIC Interface

a) Work Progress

The absence of standard software facilities is a major impediment to the implementation of an electronic transfer system. Evaluation of the following software packages continues, although further development will be required by the relevant software suppliers before any of them could satisfy the needs of all Member States:

- INTERBRIDGE (EDIFACT version)

- KERMIT }
  } File transfer facilities
- MFTS }

An electronic mail facility has been produced for the transmission to Member States of additional code tables.

Computer based Fault Reporting Procedures have been specified for development.

For technical reasons a delay has occurred in the development of a Data Dictionary containing the data elements for the TARIC interface transmission files in English, French and German.

File, record and data item specifications have been produced and issued to Member States for Nomenclature and Measures files. Also a new file for Regulations has been introduced, and specifications for it are being prepared.

The proposed Interface System has been discussed at meetings of the TARIC Interface Working Group in Brussels as well as with individual Member States, and the work to achieve implementation in September 1989 has already commenced.

A significant amount of work has also been undertaken on the database system, to satisfy better the needs of the Member States.

b) Medium Term Prospects

- An electronic transmission system will be developed for implementation in September 1989.

- Trials of various file transfer facilities will commence with some Member States in the autumn of 1988, with a view to transmitting electronically the printed listing, currently sent by post, early in 1989.

1.6.3. TARIC (General)

The lack of suitable software tools continues to present difficulties, but it is hoped that with the assistance of DG IX and DG XIII these will be resolved during the early part of 1989.

In the very near future, there is going to be a loss of experienced programming staff. Recruitment of replacement staff is already underway but successful implementation of the required changes to the system is dependent on suitable resources being recruited in time.

1.6.4. Customs Information System. Phase 1 - Inward Processing

a) Work Progress

It was reported last year that the basic computer system had been developed and implemented. However, following the changes on 1.1.88, particularly the introduction of the Harmonised System, the system requirement from the users has undergone some major changes.

b) Medium Term Prospects

- Discussions continue between Member States and the Commission concerning the present requirements and as a result the proposed on-line access has not been implemented. A revised system, taking into account the changed requirements, is now operational.

1.7. Data Interchange Standards

a) Work Progress

The SAD data elements submitted to the UN/ECE for inclusion in the UNTDED (UN Trade Data Element Directory) were accepted in November 1987.

Following comments received from Member States, a revised version of the glossary of data elements is now in an advanced state of production.

Member States have informed the Commission of the use made of SAD optional boxes and a matrix has been drawn up. This is in the process of verification by the Member States before the final version is published.

Work continued on a number of EDIFACT Customs messages :

i) an enhancement of the invoice message to include Customs requirements

ii) stripping of this message to a subset of the minimum information required for purely Customs purposes

iii) stand alone Customs declaration

iv) joint development with USA Customs using the stand alone declaration as a basis to develop a message for use in Europe and the USA to form a draft United Nations Standard Message. This UNSM will be given a 3 month trial and, following successful completion and any necessary amendments, the message will be submitted for UNECE approval as a standard UNSM. Interest in the message has been expressed by Canada, Australia, New Zealand and Japan.

Work has also continued on the rationalisation of codes necessary for customs messages to operate on a Community wide basis.

b) Medium Term Prospects

- To prepare a Commission Decision to require the use of the EDIFACT standard within the Customs sector. To aid in the migration to this new standard Member States have been sent a questionnaire concerning their computer development plans. Responses to this are awaited.

- To continue work on additional Customs messages.

- To support progress towards development of a File Transfer Standard.

- To continue work on code definition.

- To provide input to the Message Development Group 3 (Customs and other official messages) of the EDIFACT BOARD.

- To publish the most recent version of the glossary.

- To publish the verified matrix.

- To evaluate the results of the message pilot project and report accordingly.

1.8. Legal Problems and Requirements

a) Work Progress

Within the CD framework, it has been established that legal problems could hinder future progress. Some examples are :

I) authentication of documents/electronic signature;

II) acceptability of computer-generated data by Courts in civil and criminal jurisdiction;

III) audit requirements: access to systems, data to be held, in what form, for how long.

A preliminary study on the existing legal situation in Member States concerning electronic data exchange was commissioned from the Vrije Universiteit Amsterdam. This study began in January 1988, a first draft report was received in mid June 1988 and it is currently under discussion with the authors.

The Commission is in contact with all relevant organisations concerned in legal questions as UNCITRAL, UNECE, CCC.

b) Medium Term Prospects

Finalize the study and determine the necessary follow-up action.

1.9. EFTA Co-operation

a) Work Progress

Following the initial meeting held with the EFTA countries reported last year, there has been a series of meetings. Exchanges of views on technical matters, co-operation and co-ordination, especially in the area of the SAD Standard Messages, have been very useful. At the request of the EFTA countries, meeting agendas now include reference to the TEDIS project and DG XIII are represented.

b) Medium Term Prospects

- At the meeting between EFTA Ministers and Mr. Willy de Clercq, Member of the Commission, in Tampere Finland on 15th. June 1988, the need to pursue this co-operation was stressed.

- Therefore the series of meetings and other exchanges of views will be continued and strengthened.

2. DETAILED PROGRAMME OF THE AGRICULTURAL SECTOR

2.1 AMIS (Agricultural Market Intelligence System)

(a) Purpose and description

AMIS is an integrated computer system that is operational in the nine market divisions responsible for managing the common market organizations (CMOs). AMIS also supplies basic data on the markets to the EAGGF divisions.

AMIS collects the data (see also IDES) needed for the day-to-day management of the common agricultural policy:

- producer prices on the Community's internal market;
- offer prices on the world market for imported products;
- statistics on applications for and the issue of import and export licences;
- statistics on the system for monitoring trade flows between Spain and Portugal and the other Member States (supplementary trade mechanism - STM);
- statistics on stock levels;
- consumption statistics;
- production statistics;
- statistics on agricultural expenditure under various headings (intervention buying, aids, export refunds).

AMIS also covers the management systems for export and intervention tenders for various common market organizations, and the management system for tenders relating to food aid programmes.

AMIS calculates the data used in the periodic acts published in the Official Journal of the European Communities; these data are currently telexed to the Member State departments concerned (Agriculture and Customs) (see also FIS):

- institutional prices in ECU fixed by the Council and derived prices,
- threshold prices,
- unit amounts of import levies and export refunds,
- unit amounts of Community aid.

In addition there are the data required for the management of the agrimonetary system:

- representative exchange rates or green exchange rates,

- exchange rates used for recording world market prices,

- monetary compensatory amounts.

The latter have been communicated since January 1988 by transfer from computer to computer.

At present all these data are stored in an internal database reserved for the Directorate-General for Agriculture and cannot be accessed by outsiders.

Information published in the Official Journal can, however, be consulted (GETAMI).

Mention should also be made of the utilities for managing AMIS, together with the general procedures for the selection and printing of data on various media (ARPS system).

(b) Work in progress and medium-term prospects

Besides the natural development of applications and the meeting of new information needs, development work has concentrated mainly on the creation of a decision-aid tool (AIDA project), by setting up a base, alongside the AMIS production database, for the consultation of agricultural data which is fairly coherent, is standardized and comes from a variety of sources, and facilities for access and retrieval from the same sources for data which do not appear in AIDA.

In relation to the setting up of mechanisms for stabilizing agricultural expenditure, planned in a growing number of common market organizations, such a system is intended to offer better market information for short-term analysis and medium-term forecasting.

AIDA will use the existing AMIS infrastructures, expanding and further integrating them for the end-user. Among other things, GETAMI will be brought into widespread use in order to introduce a uniform retrieval language.

On the basis of the AMIS infrastructure, the first results, in table form, will be available by September 1988. AIDA should be fully operational by the end of 1989.

2.2 FBF (EAGGF budget forecasting)

(a) Purpose and description

The FBF project is designed to provide the EAGGF division responsible for budget forecasting with a number of tools to automate the manual procedures for forecasting and preparing the EAGGF budget, which accounts for around 60% of the Community budget. In view of the current budget constraints, especially the stricter restraint on agricultural spending, the division needs a flexible system capable of monitoring expenditure trends during the year and comparing them with payments actually made, forecasting budget requirements for the year ahead, providing facilities for rapid retrieval and simulation during Council negotiations, and extrapolating general trends over a five-year period.

By processing expenditure data from AGREX, market and trade data from AMIS and the SOEC databases, and monetary and agrimonetary data from AMIS, the system will be capable of establishing:

- a draft two-year budget;
- a cyclical monthly revision based on the draft budget, by processing the most recent data available;
- comparison of the model with outturn expenditure after execution of the budget;
- simulation of the impact on expenditure of measures being negotiated in the Council;
- extrapolation of expenditure over five years for all budget items.

(b) Medium-term prospects

The part of the project covering monetary impact and forecasting of MCA expenditure has been complete and operational since April 1987. This also includes an adaptation to the Council Decisions of July 1987 concerning the mechanism for the automatic dismantling of the MCAs introduced following a realignment of the EMS currencies involved in the exchange-rate mechanism.

Systems analysis for the other budget items (COM part) was completed in June 1988.

Programming of forward estimates for the livestock products sectors has begun with the aim of introducing an operational system by the end of 1988. Programming for crop products will follow in mid 1989. Development is coordinated with the AIDA project (see AMIS).

2.3 FIS (Fast Information System)

(a) Purpose and description

Over the past two years a large number of applications have been developed by the agricultural data-processing department, DG VI/A/4, so that a large amount of agricultural data on prices, quotas, MCAs, levies, refunds, etc. is now stored in the computer of the Directorate-General for Agriculture (see AMIS).

Much of this information is of great political and commercial importance and could be of interest to the general public. It was therefore decided to develop FIS.

FIS is a project designed to set up a computer infrastructure for horizontal utilization of the AMIS database and other databases useful for the management of the CAP so as to provide tables which can be called up on a TTY terminal either by using a menu or by direct access.

FIS will be used to supply information to the Directorate-General in the form of regularly updated consolidated tables and to enable national departments to consult consolidated information or numerical annexes to recurrent acts concerning the fixing of levies, refunds, monetary compensatory amounts, countervailing charges and other elements of the CAP.

FIS is an application that will give outsiders user-friendly access to agricultural data.

To consult the data, a user need merely install an inexpensive terminal and connect up to the DG VI computer via the international packet-switched network.

In this system special attention will be paid to the following points:

- user-friendliness,

- availability,

- data confidentiality,

- access authorization,

- regular updating of the information,

- user training.

(b) Description of main functions

The content of FIS information will be displayed on the user's terminal in page form.

New users are guided though the system by menus, but the experienced user can use a command language.

The FIS pages can be selected by three modes:

- by their number,

- by a key associated with their content,

- by a hierarchical menu system.

Additional facilities enable users:

- to define an interrogation protocol,

- to print out the screen contents,

- to print all key words,

- to consult selected pages.

(c) Status and medium-term prospects

The analysis was completed in July 1987 and the full computer development finished in July 1988.

The application will be launched in DG VI in the second half of 1988.

A variant of FIS, designed to communicate MCAs by access to the DG VI computer, in operation since early this year, has been a success with 20 correspondents. This result encourages further work in the field of the communication of the other numerical annexes published in the Official Journal of the European Communities (ANA project). The setting up of ANA cannot be rushed, however, and account must be taken of computer security requirements and the updating of tried and tested procedures in sensitive areas. It is interesting to note spin off in the Member States: MCAs on videotex in Spain and automated relaying by facsimile in Ireland.

2.4 SHIFT (System for Animal Health Inspection at Frontier Posts)

(a) Purpose and description

SHIFT is a project based on Directive 72/462/EEC, Articles 23 and 24 of which make Member States responsible for inspection of imported fresh meat at customs posts.

Inspection of a sample covers the following points:

- the public health certificate and conformity of the fresh meat with the stipulations on that certificate,

- the state of preservation and the presence of dirt and pathogenic agents,

- the presence of residues,

- verification that slaughter has been carried out in establishments in non-member countries approved by the Commission for that purpose,

- verification of transport conditions.

The project plays a part in the harmonization of veterinary measures for the large internal market of 1992.

(b) Status and medium-term prospects

The study carried out in 1985 at the request of the Veterinary Committee concluded that computerization would be useful for coordinating the action to taken as it would allow rapid dissemination of information between the Commission and the Member State departments involved (customs, public health).

Following the Council Decision of 28 March 1988 (88/192/EEC), a feasibility study of the computerization aspects will be carried out in the first quarter of 1989 to describe the sub-modules and establish development priorities.

2.5 IDES (Interactive Data Entry System)

(a) Purpose and description

The IDES project is designed to set up an interactive data entry system based on the use of TTY terminals complying with the X.28 communication protocol for packet-switched public data networks in the Community; this would gradually replace the telex messages sent by correspondents in the Member States containing numerical data for management of the common agricultural policy.

(b) Status and medium-term prospects

Three applications are operational. These are the notification of epizootic diseases (operational since May 1987, 13 correspondents), the weekly notification of pigmeat market prices (operational since July 1987, 11 correspondents), and the weekly notification of sheepmeat market prices (operational since 1 May 1988, 17 correspondents).

In the coming period it is planned to add daily notifications of market prices for fruit and vegetables, and weekly notifications of market prices for beef meat and cereals.

2.6 DOCED

The computing and office-automation facilities of the Commission (and the Member States) are extremely heterogeneous. A degree of integration has been achieved through the Commission's work in this field (X.25, MFTS, X.29, X.28, etc.) and with the help of CADDIA financing.

The DOCED project covers a number of infrastructure activities which make use of these tools to develop horizontal procedures allowing diversification of the products of the agricultural databases and integration and exploitation of the new potential inherent in the widening of the technological horizon and the use of new standards; improved user-friendliness of basic products and user training and assistance.

During the period covered, work concentrated on the introduction of Unix-based office systems. Some 200 officials in DG VI were trained. Electronic mail was introduced to allow documents to be exchanged within the Directorate-General and with the Cabinet responsible for Agriculture and the Commission Delegation in Geneva. Links are planned with other delegations, particularly Washington.

As regards the Member States, installation will take place as part of the study undertaken by the CADDIA central team in cooperation with INSIS.

There are also plans to set up a system based on electronic mail between the various Commission departments concerned to handle written procedures and delegation procedures.

2.7 AGREX (AGRicultural Guarantee Fund EXpenditures)

(a) Purpose and description

Community expenditure under the Guarantee Section of the EAGGF amounts to around 60% of the Community budget. Directorate-General VI manages a computerized monthly system for recording payments made and monitoring expenditure declared by the Member States for the support of agricultural markets.

In addition, since the European Council of February 1988, there has been a need for very strict monitoring of agricultural expenditure, chapter by chapter, and the setting up of an alert system in case of a deviation from forecasts.

The system has links with the budget forecasting system (see FBF) and with the agrimonetary applications (see AMIS).

(b) Status and medium-term prospects

The module for managing expenditure based on the system of provisional twelfths has been operational since February 1988. A link is established with the computer of the Directorate-General for budgets to allow the transfer of commitments and allocations between the two systems, thus speeding up the payments procedure.

Following Parliament's adoption of the 1988 budget in June, the module for normal expenditure management was brought into operation.

In order to speed up the administrative procedure for processing expenditure chargeable to the EAGGF Guarantee Section and to make more efficient use of Community funds, in 1989 Directorate-General VI will begin a project for electronic funds transfer with the paying agencies in the Member States (AFEFT project). The project was presented to the EAGGF Committee in June 1988 with a view to the designation of correspondents and definition of procedures.

2.8 FAUDIT (EAGGF auditing system)

(a) Purpose and description

The FAUDIT project is designed to provide the EAGGF division responsible for accounts clearance with a number of tools for computer processing of the data supplied by the Member States (documentation, processing of monthly and annual returns, verification). The system to be set up will also allow cross-referencing with the data contained in the AMIS and AGREX databases and in the external trade and production databases of the Statistical Office of the European Communities (see AIDA project under AMIS).

(b) Status and medium-term prospects

As part of a general survey of EAGGF requirements and an analysis of data flows to the EAGGF, a preliminary study of the FAUDIT project was completed and approved by the department concerned in 1986.

The systems analysis for the processing of Member States' monthly and annual returns is complete and has been handed over to the departments concerned for approval.

The analysis revealed the need for harmonization between the two types of returns and the processing procedures.

As a result, programming will not start until the departments have discussed their coordination problems and found a solution, probably by September 1988.

3. DETAILED PROGRAMME OF THE STATISTICAL SECTOR

3.1 The STATEL project (STAtistiques TELétransmission)

(a) Purpose and description

The STATEL project aims to build an architecture for electronic data interchange between the SOEC and partner organizations in the Member States.

The four areas of the project are:

- data transport where various technical solutions are under experimentation (X.25 network, Teletex MBP boxes, Kermit, MFTS, etc.);

- data representation and the evaluation of associated software (Interbridge), due to the need to standardize the statistical data to be exchanged between the partners;

- definition of organizational and computer procedures for automating interchange, modifying existing applications, and taking account of security constraints;

- definition of a computer architecture detailing the hardware and software configurations of the partner sites (network, protocol, etc.).

The STATEL project is designed to increase the efficiency of interchange between the partner organizations and the SOEC, by:

- reducing data transmission times,
- automating interchange procedures,
- avoiding retyping of data.

Apart from the four areas mentioned above, the STATEL project covers the setting up of pilot data transmission experiments with the Member States.

The launching of the pilot experiments will require:

- the installation of a STATEL configuration at the partner site in the Member State.

  This infrastructure must be connected to:

  1. the computer site where the data to be transmitted are located;
  2. the national packet-switching network (X.25) to transfer the data to the target STATEL configuration (Eurostat or any other partner organization);

- the introduction of data communications procedures at the level of the application for the organizational aspects, of interfaces, and of the definition of the content and form of the information to be transmitted.

(b) Status and prospects

- Data transport

The evaluation work and pilot experiments have led to the following:

. abandonment of the use of MBP boxes, which has proved expensive and difficult to automate; furthermore, the Teletex protocol has an uncertain future in the view of certain national telecommunications bodies (UK for example);
. use of file transfer software (Kermit) as an interception strategy while awaiting standard FTAM software;
. widespread use of packet-switching networks (X.25).

- Data representation

The STATEL project is promoting the use of the EDIFACT standard to represent the data interchanged in the context of the pilot experiments. This policy is hindered by the scarcity of software which supports the standard. The package Interbridge 3 has been evaluated.

- Organizational and computer procedures

Developments in the context of the pilot experiments have proved that it was possible to make fully automatic transfers between remote applications. With the present state of the configurations, the sender has to take the initiative for the transfer.

- Computer architecture

The present computer architecture comprises:

. an Olivetti M24 microcomputer equipped with two communications cards (one for local site access, one for access to the X.25 network),
. a dot-matrix printer.

The following problems arise with this type of configuration:

- In the Member States

Connection with the local site is often made by means of specific interfaces (Perch emulator, IBM 370 card) which prevent universal use and automation of the solutions proposed.

- At Eurostat

The increase in volumes of data transfered and frequencies of use due to the extension of the pilot experiments, now necessitate a study of the upgrading of the configuration. The study on the definition of a STATEL server is intended to meet these needs.

- Pilot experiments

  Initial experiments in electronic statistical data interchange conducted with various partners - the University of Bonn, the Eurostat Data Shop in Brussels, DNSCE in Toulouse, ISTAT in Rome, Statistiches Bundesamt in Wiesbaden and Customs and Excise in the United Kingdom - show that from the purely technical point of view, the results are very positive and promising; transfers take place regularly between Brussels, Bonn, Southend-on-Sea and Luxembourg. The only preconditions for technical feasibility are:

  1. The partner site must have direct access to the public network (using an NUA);
  2. There must be a local micro/mainframe connection;
  3. the partner site must be able to make international calls (using an NUI).

  The move to an operational phase and widespread use, raised a number of questions, however.

  In order for the transfer facility to be used, it must be incorporated into a particular project and must offer added value. This proves difficult to achieve if the project is already computerized on the basis of long-established procedures (possibly under a Council regulation, such as Eurofarm or Comext, where the data media and record formats are specified), there is a need for investment associated with the changes to be made in the processing sequences, both by the Member States and by Eurostat, while the full benefit will be enjoyed only when the system is in use by all those involved. In the case of a non-computerized project, replacement of questionnaires or a new project, the solution seems easier, since only the relative costs have to be compared and adoption in all the countries no longer has the same importance.

  The definition of the procedures for integrating these new facilities in the field of application is again hindered by the wide variety of services, and the absence of a coordination body at national level whose responsibilities include informing the various correspondents and defining the cooperation procedures in order to set up the necessary infrastructure and develop or adapt the applications concerned.

In due course connections between the SOEC and the partner organizations will be improved and the computer infrastructure required by the STADIUM and STRINGS projects will be set up.

3.2 The STANORM project (STAtistique NORMalisation)

(a) Purpose and description

The STANORM project has been set up because of the lack of standards for the exchange of statistical data. This is partly a result of the large number of applications and partners, combined with the specific nature of actual statistical information.

The STANORM project aims to study the standardization of data interchange between heterogeneous statistical environments. The following will be given particular attention:

- standardization of database downloading formats;

- standardization of data interchange between non-integrated software packages;

- standardization of logical and physical formats used with the various interchange media.

The aims of the STANORM project are to tackle the problems associated with the heterogeneity of:

- databases and applications;

- computer environments (SOEC, national statistical institutes, etc.);

- the interchange media used (diskettes, magnetic tapes, computer networks, etc.).

(b) Status and prospects

The project activities will be organized in two ways:

. a global approach analysing the nature of statistical information (data, metadata, etc.), its structures (databases, tables, etc.) and computer data management and storage techniques;

. a pragmatic approach aiming to set up, over the next six months, interfaces between the databases and the software most frequently used in the SOEC computing environment.

- Global approach

  Study and experiments with standards which exist or are under development, covering:

  . standardization work (EDIFACT, ASN-1), and participation in various working parties such as the EDIFACT Board;

  . the use of standards based on marking techniques (SGML, FORMEX, etc.), in particular for the interchange of statistical information for publication and distribution purposes (printing firms, host computers, etc.);

  . the evaluation of software supporting the standards and the definition of selection criteria for its integration into the applications (Member States and Eurostat).

- Pragmatic approach

  An initial prototype (PC-SIMPLE) of a tool allowing access to databases from a PC environment has been written.

The PC-SIMPLE tool

. can be used to define, select and extract the sets of data to be interchanged;

. offers data transfer primitives based on the tools developed under the STATEL project;

. structures information in the form of statistical tables for importing into a spreadsheet.

Developments on PC-SIMPLE will comprise:

. the addition of new interfaces to the databases;

. the taking account of metadata, both in the development of user commands and in their relationship with the downloaded data (e.g. literals).

In time, the STANORM project will offer greater flexibility in the various ways statistical information can be exchanged between the partner organizations and will allow greater mutual independence in the development of the various computing environments.

3.3 The STRINGS project (STatistical Report INtegrated Generation Service)

(a) Purpose and description

The STRINGS project aims to build an architecture for the production and dissemination of statistical information by means of statistical reports.

Statistical reports may take various forms such as regular or one-off publications, pages in electronic bulletin boards, or structured downloading of information from dissemination databases.

Statistical reports contain a structured set of text components (analysis, comment, methodological notes), tables (numerical information) and graphics.

The STRINGS project aims to facilitate the integration of these various components into a heterogeneous and distributed computer environment like that of the SOEC.

The objectives of the project therefore focus on three main areas, namely: improving efficiency, improving quality and promoting a wide variety of dissemination media.

(b) Status and prospects

The activities of this project are organized into a dual approach:

- a global analysis of the production and dissemination of statistical reports;

- a pragmatic approach based on experimentation with the technical solutions now available on the electronic publishing market.

The work covered the following points:

- Global approach

Analysis is in progress and has looked at the following:

. modelling of the stages of the production of a statistical report and the related components (text, tables, graphics and images);
. modelling of the statistical report object according to its nature, content and dissemination medium;
. definition of a strategy for using the results of the STRINGS project based on the principles of automated operation, reproducibility, independence of applications and hardware constraints;
. definition of guidelines for the selection of computer architecture and organizational structures, regarding in particular the organization of the work and the definition of responsibilities, distribution of processing and sharing of resources;
. definition of a initial set of conventions and methods for use in publications at the SOEC;
. definition of a marking language for exchanging components (text, tables, graphics, etc.) in a rich format between the application environment and the electronic publishing environment.

- Pragmatic approach

The principal results have been obtained by:

. setting up a specialized infrastructure comprising three electronic publishing workstations linked via a local area network and sharing two laser printers;
. the development of interfaces between the application software and the electronic publishing software;
. training in the use of the equipment;
. pilot experiments (ECU-EMS, information, tourism, transport, etc.) in cooperation with the author departments.

Initial experiments indicate that:

- the quality and ease of integration of the components are very uneven:

. the importing of text poses few problems, there are many interfaces and this area is being standardized (X.400, SGML);
. the importing of tables is proving extremely complex owing to the lack of interfaces and modelling in the source and target software; no representation standards are available;
. the importing of graphics is helped by the availability of many (non-standardized) interfaces, but results vary owing to the lack of precision of the representations. International standards exist (6 GKS) but are not available.
. importing of images has not been tested.

In the short term, regular publications will be produced using the tools and methods defined under the STRINGS project. The first interchanges of "electronic" reports will be carried out with the specialist partner organizations (Publications Office, printing firms, database host computers) before being extended to the national statistical departments.

3.4 The STADIUM project (STAtistical Data Interchange Universal Monitor)

(a) Purpose and description

The STADIUM project aims to set up a collection centre for statistical data at the SOEC.

The SOEC receives statistical data from many partner organizations in the Member States. At the moment, these data are mainly transmitted on magnetic tape (some 10 000 tapes a year). The volume of data received is about 3 000 million characters a year, of which some 20 million are on paper.

At present, each SOEC section has its own administrative and technical procedures for data collection. These procedures are supported by computer environments which are heterogeneous and, quite often, placed under an operating responsibility that is external to the SOEC.

The objectives of the STADIUM project are:

- to improve the effectiveness of data collection by setting up a specialized infrastructure owned by the SOEC and, in particular, by rationalizing communications between the various computer environments involved in data collection;

- to increase flexibility in taking account of the particular needs of SOEC statistical applications and data suppliers;

- to contribute to the assessment of constraints and instructions regarding the confidentiality of statistical data;

- to rationalize the flow of statistical information, mainly by reducing redundant flows and making cost-effective use of data;

- to gradually introduce new data transport techniques;

- to introduce standards covering the content, structure and format of data transmitted for collection.

For some of the above objectives, the STADIUM project will make use of the results obtained by the STATEL and STANORM projects.

(b) Status and prospects

The services to be provided by STADIUM fall into the following categories:

- data reception,

- data storage and management,

- data "dispatching",

- follow-up of the data collection process.

The solution envisaged by the feasibility study is centred on three information bases:

- a "buffer base" used to store received data before dispatch to the target applications;

- a "follow-up base" used to store information about received and dispatched data;

- a "reference base" used to store the information needed to take action on the data received.

STADIUM will therefore be built up in two phases corresponding to two levels of service envisaged by the project.

The first level of service is now being set up at the SOEC.

The implementation of STADIUM has undergone some changes in order to adapt to developments in computing at the EC Commission, as regards both architecture (the local machine running STADIUM will be installed mid-1988) and software (the choice of database manager - Oracle - was made in spring 1988).

The detailed analysis of the content of the three information bases (buffer, follow-up and reference) should lead to the setting up of an initial prototype by autumn 1988.

The second level of service will then be set up, using the results of the projects STANORM (EDIFACT in particular) and STATEL (STATEL host and computer infrastructure in the Member States).

3.5 Expert system for missing data

(a) Purpose and description

The objective of the project is to evaluate the quality of the performance obtained by applying expert system techniques in combination with modern forecasting methods to compensate for missing data in trade matrices. The project applies these techniques to a specific subset of foreign trade data, in practice a matrix of total world trade, with a view to providing the best set of coherent estimates covering all trade flows.

An experienced statistician specializing in trade matters, who has to estimate a trade flow for a given period, starts by gathering together all the available information. This consists of results (if available) for part of the period, trade figures from the other party involved in the transaction and estimates made by various official or other organizations.

He may also establish estimates based on statistical techniques applied to historical data. He then develops a best estimate with the help of a set of hierarchical rules, some of which are clearly defined ("organization X is always too optimistic with export matters", for example), whereas others depend upon non-formalized experience and are only used when certain calculations "don't add up". If one could capture these techniques into an expert system, the rapid up-to-date publication of more accurate figures for a whole series of elements would become feasible. This will lead to a significant increase in the usefulness of the figures for users. The comparison of new definitive values with these "best" estimates constitutes a by-product of this work which will facilitate the highlighting of contradictory figures and directing the work towards the basic data which is of most interest.

In its final form, the prototype of the system should allow gaps in trade matrices to be filled with estimates which are sufficiently reliable to allow an analysis of recent trends in areas of interest.

(b) Status and medium-term prospects

Phase one of the project was completed early in 1987. A mock-up of a simplified system has been demonstrated to the Commission. This mock-up handles the total trade of some thirty countries or geographical areas.

Phase two began in the spring of 1987 and was completed at the end of that year. The following was achieved:

- development of a system for retrieving data from various sources:

  . UNSO COMTRADE

  . IMF DOT

  . CEPII forecasts

- improvement of the expert system.

Phase three began in the spring of 1988.

- integration of the control system, forecasting system and database on a single workstation;
- extension of the coverage so as to process each country individually.

3.6 Easy availability of unit-value and volume indices

(a) Purpose and description

The objective of this project is to make an important series of derived information, calculated from standard external trade statistics, as readily available to users as the basic data.

The user of external trade data above all needs to be able to look at trends. Exchange rate fluctuations and inflation distort trends in value and make direct assessment of volume changes difficult. An answer to this need is to use average values (i.e. total values divided by total quantities for some homogeneous commodity headings). These can be weighted together to give estimated price changes for groups of commodities. These changes can be used to calculate the volume changes.

(b) Status and prospects

The project was completed in the summer of 1988. The SOEC's external trade indices (75 000 series) are now stored in the TREND database. This offers easy access to Commission users.

3.7 Made-to-measure publications

(a) Purpose and description

The objectives of this project are to develop general systems for generating reports from external trade databases in a number of versions each adapted to a particular user. This approach, in the CADDIA context, will significantly improve the usefulness and distribution of external trade statistics.

A great deal of work has gone into collecting, transmitting, processing and storing external trade data giving a wealth of harmonized data in well structured databases. Other projects are devoted to improving the quality of the data, cross-checking it and making access to data easier.

There are regular comprehensive publication programmes covering general needs. The volume of information can discourage users, however. How does an individual user know without a considerable amount of personal effort if, in the latest figures, there is anything important for his particular area of interest? Or have there been any structural changes over recent years in the subset of data in which he is particularly interested which diverge from the general pattern shown in the usual publications?

Recent developments in computing, statistics and dissemination techniques allow the development of "publications" which are general in their outline conception but can be varied in their detail to focus on the external trade figures of one particular country/country group or one particular type of commodity. Striking features will be automatically identified and highlighted.

A generalized system which can be adapted to individual needs is by far the most efficient way of meeting those needs wherever there exists a mass of needs, each having a similar structure. It will save machine resources and staff time and capitalize on the investment in harmonized external trade statistics.

(b) Prospects

Initially, the project will cover one or two of the most general publication needs. Subsequent developments will include dissemination by computerized telecommunications, and more sophisticated, specific and user-friendly programs.

A feasibility study was completed in May 1988. The initial development phase will begin in the summer of 1988, with the aim of producing an initial group of ten publications.

3.8 External Trade Statistics

Integrated database access - peripheral systems

(a) Purpose and description

The processing and dissemination of external trade statistics are organized in a number of databases such as COMEXT, CRONOS and GATTLUX. These statistics are linked to several reference bases, essentially SABINE and TARIC. The aim of the project is to develop tools for accessing various databases on local computer equipment and to rationalize and improve the use and administration of external trade statistics.

(b) Status and medium-term prospects

After investigation of user needs and the installation of local computer equipment, the applications have been tested and implemented on an NCR Tower running UNIX and an Olivetti M24 PC running MSDOS.

Software has been tested and implemented mainly in order to integrate the various applications and to allow local processing, namely: loading and downloading of data, transfer of work files between the different sites, transmission of data to Geneva and establishment of working links with the NCR Tower used in Geneva for work relating to the GATT negotiations, and processing of data from the TARIC database on the Siemens computer.

The project will be followed up with the implementation of a system for pre-processing nomenclatures in the context of the introduction of the Harmonized System (HS) in external trade statistics, administration and reproduction of results for the dissemination of external trade statistics.

3.9 External trade statistics

Improvement and enhancement of databases - keyword retrieval system

(a) Purpose and description

Information in the SOEC databases is accessible using codes. Thus the COMEXT database can be accessed by nomenclature, country or merchandise codes and CRONOS by a code which is explained in the classification scheme.

The product nomenclatures, essentially the combined nomenclature and SITC, are hierarchical and their use requires a certain expertise and knowledge of their underlying principles. The aim of this project is to facilitate access to the external trade statistics results by making available to users a tool for retrieval by keywords and abbreviated texts which are immediately understandable to users.

(b) Status and medium-term prospects

After analysis of user needs and the presentation of a feasibility study, a prototype was developed using the 1985 NIMEXE nomenclature and BASIS. It has been presented and made accessible to users.

In October 1986 the TRS system from Software AG was made available to the SOEC on a trial basis. Tests were carried out and demonstrations given, and the Commission was asked to buy the software. The search index and the interface modules to the SOEC database modules have been written. A module is available to access all the NIMEXE codes of the various years and the CN. Code searches can already be made in the system. A connection with the COMEXT application is being set up.

Meanwhile, a system to hold the full texts of the nomenclature in English and French called NOMACC (nomenclature access) integrated into a system of access, update, initial loading and historical loading, has been extended to processing of HS codes and texts in German.

This system must be directly linked to the SIENA, SABINE and TARIC databases. Thus, the interfaces for the updating procedures of the nomenclatures, with automatic update of the derived nomenclatures, are to be analysed in conjunction with these three projects.

The abbreviated and self-explanatory texts have been drawn up in French and English. The German texts are being written at the moment. Editing programs which help shorten these texts have been written. Printouts and diskettes are available to the Member States and other users.

3.10 External Trade Statistics

Processing and use of statistics - GSP statistics

(a) Purpose and description

The statistics of imports under the Generalized System of Preferences (GSP) are transmitted quarterly by the Member States and are processed by programs which have to be adapted to the modifications of the system each year. The system is designed to allow imports under the GSP to be compared with total imports in special trade and the sensitive imports which come under DG XXI's GSP monitoring system.

The introduction of the harmonized system, the extension of the application to twelve Member States, and developments in external trade statistics, their transfer to Amdahl and the setting up of databases in the field are major changes which make re-writing of the application necessary with the aim of better integration in the external trade database system.

(b) Progress and medium-term prospects

The feasibility study has been completed and approved by the relevant Commission departments. Detailed analysis and programming are in progress.

The study presents a description of the system running on ICL and concludes that a complete re-write of the present system is necessary. It is proposed that the project be organized in database form (Amdahl, Adabas) with on-line retrieval facilities which will facilitate the development of the production programs and allow historical processing of data in a coherent framework.

A cost/benefit analysis is presented. The resources needed for the implementation of the system have to be invested this year in order to be operational for the processing of the new 1988 GSP.

3.11 Sectoral production and income model for Community agriculture (SPEL)

(a) Purpose and description

SPEL is a systematically structured and comparable database for the agricultural sectors of the Member States and the Community as a whole. The SPEL model is designed to carry out the following tasks:

- ex-post analyses of sectoral developments (production, productivity and income);

- short-term and medium-term forecasts of agricultural income trends;

- simulation of the effects of alternative agricultural policies;

- verification of the consistency of Eurostat's agricultural statistics.

(b) Status

1. The programs for setting up the basic model (table 8 000) on the Amdahl computer in Luxembourg have now been installed.

2. Ex-post analysis of the gross added value of the main agricultural products - in progress.

3. User-friendly interface for on-line use of the SPEL system:

   - the technical concept has been drawn up;

   - it is in experimental use.

4. Installation of the short-term forecasting and simulation system (SFSS), together with all the operation and evaluation programs, is now complete.

5. The trend of agricultural income in 1987 was forecast with the SFSS system in January 1988.

6. Medium-term forecasting and simulation system (MFSS):

   - the concept has been developed;

   - a practical implementation of the concept is in progress.

7. Replacement of version A of SPEL with version B. The main differences are as follows: (i) greater attention is paid to the situation of animal feedstuffs in the sector; (ii) greater attention is paid to the growth of Mediterranean products; (iii) the structure of intermediate consumption has been improved.

   - the concept has been developed;

   - the section on "use of animal feedstuffs" is under development.

8. Simulations of the effect of stabilizers on short- and medium-term development of production, prices and income.

(c) Outlook

1. Integration of Spain and Portugal into the SPEL system:

   - development of an experimental version of the basic model by the end of 1988 (version A);

   - extension of the SFSS system by spring 1989;

   - development of the final version of the basic model by summer 1989.

2. Development of the interactive system (basic model and SFSS) by summer 1989;

3. Development of the medium-term forecasting and simulation system of the SPEL model (MFSS) for the 12 Member States:

   - writing of an initial experimental version for the demand for agricultural products (human consumption) by the end of 1988;

   - compilation of the data needed for the complete "demand" section of the model by the end of 1988. Writing of an initial experimental version of the "demand" section of the model by the summer of 1989;

   - there are plans to develop a concept for integrating primary production factors (land, labour and capital) into the SPEL system. This will depend on the availability of the necessary data.

4. Preparation of documentation

   - basic model and SFSS: completion depends on priority. At present, the integration of Spain and Portugal is given higher priority;

   - MFSS: will be done together with this project.

3.12 Agriculture structure database: Eurofarm

(a) Purpose and description

The Community survey on agricultural holdings is designed to supply data on Community agriculture which is as complete as possible. This project should provide Eurostat with data on individual farms, allowing ad hoc analyses for the development and monitoring of the CAP. The principal problem is the guarantees that have to be given to Member States on non-disclosure outside Eurostat of the individual data covered by statistical confidentiality. This involves the Commission in a significant investment whose results will allow it to avoid both information gaps and the sometimes serious delays for Commission departments as well as the high costs entailed in requesting specific tabulations from Member States.

A direct link will initially be set up with the German statistical office in Wiesbaden, where a database similar to that developed in Luxembourg will be set up. This could also be done in all the other Member States' statistical offices.

(b) Status and medium-term prospects

The feasibility study was completed at the end of March 1987. It was carried out in close cooperation with DG IX, in particular for the specification of the security plan. Systems analysis is in progress and the first developments will take place very shortly.

The system will be set up jointly by Eurostat and DG IX over the period 1988-90. The main stages will be as follows:

1. Setting up of two databases at Eurostat:

   - a production and processing base (BDI) containing the detailed data;

   - a dissemination and consultation base (BDT).

2. Setting up of a table generator to analyse BDI data.

3. Development of a simple system for the consultation and manipulation of BDT data.

4. Setting up of interfaces between the BDI and the BDT on the one hand and analysis environments on the other (micro, SAS, etc.).

3.13 Crop forecasting model

(a) Purpose and description

The Eurostat crop forecasting model produces short-term yield forecasts for the most important crops in each Member State.

The model uses two distinct types of historical data:

- agricultural data (area, production) from the Cronos database;

- meteorological data collected in 160 meteorological stations throughout the whole Community. These data are provided by Deutscher Wetterdienst Zentralamt (DWD) in Offenbach, West Germany.

The principal objectives of the project are to produce reliable forecasts of yield and production of the main crop products, and a meteorological alarm to warn of abnormal weather conditions.

The conclusions of the various studies of the model undertaken indicate that present forecasts can be improved by using 10-day rather than monthly data, by regionalization of the model to obtain regional forecasts which could be appropriately used to make national forecasts and, finally, by the possible incorporation into the model of data obtained by remote sensing.

(b) Status and medium-term prospects

1. The 10-day data input version of the model is operational. This version will be used as an automatic source in the preparation of Eurostat forecasts, taking account of the results of a study undertaken to measure the relative performance of the two versions of the model. The results of the study are expected by the end of September.

2. As regards the incorporation of the new Member States into the model, Greece should be integrated for the next farming year. Confirmation is now awaited of the availability of long historical series of meteorological data from Spain and Portugal. These two Member States should be incorporated during the course of next year.

3. Use of cartography for the presentation of meteorological alarms. The aim is to present the results of the tests of meteorological data on the outline of Europe. This work has just begun and the system is expected to be operational for the 1989-90 farming year.

4. Incorporation of remote-sensing data into the model. The types of data and the method to be used depend to a large extent on the results of studies organized jointly by Eurostat and the JRC (Ispra). The work is making good progress.

3.14 Reseau: European network for monitoring the environment, agriculture and urban development

(a) Purpose and description

Environmental policy is covered by the Single Act of December 1985. Eurostat provides access to Community environmental statistics via the Reseau database.

Reseau is a database which gathers together the variables held in the Member States' ministries or organizations.

The selection of variables results, among other things, from the multiannual programme Corine which is intended to define needs to be coordinated by Eurostat. The data will cover a variety of fields, such as: land use, facilities, environmental protection and monitoring, agricultural production, less-favoured agricultural areas, forests, and urban and suburban areas, and will include socio-economic criteria.

(b) Status and medium-term prospects

The study was started in December 1986 by the drafting, in cooperation with DG IX, of a problem statement defining the objectives, needs and work necessary to link the Corine programme with the environmental database of the Reseau project.

The pre-analysis of the Corine-Reseau programme is practically complete.

Over 50 potential users of the Reseau database have been interviewed and have established their hardware and software needs, in order to have easy access to the database and to be able to represent the various types of information, using cartographic software, on geographical or statistical maps.

The following stages remain to be completed.

Feasibility study of the Corine-Reseau programme so as to:

- find out what cartographical software is currently available on the market,

- draw up a specification for the purchase of a GIS system;

- set up a data base containing the basic and reference data, the common and environmental data and the data peculiar to certain DGs.

This will facilitate:

- an assessment of the relative proportions of conventional data and data obtained by applying new technologies to statistics, such as aerial photography or remote sensing;

- a definition of the potential for data transmission between the production centres and Eurostat;

- a specification of the network management mechanisms and characteristics to enable the production of check lists and maps (the specification of the geographical information server is complete);

- a definition of standardized methods to access data which is already available in statistical databases (e.g. Cronos, Regio, Eurofarm, etc.).

ANNEX 2

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C A D D I A

WORKPLAN

CSC 86/001

14/8/86

This document provides an overview of the initial workplan that was agreed by the CSC in February 1986 in order to achieve the objectives of the CADDIA long-term development programme.

This initial plan is subject to continuous review and updating as necessary on the basis of technical progress reports and recommendations prepared by the Sectoral Groups of the CADDIA Steering Committee.

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2 - Customs Projects p. 6

3 - Statistical Projects p. 11

4 - Joint Projects p. 18

WORK PLAN SECTOR : AGRICULTURE

Project title	Project No	1986	1987	1988-93
AMIS (Agricultural Market Intelligence System)	A.1.	Completion and consolidation. Implementation of new processing required by the accession of Spain and Portugal to the Community (e.g. management of STM).	Adaptation of the AMIS database to the Harmonized System nomenclature and maintenance of what already exists	Continuation of the work depending on changes in agricultural regulation
FBF (EAGGF Budget Forecasting)	A.2.	Start of development of applications concerning budget forecasts with gradual implementation	Continuation and completion of the implementation of applications. Final entry into service	The new requirements will te taken into account under the AMIS system
FIS (Fast Information System)	A.3.	Analysis and implementation of the application	Starting of tests and entry into service. The Member State Administrations will be invited to take part in start-up.	Expansion of the facilities offered by FIS depen-depending on technological developments (microcomputers, standardized communications, protocols, etc).
APACO (Actes Périodiques Agricoles et COmités de gestion)	A.4.	The system is also operational for Spanish and Portuguese and is being implemented for Greek. Installation of new technical facilities for office automation (central unit)	Direct connection of the new office automation equipment to the AGREC telex service Connection of the office automation equipment with the computer system containing numeric data (AMIS)	Transmission of periodic acts via the public data network to the Office of Publications. Communication to the Member States of numeric data published in the Official Journal through the FIS application (see ref A.3.)

WORK PLAN SECTOR : AGRICULTURE

Project title	Project No	1986	1987	1988-93
SHIFT (System for animal Health Inspection at Frontier Posts)	A.5.	Political negotiation at Commission level	The launching of a feasibility study will depend on the results of the negociations	
IDES (Interactive Data Entry System)	A.6.	Putting the system into operation with a group of correspondants in the Member States Proposed areas :animal diseases and market prices)	Extension of the group of participants and field of application	Adaptation of data exchange according to technological developments and agricultural regulations
DOCED Presentation of numeric and textual data on various media (microfiches, spread-sheet, film-setting,etc)	A.7.	Transfer of computer files to the office automation system Transfer of AMIS files to the MULTIPLAN spread-sheet system Development of general transfer procedures(MFTS) between computers	Preparation of tables for the annual report on the situation of agriculture in the Community. Preparation of weekly reports on the situation of agricultural markets Adaptation of the procedures affected by the introduction of the Harmonized System (See ref. A.1.)	Continuation of work depending on technological developments
AGREX (Agricultural Expenditures)	A.8.	Completion of application programming Launching of applications with users	Operational system in the Commission Study of the interface with the Member States	(See réf. A.6.)

Project title	Project No.	1986	1987	1988-93
FAUDIT (EAGGF Auditing System)	A.9.	Completion of the analysis of information flows Launching of applications development	Continuation of implementation and gradual entry into operation	Operational system Adaptation of processing in the light of changes in agricultural regulations
FEOPAY (EAGGF orientation Payment)	A.10.	----	Possible launching of systems analysis and programming depending on the conclusions of the organizational study carried out in 1986 under A.15. (FEOORG)	idem
FEORI (EAGGF guidance - examination of project proposals)	A.11.	----	Possible launching of systems analysis and programming depending on the conclusions of the organizational study carried out in 1986 under ref. A.15 (FEOORG)	
HARD (IT infrastructure)	A.12.	Leasing of terminals for the development of the applications mentioned in this document	Extension of leasing or purchase	Extension of leasing or purchase
FADN (Farm Accountancy Data Network)	A.13.	Operational system. Extension of the system subject to approval of the FADN Management Committee	Implementation of validation programmes in the the Member States	Updating and consultation of FADN data from the Member States

WORK PLAN SECTOR : AGRICULTURE

Project title	Project No	1986	1987	1988-93
AGEFT (Agricultural Electronic Fund Transfer)	A.14.	A feasibility study will be launched as soon as the EAGGF Committee has approved the usefulness of the project. This project will be a development of the AX application (see ref. A.8)	Possible implementation of the applications defined	
FEOORG (EAGGF Guidance - Organizational Study)	A.15.	Organizational study on data flows involved in the examination and follow-up of project proposals		

WORK PLAN SECTOR : CUSTOMS UNION SERVICE

- Project title	Project No.	1986	1987	1988-93
COORDINATION CD	D.0.	Horizontal activities in the CD project as a whole	Horizontal activities in the CD project as a whole	Horizontal activities in the CD project as a whole
INTRA COMMUNITY trade sub-system	D.1	Intra-Community trade-specification of requirements for intermediate and long-term intra-Community trade sub-systems, in view of the need to establish the internal market by 31 December 1992	Extension of the field of intra-Community proper to the problems raised by the application of VAT, to intra-Com-Community statistics and to the verification of goods subject to excise duties or not enjoying free movement.	Definition of the user requirements Feasibility study of the various systems envisaged. Start of implementation in accodance with the selected options
IMPORT SUB-SYSTEM EXPORT SUB-SYSTEM	D.2 D.3.	---	Start of preparatory work on user requirement statements for the functions and services to be included in the import and export sub-systems. This work must be undertaken in accordance with a list of priorities to be established by the CD Committee	Continuation of this work

WORK PLAN SECTOR : CUSTOMS UNION SERVICE

- Titre des projets	No de projet	1986	1987	1988-93
PILOT PROJECTS	D.4	Pilot projects - agreement and implementation of a number of data exchange projects to test out and gain experience with concepts to be used in the longer term. These should cover projects involving data exchange between the Commission and the Member States, between two Member States and between traders and customs within a Member State.	Continuation of tests	Continuation of tests Conclusions and proposals on the establishment of definitive systems
TRADER INTERFACES	D.5.	-----	Trader interfaces 1. Prepare user requirements statements for trader interfaces. 2. Define standards for agreed interfaces. 3. Agree on the technical specification of interfaces to be provided.	Start of implementation.

WORK PLAN SECTOR : CUSTOMS UNION SERVICE

- Project title	Project No.	1986	1987	1988-93
COMMISSION SYSTEM - TARIC MANAGEMENT GESTION TARIC	D.6.6.1.	TARIC - completion of the loading of the TARIC data base in the Community Languages other than Spanish and Portugese. Dispatch of magnetic tapes to the MS for the setting-up of their own systems.-	Amendments and updating following the study and implementation of the TARIC interface. Possibly loading of Spanish and Portugese data bases.	Monitoring of the working of TARIC
COMMISSION SYSTEM TARIC INTERRFACE	D.6.6.2	Completion of the design and agreement of the specification with the Member States. Specification of the data to be added to the existing data base.	Study of the organization and methods required for for managing TARIC and providing the update service.	Start of implementation
CHEMICAL REPERTOIRE	D.6.7.	-Extension of denominations covered by the data base to 30.000. -Extension of the system to Greek (all Community languages are covered).	Start on transfers and integration with the EINECS data base. (list of chemical products existing in 1981).	Continuation and completion of the work.
CUSTOMS INFORMATION SYSTEM - phase 1 -	D..6.8.1.	Feasibility study of the new management system for inward processing and system development	Completion of the system development.	On-line access from the Member States

WORK PLAN SECTOR : CUSTOMS UNION SERVICE

- Project title	Project No	1986	1987	1988-93
CUSTOMS INFORMATION SYSTEM - PHASE II -	D.6.8.2.	Feasibility study on the new computerized system for tariff classification decisions.	System development	On-line access from the Member States
CUSTOMS INFORMATION SYSTEM - MESSAGE HANDLING	D.6.8.3.	Monitoring of the progress of the work on the various types of message handling services for communications with the Member-State administrations, including electronic mail (part of the facilities to be provided by the Commission under the INSIS programme).	Connected with the INSIS work.	
CUSTOMS INFORMATION SYSTEM - MISCELLANEOUS	D.6.8.4.	Study of standarized access to customs data bases (chemical repertoire, list of customs offices, etc.). Study of other areas that could possibly be covered by computerized information systems.	Development and establishment of the interface.	Continuation of the work

WORK PLAN SECTOR : CUSTOMS UNION SERVICE

- Project title	Project No.	1986	1987	1988-93
INFORMATION SYSTEM FOR FRAUD CONTROL	D.6.9.	Continuation of contacts with the Member States to analyse data required for anti-fraud operations in order to strengthening mutual assistance.	Continuation of the work and studies on the possible establishment of data bases having consultation facilities for the Member States (mutual assistance and infringements).	
DATA INTERCHANGE STANDARDS	D.7.	Standards - finalization of syntax rules and data elements directory,based on United Nations standards.	Publication of standards in a measure adopted by the Commission. Finalization of codes and preparation of message formats for the intra-Community trade subsystem (work to be carried out in close cooperation with the SAD team, CADDIA Central Team, the ECE in Geneva, the CCC and and ODETTE).	Application of the standards adopted in the various systems.
LEGAL PROBLEMS AND REQUIREMENTS	D.8.	Promotion of studies on legal problems. Continuation of studies already carried out by CELIM (Symposium on 17-18 March 1986).	Possible introduction into Community customs legislation of legal rules covering the various areas of electronic data exchange.	Continuation of the work

CADDIA WORK PLAN : STATISTICAL SECTOR

- Projects	Project No	1986	1987	1988-93
REMOTE TRANSMISSION OF STATISTICAL DATA	S.1.1.	Establishment of the remote transmission infrastructure in a limited subset of member countries Use of remote transmission for the collection of certain categories of data.	Use of remote transmission extended to other categories of data	Use of remote transmission extended to all member countries
STANDARDIZATION AND DISTRIBUTION OF STATISTICAL REPORTS	S.1.2.	Project feasibility study Analysis of existing software packages and standards and comparison with the planned objectives for the project	Start of the design phase Establishment of the core for the STRINGS infrastructure and modernization of the existing graphics environment.	Complete development of the functions of STRINGS and extension of its use to the whole of EUROSTAT Introduction of new technologies in the distribution of information (optical discs, etc.)
COLLECTION CENTRE (STADIUM)	S.1.4.	System feasibility study Feasibility study for the application of the UNTDI standard	Design and implementation of the main core (receipt, storage and at EUROSTAT Impact of the UNTDI standard in STADIUM	Development and implementation of the full system at EUROSTAT Design and installation of the parts operating in the member countries Use of the UNDTI standard by the member countries

CADDIA WORK PLAN : STATISTICAL SECTOR

Projects	Project No	1986	1987	1988-93
COLLECTION OF STATISTICS MS : SYSTEM FOR THE COLLECTION OF STATISTICS ON : -SPECIAL INTRA-AND-EXTRA-EC TRADE UP TO 1992 -IMPORTS FROM NON-MEMBER COUNTRIES (SPECIAL TRADE) FROM 1993 -SGP	S.2.1.	Analysis of relations with returners of statistics (customs service and traders). Specification of statistical functions and analysis of the impact of remote transmission planned for the SUD/CD project and others	Continuation of analysis and implementation of statistical systems.	Gradual integration of new technologies. NB. from 1993 application of a new system for collecting statistics independent of the customs service for trade between the Member States and possibly for exports.
PROCESSING AND USE OF STATISTICS (a) IN DATA BANKS (b) CONFIDENTIALITY (c) CROSS CHECKING (c) CROSS CHECKING MS : SYSTEMS FOR PROCESSING AND COMPILING - STATISTICS ON : - SPECIAL TRADE - SGP	S.2.1.	Study of possibilities of converting existing processing with harmonization of methods for - retro-active correction - confidentiality - concordance with monitoring systems, especially SGP.	Analysis of studies and preparation of implementation proposals.	Gradual integration of new technologies N.B. from 1993 application of a new system for collecting statistics independent of the ent of the customs service for trade between the Member States and possibly for exports.
INTRODUCTION OF THE HARMONIZED SYSTEM (HS) STANDARDIZATION MS : FOREIGN TRADE STATISTICS, TARIFFS, SOEC : - BANK : SABINE, BPT, COMEXT, CRONOS - ALL EXTERNAL TRADE PROCESSING - GATTLUX BANK	S.2.1. S.2.3.	Analysis of functions affected by the introduction of the HS. Analysis and programming of an interface with TARIC (for the Member States - customs see SUD projects) Extension of the GATTLUX bank for consultation of HS-NIMEXE relations from 1986 to 1988.	Implementation of interfaces. Development of tariff statistics on the basis of the HS nomenclature (TARIC COMEXT interfaces).	Developments allowing for the impact of the white paper on the nomenclature used in internal trade and possibly for exports.

CADDIA WORK PLAN : STATISTICAL SECTOR

Projects	Project No	1986	1987	1988-93
IMPROVEMENT AND UPDATING OF STATISTICAL DATA BASES	S.2.1. S.2.4.			
-STATISTICAL SUPPORT FOR THE EAGGF FRAUD INVESTIGATORS : COMEXT, BPT		Feasibility study	Pilot project	Production system
-STATISTICAL MONITORING OF DATA QUALITY : COMEXT, BPT		Feasibility study	Pilot project	Production system
-SUITABILITY OF NOMENCLATURES IN KEY SECTORS : COMEXT, BPT		High technology sector	Other key sectors	other key sectors
-STATISTICAL WARNING SYSTEMS COMEXT, BPT		Feasibility study	Pilot project	Operational system
-OPTICAL DISC AND DISSEMINATION COMEXT, BPT			Technical tests	Pilot projects

CADDIA WORK PLAN : STATISTICAL SECTOR

- Projects	Project No	1986	1987	1988-93
KEYWORD INTERROGATION SYSTEM SOEC : DISTRIBUTION BANKS COMEXT, CRONOS, SABINE MEMBER STATES : MANAGEMENT OF EXTERNAL TRADE NOMENCLATURES	S.2.2.	-Implementation of a simple prototype, systems analysis and software tests. Installation of the selected software. Implementation programming. Drafting of legal and summary texts	-Effort to automate the system of self-explanatory texts -Connection to outside systems	-Maintenance of the system
INTEGRATED ACCESS TO DATA BASES SOEC : PREPROCESSING BANKS CEE, COMEXT-EUROSTAT, CRONOS, SABINE	S.2.3.	-Installation of peripheral systems (NCR-TOWER, PC-M24 and word processing). Analysis of functions and their allocation to different access levels. Implementation programming.	-Continuation of programming. Systems implementation	-Progressive integration of new technology
EXPERT SYSTEM IMPROVEMENT AND UPGRADING OF STATISTICAL DATA BASES COMEXT, CRONOS, BPT	S.2.4.	-Pilot project (blue print/feasibility)	-Tuning - prototype	-Production system

CADDIA WORK PLAN : STATISTICAL SECTOR

Projects	Project No	1986	1987	1988-93
FORESTRY DATA BANK	S.3.1.	Selection of necessary forestry data and harmonization (DG VI and SOEC) Study of a suitable tool for mapping and inventory at regional level.	Multiplication of the selected tool and centralization of data Establishment of a forestry data bank Analysis and development of data transmission methods. Access by the public. Analysis with a view to inventory and mapping	Continuation of the activity. Setting-up of remote for quantified monitoring -the health of forests -the development of disease or damage as a result of pollution, storms or fires -changes in structures
EUROFARM	S.3.2.	Project feasibility study. Analysis of the situation in the three test Member States (Germany, Italy, UK) as regards harmonization, checking and transfer of individual data. Analysis of the existing data base with a view to integrating it in the project	Start on the design of The system. Analysis of the "wine" and "fruit" surveys to integrate them in the tabular data base. Analysis of connection possibilities between EUROSTAT and the Member States	Start-up of the system ; test on the 1987 survey. The system will be fully operational for the 1989/90 survey.

CADDIA WORK PLAN : STATISTICAL SECTOR

- Projects	Project No	1986	1987	1988-93
SPEL (SECTORIAL PRODUCTION AND INCOME MODEL FOR COMMUNITY AGRICULTURE)	S.3.3.	Implementation of the present version of the model Adaptation of the user inter-face (user-friendly software for the data flows, transparency of data and the dialogue system) Application of the model : - Updating of the database - short term forecasts - validation of the forecas-ting method - simulation of the income effects of policy measures Establishment of data con-sistency between the various original time series. Adaptation of data transfer procedure in the event of methodological or technical changes	Further development of the model taking account of the Mediterranean agricultural products. Implementation of this version of the model Complete integration of Spain in the model	Complete integration of Portugal in the model

CADDIA WORK PLAN : STATISTICAL SECTOR

Projects	Project No	1986	1987	1988-93
AGROMET CROP FORECASTS : AREAS, YIELDS,PRODUCTION.	S.3.4.	Harmonization of data. Protocol EUROSTAT/large cropgrowing regions Choice of regions Adaptation of the Eurostat model.	Equipment, transfers. Integration in the Commission's remote transmission system. Access, Analysis of the follow-up of information.	Maintenance, management, consolidation. AGROMET/RESEAU relations. New product(s). Comments from outside the EC.
RESEAU EUROPEAN NETWORK FOR THE MONITORING OF THE ENVIRONMENT, AGRICULTURE AND URBAN DEVELOPMENT	S.3.5.	Examination, selection and harmonization of data with the CORINE programme. General concept of data media and processing for inventory and mapping. Feasibility study.	Equipment for data centralization. Public access. Systems analysis for inventory and mapping.	Follow-up of the development of RESEAU with CORINE. Monitoring indi-indicators. Agriculture and environment (Remote sensing).

WORK PLAN SECTOR : CADDIA COORDINATION (Joint projects)

- Project title	Project No.	1986	1987	1988-93
STANDARDIZATION REQUIREMENTS	P1	Drafting of a set of information manuals on UNTDI to explain, publicize and implement it.	IDEM	IDEM
		Translation of these manuals and reference works into all the Community languages. Relations with the UN ECE, ISO, CEN-CENELEC on standardization problems.	IDEM	IDEM
			Selection of options proposed by UNTDI depending on the planned applications.	
			Establishment of a multilingual thesaurus on data exchange.	IDEM
			Dissemination of this information to interested bodies.	IDEM

WORK PLAN SECTOR : CADDIA COORDINATION (Joint projects)

- Project title	Project No.	1986	1987	1988-93
COORDINATION OF STANDARDIZATION	P.2	Setting up of a UNTDI coordination group representing the Commission departments. This group will be responsible for coordinating all the work on implementing UNTDI for the Commission's applications.	Definition of procedures for the adoption and publication of standards for syntax, data elements, messages and segments	Publication of interchange standards. Support for the implementation of data exchange applications as regards standards.
		For each application, definition of messages, segments and data elements.	IDEM	IDEM
		Storage of information used by CADDIA projects and projects of other organizations in a data base (CANDY)	IDEM	IDEM
		Participation in working parties of organizations outside the Commission dealing with message standardization (ODETTE, COMPRO'S)	IDEM IDEM	IDEM IDEM

WORK PLAN SECTOR : CADDIA COORDINATION (Joint projects)

- Project title	Project No.	1986	1987	1988-93
VALIDATION OF INFRA-STRUCTURE	P.3			
VALIDATION TESTS	P.3.1.	Tests on infrastructure components and their interconnection on Comission hardware. The validation tests are intended to select certain products to be used on operational sites. Specification of inegrated tools for data exchange.	Continuation of work depending on technological developments and the adoption of telecommunications and data interchange standards. IDEM	IDEM

WORK PLAN SECTOR : CADDIA COORDINATION (Joint projects)

- Project title	Project No.	1986	1987	1988-93
VALIDATION OF THE INFRASTRUCTURE	P.3.			
SUPPORT FOR PILOT PROJECTS	P.3.2	Negotiation and launching of pilot data exchange projects with the sectors concerned.	Specification of a conformance testing service for software validation in the light of international standards.	Use of conformance testing services to validate the IT infrastructure
		The Member States are invited to take part in these pilot data exchange projects.	Continuation of pilot projects and gradual extension of the use of computerized data exchange.	
		The CADDIA central team will provide all the necessary support for those responsible for sectorial projects.	Evaluation of pilot project results and impact on IT infrastructure scenarios (see P.5.)	IDEM
METHODOLOGY	P.4.	Monitoring of all the projects subsidized by the CADDIA programme. A suitable methodology for the interconnection of computer systems will be defined and proposed to the departments concerned in the Commission.	Application of medthods to all the CADDIA projects in accordance with CSC decisions	Methodological monitoring.

WORK PLAN SECTOR : CADDIA COORDINATION (Joint Projects)

- Project title	Project No.	1986	1987	1988-93
ESTABLISHMENT OF THE IT INFRASTRUCTURE	- P.5.	Analysis of data flows and quantification of frequencies, volumes and hourly peaks	Evaluation of infrastructure requirements and their application in in Member States.	Gradual installation of the irastructure suited to the requirements of the different sectors in accordance with an implementation schedule to be adopted by the CSC.
		Indentification and evaluation of protocols and services proposed or planned by manufacturers and national PTT administrations.	Relations with national PTT administrations for the use of available IT services.	
		Establishment of a list of computers and protocols used or planned in the Member States.	Definition of scenarios for the establishment of the infrastructure.	IDEM

ANNEX 3
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ACRONYMS - ACRONYMES

CADDIA	Coopération dans l'Automatisation des Données et de la Documentation dans les Importations/exportations et l'Agriculture / Cooperation in Automation of Data and Documentation for Imports/exports and Agriculture.
DG XIII	Direction Générale pour les Télécommunications, Industries de l'Information et Innovation / Directorate-General for Telecommunications, Information Industries and Innovation.
DG XXI	Direction Générale pour l'Union Douanière et la Fiscalité Indirecte / Directorate-General for Customs Union and Indirect Taxation.
DG VI	Direction Générale pour l'Agriculture / Directorate-General for Agriculture.
OSCE/SOEC	Office Statistique des Communautés Européennes / Statistical Office of the European Communities.
DG IX-E	Direction informatique (pour la Commission) / Directorate for Informatics (in the Commission).
PTF	Preliminary Task Force (for CADDIA) / Task Force Préliminaire (pour CADDIA)
CDC/CSC	Comité Directeur Caddia / Caddia Steering Committee
GPIC	Groupe Politique Inter-service CADDIA / CADDIA Policy Interservice Group

Message standardisation / Standardisation des messages

EDIFACT	Electronic Data Interchange For Administration, Commerce and Transport (DIS 9735) (new syntax rules)
(UN)TDED	(United Nations) Trade Data Elements Directory (ISO 7372)
UN-ECE/ WP4	United Nations - Economic Commission for Europe Working Party 4
GTDI	Guidelines for Trade Data Interchange (old syntax rules)
AELE/EFTA	Association Européenne de Libre Echange / European Free Trade Association
ISO	International Standards Organisation
UNTDI	United Nations Trade Data Interchange
UNCITRAL	United Nations Council for International TRAde Legislation
ANSI	American National Standards Institute
COMPROS	Community Trade Facilitation Organisations / Organisations communautaires pour la facilitation du commerce
SITPRO	UK Trade facilitation organisation
TEDIS	Trade Electronic Data Interchange Systems
ODETTE	Organisation for Data Exchange by Tele-Transmission in Europe
CEFIC	Conseil Européen des Fédérations de l'Industrie Chimique
EDIFICE	Electronic Data Interchange Forum for companies with Interest in Computing and Electronics
COST 306	COoperation in the fields of Scientific and Technical research (project no. 306 - Transport area)
DEDIST	Data Elements DIStribution in Trade (Nordic countries project)
DISH	Data Interchange for SHipping (UK project)

Telecoms

OSI	Open Systems Interconnection
FTAM	File Transfer Access and Management (DIS 8571)
TTX	TELETEX transmission
TLX	TELEX transmission
MFTS	Multilateral File Transfer System (C.E.C.)
PAD	Packet Assembly and Disassembly (X28)
ASN1	Abstract Syntax Notation 1

Customs sector / Secteur douanier

CD Project	Coordinated Development Project
TARIC	TARif Intégré Communautaire
SCENT	System Customs Enforcement NeTwork
SPG/GSP	Système de Préférences Généralisé / Generalised System of Preferences
DAU/SAD	Document Administratif Unique / Single Administratif Document

Statistical sector / Secteur statistiques

INS	Institut National de Statistiques
STATEL	STAtistiques TELetransmission
STANORM	STAtistiques NORMalisation
STRINGS	STatistical Report INtegrated Generation Service
SPEL	Sektorales Produktions und Einkommens modell der Landwirtschaft

RESEAU	Réseau Européen de Surveillance de l'Environnement, de l'Agriculture et de l'Urbanisation
CORINE	Projet expérimental pour la collecte, la coordination et la mise en cohérence des informations sur l'état de l'environnement et des ressources naturelles
SGML	Standard Generalised Mark-up Language
PAO/CAP	Publication Assistée par Ordinateur / Computer Assisted Publication

Agricultural sector/Secteur agricole

AMIS	Agricultural Market Intelligence System
FEOGA/EAGGF	Fonds Européen d'Orientation et de Garantie Agricole / European Agricultural Guidance and Guarantee Fund
OCM	Organisations Communes de Marché
IDES	Interactive Data Entry System
PAC/CAP	Politique Agricole Commune / Common Agricultural Policy
MCE/CTM	Mécanisme Complémentaire aux Echanges / Complementary Trade Mecanism
MCM/MCA	Montants Compensatoires Monétaires / Monetary Complementary Amounts
FIS	Fast Information System
APACO	Actes Périodiques Agricoles et COmités de gestion
ARPS	Agricultural Report Production System
FBF	Feoga Budget Forecasting
AGREX	AGRicultural guarantee fund EXpenditures
SHIFT	Systems for animal Health Inspection at FronTier posts
DOCED	DOCumentation EDition
FAUDIT	Feoga AUDITing System
RICA	Réseau d'Informations Comptables Agricoles
AGEFT	AGricultural Electronic Fund Transfer
FEOPAY	FEoga Orientation PAYment
FEORI	FEoga ORientation Instructions de dossiers