



EUROPEAN COMMISSION
EMPLOYMENT, SOCIAL AFFAIRS & EQUAL OPPORTUNITIES

Social Protection and Social Integration
Free movement of workers and co-ordination of social security schemes

OPEN CALL FOR TENDERS VT/2006/025

Feasibility Study

**"INTENSIFICATION OF DATA EXCHANGE PROCESSES BETWEEN SOCIAL SECURITY
INSTITUTIONS**

**FOR CO-ORDINATION OF SOCIAL SECURITY SCHEMES
BY INCREASING THE USE OF ELECTRONIC MEANS "**

Part I

ADMINISTRATIVE SPECIFICATIONS

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1 BACKGROUND

Protection of the social security rights of mobile citizens in accordance with EC rules for social security co-ordination¹ is based on a permanent and complex information flow between social security institutions of the Member States. The bulk of these exchanges are affected by using paper E forms which are sent via traditional post from one institution to another or the citizen concerned.

Several factors make the use of the paper forms complicated and consequently hamper the protection of social security rights of mobile citizens. Among other things, they are still regularly completed manually, do not fit well with the multilingual nature of the EU and do not correspond in an appropriate way to the need for regular updating resulting mainly from continuous changes in social security legislation at both national and EC level. These factors create misunderstandings and ambiguities, which essentially considerably limit the usability of these forms. Consequently, many E forms are regularly misused or rejected.

The enlargement of the European Union decreases the usability of the E forms further. The social security rights of mobile citizens are difficult to protect in an appropriate way in a situation where information exchanges and verifications between thousands of social security institutions are carried out by paper documents appearing in 20 different language versions. Most accept that continuing to operate in this manner does not bode well - with the risk of chaos rather imminent.

Wishing to protect the rights of mobile citizens as efficiently as possible and in line with high-level political objectives of the European Union, the social security authorities of the Member States have agreed upon modernising and speeding up the information exchanges between themselves, alongside the modernisation of the EC social security co-ordination rules. In fact the fundamental building block for the draft implementing proposal for implementing the new modernised and simplified regulation relies on electronic exchange of information being the norm rather than the exception.

As IT arrangements provide efficient solutions to most challenges linked to the use of paper documents, it is more than justified and reasonable to replace paper-based information exchanges on social security at EU level by IT-based procedures. In particular, IT-based exchanges should permit:

- appropriate and precise protection of social security rights;
- appropriate and efficient granting of social security benefits to mobile EU citizens;
- precise data sending and receiving;
- multi-use of the data;
- efficient verification of the data;
- fast processing;
- a flexible and easy interface between different systems
- efficient collection of social security contributions and
- improved reliability of the quality of the data.

¹ i.e. Regulation (EC) 1408/71, and its implementing Regulation (EC) 574/72 currently apply. Regulation (EC) 883/04 is the new modernised and simplified regulation that will replace Regulation (EC) 1408/71 and come into effect once its implementing proposal COM(2006)16 completes its passage through Council and European Parliament and is adopted as the new implementing regulation – negotiations have been opened by the Austrian Presidency.

2 PURPOSE OF THE CONTRACT

The contract to be awarded concerns explicitly the realisation of a feasibility study which should identify a practical and rational strategy and concrete solutions for changeover to electronic implementation of social security co-ordination rules before 2009.

The overall objective of the changeover to electronic exchange of information is to guarantee efficient and appropriate protection of the social security rights of mobile citizens in an enlarged European Union of 25 and Iceland, Liechtenstein, Norway and Switzerland² (from this point onwards referred to as the 'countries') At the same time, this changeover should facilitate the work of the social security institutions when they implement the EC rules on social security co-ordination in their daily work.

Concretely, the contractor is expected to

- analyse the current situation,
- to gather the functional requirements of all the countries for reaching the general objective,
- to analyse the constraints,
- to propose three or more architectures that integrate most of these constraints and functionalities coherently without foregoing opportunities available elsewhere,
- to provide cost and benefit analysis of the architectures proposed
- to propose a business model under which the suggested architectures could operate.

This is a complex task. The EC coordination rules on social security are applied to the national social security legislation and administration thereby making the operation of these rules complicated and multi-faceted in all the countries.

National social security systems vary considerably from each other. These variations can extend to structures and basic concepts too. For instance, for entitlement to a social security benefit, the national meaning of 'insured person' or 'insurance period' may be different in differing countries. These differences are multiplied and thereby accentuated at EU level.

Also, the existence and the use of IT tools vary largely from one country to another and from one social security administration to another. If and when electronic databases and applications exist they are mainly developed for national purposes. This means that countries do not keep registers of the information needs of other countries or for the purposes of EC co-ordination.

Furthermore, international communication *per se* is always difficult, as it involves co-operation between partners whose actions, methods and cultural background may be dissimilar, leaving aside problems due to misunderstandings because of the use of different languages.

Data exchange for the implementation of the co-ordination rules is consequently a very complicated issue. Each country has its own information needs and its own way of providing and handling data. The data compilation for the purposes of EC social security coordination consequently takes much longer than for the purposes of the implementation of national legislation.

The proposed strategy has to be based on the following pillars:

1) All cross-border information exchanges and verifications on validity of rights, insurance history, social security institutions, identification of the citizen and payment of benefits and contributions should take place by electronic means between social security institutions.

2) The future IT based implementation of the EC rules on social security co-ordination should endeavour to make use of the existing IT infrastructure at both the national and EU level. This means that the infrastructure to be used should preserve the investments made by countries that are already proceeding to electronic exchanges for the purposes of co-ordination in the field of pensions and health care (i.e. any new solutions need not influence the national choices made so far). At the same time, the future structure should facilitate to the maximum the entrance of those

² By virtue of agreements entered into – the EC coordinating regulations on social security apply.

countries which currently do not take part in electronic exchanges. When reasonable to do so, the information exchanges should be operated across the TESTA network³, and follow the ebXML international standard (and the accompanying UMM methodology).

3) The infrastructure proposed has to be SERVICE-oriented. It may be managed and delivered by a third party, capable of matching the investment capabilities of all countries. The proposed solution should promote electronic exchanges and remove technology barriers (i.e. conversion between some national protocols and formats should be part of the services offered) as far as possible. Moreover, the required solution should offer easy access to the electronic exchanges to any of the countries that might have difficulties in mobilising national resources (i.e. offer low-threshold web-based solutions).

4) All countries will identify 'forwarding point(s)' also known as 'access point(s)' for each social security sector. Each such point has to be capable of receiving and sending cross-border information electronically. A regular e-mail address is the minimum requirement for such a purpose.

5) Beyond these forwarding/access points, domestic structures and methods of information production and exchanges internally will always be determined nationally. The crucial aim is to develop an EU domain which facilitates countries to exchange cross border social security information electronically whether they are domestically doing that already or whether they are completely paper based.

3 Participation

Please note that:

The tender is open to any physical person or legal entity coming within the scope of the Treaties and any other physical person or legal entity from a third country which has concluded with the Communities a specific agreement in the area of public contracts, under the conditions provided for in that agreement.

Where the Multilateral Agreement on Public Contracts concluded within the framework of the WTO applies, the contracts are also open to nationals of States that have ratified this Agreement, under the conditions provided for therein. It should be noted that research and development services, which come under category 8 of Annex I-A of Directive 92/50/EEC, are not covered by this Agreement.

In practice, the participation of applicants from third countries that have concluded a bilateral or multilateral agreement with the Communities in the area of public contracts must be allowed, under the conditions provided for in that agreement. Bids submitted by applicants from third countries that have not concluded such an agreement may be accepted, but may also be rejected.

4 TASKS TO BE PERFORMED BY THE CONTRACTOR

The contractor shall carry out an in-depth analysis on the realisation of the objectives presented above and present a report on a practical strategy to achieve them.

To accomplish its mission, the successful contractor shall:

- analyse the current infrastructure and exchanges (rules, messages, format, etc.). A number of studies have analysed these flows already; they will be made available to the contractor after signing the contract;
- analyse the business flows and more specifically those flows that have resisted electronic exchange;

³ TESTA is the European Community's own private, IP-based network. TESTA offers a telecommunications interconnection platform that responds to the growing need for secure information exchange between European public administrations. It is a European IP network, similar to the Internet in its universal reach, but dedicated to inter-administrative requirements and providing guaranteed performance levels.

- the contractor will organise meetings with representatives of the countries within the Technical Commission on Data Processing in order to analyse the functional requirements of these countries. It may be assumed that some of those requirements partly contradict each other;
- gather and analyse the administrative, legal and budgetary constraints of these countries
- analyse the suggested business models recommended in full - including the benefits and estimated costs to develop, deploy and operate each type of new architecture.

The contractor will document their findings in a strategy report. The report must summarize the study and highlights the key points for decision makers.

Based on these findings, the contracted party will propose three or more architectures that meet the functional requirements of these countries and match their technical and financial capabilities. At this stage, a detailed analysis that will help in the making of the decision on a future architecture is required. Once that decision is taken, if appropriate, development of the future architecture will be the subject of a separate call for tenders. The proposed architectures should include technical elements (e.g. software components) as well as organisational elements (e.g. a business model for running common services). The contracted party will describe the proposed architectures in a report (see section 7).

The contractor will back their proposals with a synthesis of their study results, references for the proposed architectures (i.e. organisation where architectures similar to the those proposed have successfully been deployed) as appropriate, and if needed and feasible, a couple of technical demonstrators⁴ (small prototypes, limited in scope, but that help visualise and demonstrate technical points as well as build confidence in the proposed architectures) where appropriate.

The strategy has to be in line with the Plan of Action of the Technical Commission (annexed to this call for tender). In particular, action 4 of the Plan of Action frames the strategy to be presented. That action reads as follows:

"The existing electronic arrangement must be extended and developed so that information exchanges and verifications necessary for the implementation of the EC social security co-ordination rules may be carried out within it as extensively as possible and in an appropriate way!"

The contractor shall carry out all work under the supervision of and in close collaboration with, Unit E/3 of the Directorate General responsible for Employment, Social Affairs and Equal Opportunities. This unit designates the Project Officer representing the European Commission in its relationship with the contractor. The Project Officer shall approve the project planning and any action within the execution of the contract including those that involve measures to be taken by the European Commission.

The realisation of the studies and analysis:

The carrying out of necessary studies and analysis involves the following proceedings:

- familiarization with infrastructure used for information exchanges for purposes of social security co-ordination in all the countries concerned and with their capacity to join common IT infrastructure (TESTA) and to use the common message format (xml)
- identification of measures to be taken in order to make it possible for relevant social security administrations to use the common architecture both at national and EU level

⁴ Although the demonstrators are useful for understanding and therefore an essential component of the reports, they should not require much work because (1) they need not work with operational data and (2) they can focus on demonstrating only the complex and unfamiliar aspects. The contractor is expected to budget at most for a couple of person-weeks for this aspect.

- discussions with those responsible, (i.e. the official member of the Technical Commission on Data Processing), in all the countries concerned, on the two previous issues
- discussions with the European Commission and its approval for the work

Reporting

The reporting obligations of the contractor are presented in section 7.1 of this Call for tender.

Meetings

The meeting obligations of the contractor are presented in section 7.2 of this call for tender.

Delivery and Acceptance

The Contractor shall provide the Commission with the following deliverables according to the following table:

Del	Deliverable title	Del. date	Type
Del FS0	Project Management and Quality Plan	T0+0,5	Report
Del FS1	Description of the current exchanges	T0 + 4	Report
Del FS2	Functional requirement and constraints	T0 + 4	Report
Del FS3 draft	New architectures proposed (including demonstrators and SLA)(draft)	T0 + 4,5	Report
Del FS3 final	Practical Strategy Report including a proposal for a new architecture (including demonstrators and SLA) (final)	T0+6	Report
Del FS4	Benefit and Cost analysis	T0+6	Report
	Presentation Final Practical Strategy Report to the Commission (Unit E.3)	TO+7	Presentation
	Subsequent presentations to the Technical and Administrative Commissions and other Committees and Commission services as necessary	TO+8-12	Presentations

Acceptance Procedure

The acceptance procedure is intended to check that the work has been executed in compliance with the terms and conditions of the contract, and in particular with the technical specifications. The European Commission approves the deliverables on the basis of the opinion of the Technical Commission on Data Processing.

5 EXPERTISE REQUIRED

In order to carry out the above-mentioned tasks effectively, the contractor has to have a highly qualified team. For more details of the knowledge and experience required, see the point "Selection criteria". Please see Article II.1. "Performance of the contract" and Annex IV "CVs and classification of experts" in the attached blank draft contract.

Requirements:

5.1 Profiles

The contracted party should propose a team that includes a project manager and several team members. The members of the team proposed should possess the relevant organisational and technical qualifications required by the tasks described in the previous sections.

The minimum requirements for the project team to be applied are listed hereafter.

Project manager

- university degree;
- sufficient substantial experience regarding the following areas: international co-operation and organisations, public administration, international electronic data exchanges and system building;
- at least 5 years experience in Project Management in the IT and international context;
- good communication skills;
- good knowledge of the English language⁵;
- knowledge of other official Community languages will be an asset.

As regards the other members of the team, the following general competencies listed hereafter are requested:

- university degree, or equivalent background and experience, in a relevant subject;
- ability to participate in multi-lingual meetings, good communicators;

Besides the general competencies, the Commission expects that the team proposed will gather technical competencies in the following fields, with at least 2-3 years of experience:

- Network Architecture and telecommunication;
- System and business Analysis;
- System Security with a good knowledge of network security requirements and an experience in carrying out high-level security and risk analysis;
- Financial return and cost-benefit calculations, analysis and assessments.

The personnel involved in the contract will be those described in the tender. Any changes will require the agreement of the Commission, which reserves the right to cancel the contract if the persons proposed in the tender are, regardless of cause, not available.

⁵ This requirement does not by any means imply that English has to be the team members' mother tongue

In each phase of the project, the tenderer must specify the profiles and the number of persons that he intends to allocate for the implementation of the contract.

5.2 Technical and Professional competence

The ability of service providers to perform services will be evaluated in particular with regard to the skills, efficiency, experience and reliability of the team proposed.

All tenderers and the relevant members of the consortium (if applicable) should prove that they meet these requirements by the following means:

By describing their educational and professional qualifications and/or those of the firm's managerial staff and, in particular, those of the person or persons responsible for providing the services.

By indicating the technicians or technical bodies involved, especially those responsible for quality control, whether or not they are directly owned by the service provider;

By giving a statement of the service provider's average annual manpower and the number of managerial staff for the last three years;

A description of the tenderer's existing technical infrastructure;

A description of the quality control measures taken by the service provider and of his study and research facilities. This should include certificates issued by independent bodies which attest that the service meets certain quality assurance standards. Other evidence of equivalent quality assurance measures from tenderers who have no access to such certificates, or who have no possibility of obtaining them within the relevant time limits, may be accepted;

An indication of the proportion of the contract which the service provider may intend to sub-contract with references of the sub-contractors(s) and their agreement in writing.

By submitting a tender, the tenderers accept that the Commission may carry out a check on their technical capacities and, if necessary, on their study and research facilities and quality control measures.

6 ESTIMATED TIME SCHEDULE

Overall contract duration will be 12 calendar months. The time schedule for deliverables is found at point 4 "Tasks to be performed by the contractor".

From month 8 until the end of the contract period in month 12, the contractor must ensure their availability for a maximum of 5 working days. The days will be decided on by the Commission and should be budgeted for in the project budget.

Work may not start until after the signature of the contract by both parties, which is expected to take place in the summer of 2006.

7 REPORTING

7.1 Reports

7.1.1 Progress Reporting

The Contractor shall prepare and submit a monthly progress report to the Commission. This report shall include, as a minimum:

- the status of the project;
- the progress realised during the latest month;

- an analysis of any problems experienced and corresponding corrective actions taken or proposed;
- possible proposals for action to be taken by the Commission;

The contractor is to report on progress also at the meetings of the Technical Commission on Data Processing and of the Administrative Commission on Social Security for Migrant Workers taking place during the contract term.

In addition to regular (monthly) reporting referred to above, the Contractor shall produce a detailed Project Management and Quality Plan two weeks after the entry into force of the contract.

7.1.2 Final reporting

A draft Practical Strategy Report should be submitted to the Commission at the latest at the end of month 4,5, including any supplementary comments, suggestions or recommendations judged useful or necessary by the contractor. In addition, the contractor will complete or clarify its analysis as necessary.

The contractor will submit the final Practical Strategy Report to the European Commission at the end of the month 6. In addition to the strategy itself, the Report shall contain a full description of the work carried out including the detailed analysis and working methods leading to the conclusions of the Practical Strategy Report

The paper copy of reports (1 original and 2 copies) shall be sent by regular mail. An electronic copy of the reports shall also be made available in a format agreed with the Commission. Exchange of draft copies as well as other non-formal communications with the Commission DG EMPL project officer shall take place via electronic mail.

All reporting must be done in English.

7.1.3 Presentation of the reports

The draft report may have to be presented to the Technical Commission on Data Processing in its regular meetings (4 such meetings are organised yearly).

The contractor shall present the final Practical Strategy Report to the Technical Commission on Data processing and to the Administrative Commission on social security for migrant workers in their meetings which follow the presentation of the final report to the European Commission (unit E.3). The report may also have to be presented by the contractor to different committees or working groups or other Commission services at the request of the European Commission.

7.2 Meetings

Management meetings shall be organised between the European Commission and the contractor on a monthly basis. Monthly progress and measures to be taken for the execution of the contract will be discussed in these meetings. The Commission will approve or reject the monthly progress reports and any other documents in these meetings.

Additional technical meetings may be organised on an ad-hoc basis as and when required.

The contractor shall write and submit the minutes of such meetings for approval within 1 week.

The contractor may additionally be called on to give presentations and explanations to an Ad-hoc Meeting of the Technical Commission on Data Processing because the European Commission approves the deliverables taking note of the opinion of the Technical Commission on Data Processing (please see also point 6, second paragraph).

All meetings (progress and technical follow-up meetings) with the Commission will be held in Brussels. Meetings for presentation of results will be organised in the Commission's meeting rooms (Borschette Conference Centre).

8 PROJECT MANAGEMENT AND PROGRESS REPORTING

8.1 Project Management

The contractor shall provide the necessary manpower and support for the management and administration of the contract. The contractor shall nominate a Project Manager to have on his/her behalf overall responsibility for the completion of the agreed tasks. The tenderer shall supply the curriculum vitae of the proposed Project Manager. The curriculum vitae and responsibilities of all consultants and other personnel proposed should be included in the tender, and any changes of personnel shall be formally and promptly notified to the Commission for agreement.

8.2 Project Management and Quality Plan

All tenderers must supply a draft overall Project Management and Quality Plan (PMQP). As a minimum, the Project Management and Quality Plan should include details of:

- the tenderer's project organisation;
- the main points of interface with the Commission, and escalation paths in the event of problems;
- a proposed schedule including all milestones, deliverables, review, activities and dependencies for the timely and efficient completion of the contract;
- how the tenderer should implement project/contract administration, including controls to supervise sub-contracts;
- the description of a methodology which should guarantee that the tenderer will successfully complete the tasks identified in the contract;
- details of quality assurance schemes they adhere to, including internationally recognised standards;
- quality control activities and criteria for the quality assessment of the deliverables.

The plan shall be provided two weeks following the entry into force of the contract. The Plan shall be sufficiently detailed to enable the Commission to evaluate progress. The PMQP shall be subject to the approval of the Commission. The Plan shall be updated whenever required for the duration of the contract. Revisions to the plan shall be based on information supplied to the Contractor by the Commission and on the Contractor's own assessment of progress.

9 PAYMENTS AND STANDARD CONTRACT

See Articles I.3, I.4, II.4 and II.5 of the draft contract.

Payments will be made according to the following schedule:

Fees and direct costs

Following the signature of the Contract by the last contracting party, within 30 days of the receipt of a request for pre-financing with a relevant invoice, a **pre-financing** payment equal to 20%% of the total amount of fees and direct costs referred to in Article I.3.1 of the contract shall be made.

An Interim payment will be payable upon written request in the form of a normal invoice by the Contractor submitted along with the **final report FS3 and FS4 in month 6 of the contract** (see schedule of deliverables under point 4). Under no circumstances may the interim payment exceed 60% of the maximum total amount of fees and direct costs specified in Article I.3.1 of the contract.

A **final payment** will be payable upon written request (in the form of a normal invoice) by the Contractor. However, it will not be payable before the end of the period of performance specified in the contract, nor before approval by the Commission of the services rendered.

Reimbursable expenses

Please see Articles I.3.3 and II.7 and Annex III.2.2 "Reimbursements" of the draft contract.

In drawing up the bid, the tenderer should take into account the provisions of this blank draft contract.

10 PRICE

The **total** contract price will not exceed €250.000 (euro two hundred and fifty thousand).

Tenderers should tender for the cost of the whole project. All non-revisable prices shall be expressed in EURO (€) and shall be calculated excluding VAT⁶ (using the conversion rates published in the C series of the *Official Journal of the European Union* on the day when the notice of invitation to tender was published). Details of unit costs and the basis of the calculations under the individual headings must be given. Prices for fees and direct costs must be fixed amounts.

Expenditure other than for fees and direct costs, such as estimated travel and subsistence expenses, must be indicated separately and is reimbursable on receipt by the Commission of **original** supporting documentation, to include receipted invoices, travel documents including tickets, boarding passes, etc.

The format given in Annex III "Remuneration and reimbursable expenses – Breakdown of prices" of the attached blank, draft contract **must** be followed and include:

Fees and direct costs

Fees, expressed in number of person/days and unit price per working day for each Expert proposed per task. The unit prices are expected to cover the Experts' fees and administrative expenses, but do not include the reimbursable expenses foreseen defined below.

Other direct costs (to be specified), if any.

Reimbursable Expenses Foreseen

Travel expenses⁷.

Daily subsistence allowances (DSA's). These cover all the subsistence costs of the Experts who are on mission for short term assignments outside their usual place of work⁸.

⁶ But including all other taxes and/or duties that the contractor might have to pay according to the fiscal legislation of the relevant country, as stated in the Protocol on Privileges and Immunities.

⁷ Travel expenses will be reimbursed, where appropriate, on the basis of the shortest itinerary on production of original supporting documents, including receipts and used tickets, within the following limits (see Article II.7 "Reimbursements" of the draft contract):

- travel by air shall be reimbursed up to the maximum cost of an economy class ticket at the time of the reservation;
- travel by boat or rail shall be reimbursed up to the maximum cost of a first class ticket;
- travel by car shall be reimbursed at the rate of one first class rail ticket for the same journey and on the same day;
- travel outside Community territory shall be reimbursed under the general conditions stated above provided the Commission has given its prior written agreement.

⁸ Agreed per diem rates are to be used for each Member State (see Annex III.2.2.1 of the draft contract).

This estimate should be based on the specifications and should represent the maximum amount of travel and subsistence expenses payable for all the services provided.

Both fees and direct costs and travel expenses, daily subsistence allowances will be considered when comparing prices.

N.B.: The Commission will not reimburse any travel or subsistence costs incurred by the applicant for activities undertaken before the contract is signed, irrespective of the final choice of tender.

11 COMPOSITION OF PARTNERSHIP OR CONSORTIUM

If a partnership or consortium is envisaged, its composition should be specified and the selection criteria as outlined in the tender documents should be detailed to individual members of the consortium. In addition, one of the consortium members must be designated as lead contractor, and must ensure full responsibility towards the Commission as regards both the tender and the contract, should it be awarded to them.

12 EXCLUSION CRITERIA AND SUPPORTING DOCUMENTS

Governed by Article 93 of the Financial Regulation:

1 Applicants or tenderers shall be excluded if:

- (a) they are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations;
- (b) they have been convicted of an offence concerning their professional conduct by a judgement which has the force of *res judicata*;
- (c) they have been guilty of grave professional misconduct proven by any means which the contracting authority can justify;
- (d) they have not fulfilled their obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which they are established or with those of the country of the contracting authority or those of the country where the contract is to be performed;
- (e) they have been the subject of a judgement which has the force of *res judicata* for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Communities' financial interests;
- (f) following another procurement procedure or grant award procedure financed by the Community budget, they have been declared to be in serious breach of contract for failure to comply with their contractual obligations.

2. Applicants or tenderers must certify that they are not in any of the situations listed in paragraph 1 above.

Article 134 of the Implementation Arrangements – Supporting documents

- 1. The contracting authority shall accept, as satisfactory evidence that the candidate or tenderer is not in one of the situations described in points (a), (b) or (e) of Article 93 of the Financial Regulations, production of a recent extract from the judicial record or, failing that, a recent equivalent document issued by a judicial or administrative authority in the country of origin or provenance showing that these requirements are met.
- 2. The contracting authority shall accept, as satisfactory evidence that the candidate or tenderer is not in the situation described in point (d) of Article 93 of the Financial Regulations, a recent certificate issued by the competent authority of the State concerned.

Where no such document or certificate is issued in the country concerned, it may be replaced by a sworn or, failing that, a solemn statement made by the interested party before a judicial or administrative authority, a notary or a qualified professional body in his country of origin or provenance.

3. Depending on the national legislation of the country in which the tenderer or applicant is established, the documents referred to in paragraphs 1 and 2 above shall relate to legal entities and/or physical persons, including, where considered necessary by the awarding authority, company directors or any person with powers of representation, decision-making or control in relation to the tenderer.

Article 94 of the Financial Regulations

Contracts may not be awarded to candidates or tenderers who, during the procurement procedure:

- (a) are subject to a conflict of interest;
- (b) are guilty of misrepresentation in supplying the information required by the contracting authority as a condition of participation in the contract procedure or fail to supply this information.

See Annex 3 (which may be used as a checklist) for the supporting documents accepted by the European Commission to be provided by applicants, tenderers or bidders.

Any bid not including the supporting documents provided for in this Annex will be excluded.

A written self-declaration by the candidate that he is not in the situation described by article 93 § 1. a), b), d) and e) (see above) will **not be** accepted.

13 SELECTION CRITERIA

The **selection of offers** will be carried out in accordance with the following criteria:

Sound financial position of the tenderers. Tenderers will be required to demonstrate their financial status by presenting their balance sheets and their profit and loss statements for the last three financial years⁹, including total turnover and turnover relating to services similar to those covered by this call for tenders for the past three financial years.

The Commission reserves the right to request any other document enabling it to verify the tenderer's economic and financial capacity.

Experience in project management:

Proven 5 year professional experience in the international project management, with the ability to work in a highly culturally and linguistically diverse environment;

Proven 2-3 year professional experience in the technical field concerned;

Preparation, negotiation and implementation of contracts: this requires the ability to assess quality and cost-effectiveness and sound and efficient management capabilities;

Good interpersonal and oral communication skills for regular liaison with the steering committee experts and the Commission Services and to provide presentations at meetings;

⁹ Interim accounts for the quarter preceding that in which this notice has been published should be provided if the full accounts for the past financial year are not yet available.

Knowledge of languages:

Oral and written communications skills are required in English.

Technical experience of the proposed team:

Proven professional experience related to the profiles described in the chapter 5:

Project managing

Quality consultancy

Network Construction

Telematic Communication

System Analysing

Business analysing

System Security Analysis

Economic and Financial analysis

The assessment of the experience of tenderers will be carried out by evaluating them on the basis of the following additional selection criteria:

	Additional Selection criteria
1.	Experiences on social security, on working in the international context and on public administration
2	Experiences and proven analytical skills network building, on international data exchanges and financial assessments

14 AWARD CRITERIA

No	Award criteria	Weighting (max. points)
1.	Clarity and overall quality of the tender and understanding of the work to be performed	40
2.	Appropriateness of the composition of the team, of the infrastructure and of the support that are made available to meet the objectives of the work	60
Total points		100

Each offer will be evaluated by the degree to which it fulfils the requirements of the call for tenders and provides adequate solutions for the tasks laid out herein.

It should be noted that the contract will **not** be awarded to a tenderer who receives less than 70 %.

Final Evaluation

	<i>Total Quality Points/Price</i>
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The contract will be awarded to the most cost-effective offer (“best value for money”). The total score obtained by the offer will be compared to its **price** and the contract will be awarded to the most cost-effective tender on the basis of the quality points/price ratio.

Evaluation of the offers will be carried out by an Evaluation Committee which shall be appointed by the Authorising Officer. The Committee shall be composed of at least three persons representing at least two organisational entities within the European Commission with no hierarchical link between them. To avoid any conflict of interests, those persons shall be subject to the obligations laid down in Article 52 of the Financial Regulation.

Initiation of a tendering procedure imposes no obligation on the Commission to award the contract. The Commission shall not be liable for any compensation with respect to tenderers whose tenders have not been accepted. Nor shall it be so liable if it decides not to award the contract.

15 RESPONSE TO THE CALL FOR TENDERS

As explained above, the contractor should conduct a feasibility study and propose several architectures that will enable the community to achieve its objective (paperless exchange by 2009) while taking into account the needs of the countries.

15.1 General organisation

Given the overall timeframe (2009), the study should be conducted over a twelve month mission , **with the major deliverables submitted by the end of month seven**. During the remaining period the contractor and his team will remain available for a maximum of 5 working days to attend meetings or to provide further analysis or clarification etc., as and when requested by the Commission.

The contractor is expected to propose a dedicated team for the duration of the mission. A small team (3 to 5 people, including support) might be the most appropriate but different suggestions may also be made. Given the timeframe the team should be primarily focused on this mission throughout the first seven months of the contract period.

Strong technical expertise is expected from the team members including the ability to analyse complex requirements in a diverse, multi-cultural environment and propose sound, effective technical solutions.

Since the analysis will require meeting with countries throughout Europe, English will be the working language. However Europe is a multi-lingual environment and knowledge of one or more of the languages of the European Union will be considered an asset.

To analyse their requirements the contractor will need to meet with all countries and may decide to use, for example, virtual meetings, other modes of communication or actual travel to the countries, if necessary. Where such travel is foreseen by the contractor, the cost of attending these meetings should be included in the project budget.

Based on its initial meetings, the contractor should prepare more detailed interviews and questionnaires and start a second round of meetings with the countries.

The contractor must actively prepare these meetings by providing an agenda (at least one week in advance), reviewing the documentation that the countries may send (documentation collected by the contractor), in sending questionnaires/inquiries in advance.

Regarding deliverable FS1, each country must be given a chance to review the description of its own part.

The goal of the mission is to enable decisions to be made on the future architecture and organisation of electronic data exchanges for the co-ordination of social security at EU level. Formally the deliverables will take the form of a set of reports and, possibly, technical demonstrations to help decision makers understand the proposed architecture(s) as well as their pros and cons. **It is crucial that the report be concise and readable.** Practical information is required and the reader should not be drowned in a sea of acronyms.

The contractor is expected to demonstrate their ability to provide concise information and clear benefits analysis in the answer to this call.

15.2 Response

The contractor is expected to provide the following information in his or her response to this call for tender:

- the composition of team, including the resume of the team members (which should not be in excess of three pages), their specific field of expertise and their role in the team;
- whether the team members are employee of the contractor or subcontractors;
- proposed meeting assignments with the countries;
- if subcontractors are part of the team, a letter from them stating that they will make themselves available for the duration of the mission
- the contractor must warrant that it will not change the proposed team unless such a change has been pre-approved by the Commission;
- proposed schedule highlighting the milestones of the project, the deliverables;
- a description of how the contractor plans to organise this mission and the methodology he intends to follow;
- a description of the experience of the contractor in similar missions, including appropriate referrals;
- the experience of the team members with the technology currently deployed by the social security administrations as well as their experience with the technologies selected for the future architecture (this information can be provided through the resumes);
- a demonstration of the ability to synthesise information for decision makers;
- any other information that will help the Commission analyse the offer;
- a proposed page count for the four deliverables;

It is recommended that the response to the substantive part of this call for tenders, including appendices, does not exceed 75 pages as long responses do not demonstrate the ability to synthesise complex problems.

16 CONTENT AND PRESENTATION OF THE BIDS

16.1 Tenders must include:

- all information and documents necessary to enable the Commission to appraise the bid on the basis of the selection and award criteria (see points 13 and 14 above);
- a bank ID form duly completed and stamped and signed by the bank;
- a "legal entity" form duly completed;
- the price;
- the detailed CVs of the proposed experts;
- the name and function of the contractor's legal representative (i.e. the person authorised to act - on behalf of the contractor in any legal dealings with third parties);
- proof of eligibility: tenderers must indicate the State in which they have their registered office or are established, providing the necessary supporting documents in accordance with their national law.

16.2 Presentation of bids

Bids must be submitted in triplicate (i.e. one original and two copies).

They must include all the information required by the Commission.

They must be clear and concise.

They must be signed by the legal representative. **Unsigned bids will be rejected.**

They must be submitted in accordance with the specific requirements of the invitation to tender, within the deadlines laid down.



EUROPEAN COMMISSION
EMPLOYMENT, SOCIAL AFFAIRS & EQUAL OPPORTUNITIES

Social Protection and Social Integration
Free movement of workers and co-ordination of social security schemes

CALL FOR TENDERS VT/2006/025

Feasibility study

**"INTENSIFICATION OF DATA EXCHANGE PROCESSES BETWEEN SOCIAL
SECURITY INSTITUTIONS**

**FOR CO-ORDINATION OF SOCIAL SECURITY SCHEMES
BY INCREASING THE USE OF ELECTRONIC MEANS "**

Part II

TECHNICAL SPECIFICATIONS

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1. Constraints

As explained in the administrative part of this call for tenders, one of the goals of this call is to identify and analyse the requirements of an enlarged European Union of 25 and Iceland, Liechtenstein, Norway and Switzerland¹ for an IT -based implementation of the EC rules on social security co-ordination. This section and the next sections explore some of the issues surrounding constraints.

Tenderers are expected to demonstrate experience in dealing with environments of similar complexity and/or environments facing similar sets of constraints in their responses.

1.1. Co-ordination

The first constraint of the project finds its source in the essence of the co-ordination of social security systems as drawn up by (EEC) Regulations 1408/71 and 574/72. These Regulations do not harmonise but co-ordinate the social security schemes of the Member States of the European Union², i.e. they do not replace the different national social security systems by a single European scheme. This means that each country retains its own laws on social security.

Co-ordination means that the social security legislation of the country has to protect particularly the social security rights of citizens moving between countries, for example when they travel, change their country of residency or work in a different country to the one they live in.

In practice the social security legislations of the countries are very different from one another. Obviously it also means that the data being collected for social security is different in every country and that the procedures (and the organisations supporting them) are also different.

Although ultimately they aim for the same result (offering the highest level of social protection that Europe is famous for), the legislation and procedures are different and sometimes conflicting.

Although it is rare, it is possible that two countries take different decisions on the basis of identical data. Some countries also need more precise data than others to be able to take decisions.

Another example of the differences in legislation between countries is that some data that is considered as a requirement for processing a case in some countries is not necessary in other countries, causing different requirements in terms of security and confidentiality.

¹ By virtue of agreements entered into – the EC co-ordinating regulations on social security apply.

² As noted before – these rules equally apply to Iceland, Liechtenstein, Norway and Switzerland

It is worth noting that the legal framework and the disparities between countries will not change for the duration of the project.

The principle of co-ordinating rather than harmonising has led to the great disparity between the technical infrastructures developed and set up by countries. The technical infrastructures in place are heterogeneous and constitute one of the major difficulties for the exchanges. To cope with this reality, early in the Eighties the TESS program turned towards the international standards (X25, X400, EDIFACT, etc.). These standards were complex, heavy and very expensive to implement and to maintain.

Another difficulty is that the migrant population represents about 2 to 3 percent of the total exchanges in the domestic social security field. Countries were reluctant to invest large resources into what amounts to a small proportion of their caseload. As a consequence of continued lack of technical and human resources, the outcome after many years has only produced weak participation by countries in electronic exchange of social security information at European level.

1.2. *Batch exchanges*

Currently some countries concerned exchange data over the TESTA network which is an IP network. The FTP protocol is used predominantly although you will find traces of SMTP and HTTP.

Most of the information exchange is done in batch mode and point-to-point (transfer from a few hundred to several thousands E forms). The data is formatted in fixed-length files, in EDIFACT or in XML (based on ebXML standard and methodology). Some of the exchanges have been operational for several years, others are still being piloted. Functionally, the batch exchanges are modelled after the paper flow.

It goes without saying that the proposed architectures must not reduce the volume of data exchanged electronically. Therefore the architectures must take into account the existing exchanges and try to improve the current architectures, the rules, etc. for increasing the number of countries exchanging information electronically.

1.3. *Secondly the architectures should be such that they limit the effort to be made by countries that currently do not participate in electronic exchanges. Web-based exchanges*

Alongside the batch exchange, some countries have developed web-based access (currently HTML, not web services) to their databases. In practice, the clerks use a browser to access data directly from the databases of the other countries. This practice replaces the exchange of E-forms entirely. (no need for batch exchanges in this approach.)

The contracted party should include this approach in its work and review whether it makes sense and if it is legally feasible to expand this solution to more exchanges.

It must be said that this has led to some interest, amongst certain countries, to base certain new developments on a service-oriented architecture. This should also be taken into account for the study.

1.4. General constraints and opportunities

The contractor will need to explore the legal, administrative and financial constraints as part of the functional analysis, based on the input from all the countries. One can identify some of the requirements that the contracted party is invited to take into consideration. The general constraints and opportunities are as follows:

- to enable States that are already exchanging to continue to do so as before and to minimise changes and disruptions in their daily business ;
- to use the TESTA network for the communication infrastructure and the IDABC recommendations (see the European Interoperability Framework – EIF) ;
- to analyse the eLink service provided by IDABC as a horizontal measure and evaluate up to what point the middleware proposed as an IDABC service could not become the kernel of the architectures proposed ;
- to examine other Commission Information Systems like CCN/CSI³ network to compare and contrast with the networks noted above;
- to support all the working languages of the Union ;
- to take into account innovative developments but ensure that the infrastructure proposed is stable and the technologies are tested and proven.

2. Requirements

As stated previously, the contracted party is expected to conduct an analysis of the countries' needs and requirements. To help frame the mission, a verbal survey has been carried out to identify the most visible of the requirements. This list is not complete but it should give an understanding of the situation in the TESS community.

2.1. General requirements

Taking into account the current situation, the technical and the security constraints, the contracted party is invited to propose one or several potential infrastructures that match the functional requirements.

Since there are significant differences between countries and since those differences require very significant investments from those countries, there is a growing interest amongst them in sharing some or all of these investments. Ultimately they would obtain the required functionalities from a shared service provider.

³ Data (on taxation of savings income in the form of interest payments) encrypted between CCN gateways is forwarded through CCN-Mail 2 and is exchanged between countries. The system is already used in the field of customs and indirect taxation for the forwarding of confidential information. The Commission has no access to the data exchanged via CCN-Mail 2 for other purposes than for guaranteeing, from a technical point of view, the proper operational functioning, the maintenance and the development of the CCN/CSI network.

Historically this has been the case for the network connectivity that has been provided by the TESTA network operated by a third party: Equant. However, today, the services provided by TESTA to the TESS community address the lowest level of the communication stack only (e.g. network connectivity, basic hosting, etc.). Although it raises issues in terms of Service-Level Agreement (SLA), the experience has been globally positive. Therefore some States are interested in extending it to higher-level services (e.g. message mapping, security, protocol conversion, etc.).

Moreover, the shared infrastructure could offer low threshold entry-level services (e.g. through a simple web-based interface or a lightweight client) for countries that have very few exchanges or to help them get started. Technically, there is a strong interest in the adoption of a service-oriented architecture (ebXML, Web Services and the like).

There are however challenges in setting up such an infrastructure (e.g. legal requirements to protect privileged data, financing). The contractor is expected to address these challenges in the strategy report.

Exactly what services should be provided and how they should be provided remains open at this stage. Some business models for the service provider include a consortium of countries, a third-party provider, a mix of the two, the use of other existing Commission infrastructure on electronic exchange of information, the use of IDABC-provided services, and more. For services provided by IDABC (see <http://www.europa.eu.int/idabc> horizontal actions and measures). The contracted party will analyse whether it is practical to set up a shared infrastructure, what the pros and cons would be, which services are needed, which business model should be adopted, what is needed in terms of SLA and other practical considerations.

The following picture gives an overview of what the infrastructure could look like. Again this is just an example to illustrate the current line of thinking within the Technical Commission on Data Processing but it must be analysed further.

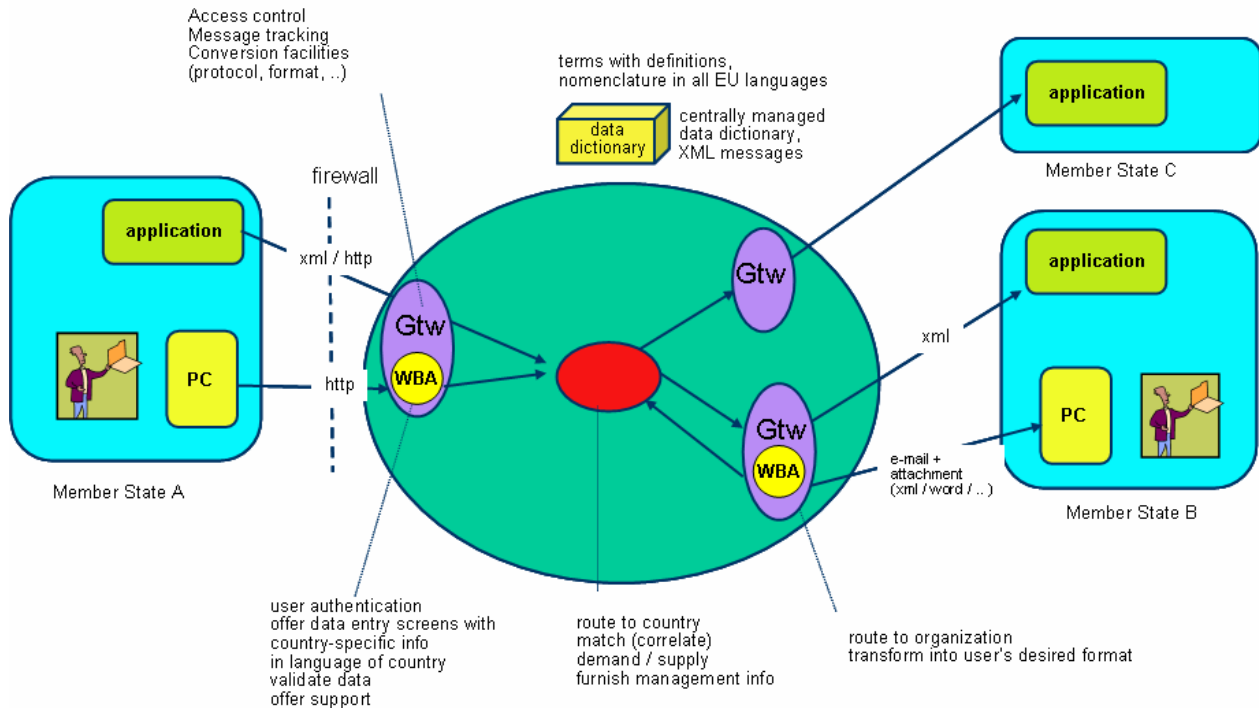


Fig 1: example of the future TESS architecture

Therefore the architectures proposed are expected to cover at least the two following aspects:

- on the technical level, the contracted party will propose technical solutions, standards, protocols and the like that should be implemented;
- on the organisational level, the contracted party should propose a business model (consortium of countries, IDABC-provided services- see <http://www.europa.eu.int/idabc> – horizontal actions and measures, third-party or some other).

The contracted party should describe both the technical (which protocols, which services, what software and the like) and the organisational decisions (which business model, which organisation, where to run a given service and the like) behind the proposed architectures.

All proposals must adhere to the PEGS architectural framework from IDABC and other EU standards and should use common EU infrastructure already in place.

2.2. Functional Requirements

Hereafter are listed general requirements commonly identified by the TESS community. These requirements must be further analysed and detailed by the contracted party but they have also to be matched with the functional requirements and the constraints that will be expressed by the countries during the inquiry.

Again it is worth stressing that this list is not complete. It is only included to help would-be contractors understand the scope and requirements of the proposed study.

As explained previously, the contracted party is to:

(1) complete the list based on the interview with the countries. The complete list should include all technical, legal and organisational requirements of the countries;

(2) prioritize the list. It is understood within the community that some of these requirements are contradictory and that a solution that will address them all would be, at minimum costly and probably impractical. The contracted party must analyse these requirements, study their costs and implications to help countries decide which ones must give. Therefore also some functional requirements should be proposed as option and quoted.

2.2.1. Reliable message transfer

The infrastructure proposed should enable the provision of reliable messaging services of a measurable quality with a required minimum service level⁴.

2.2.2. Routing service

The system must be capable of routing the messages towards the correct recipients.

2.2.3. Secure message transfer

The services should be provided in a secure manner employing the necessary infrastructure for this. This includes the provision of digital signatures, encryption, etc.

Moreover one is looking for a Secure Service which, taking into consideration the individual technical, business and legislative requirements of the countries⁵ concerned, is formally accredited for the processing and relay of content marked Restricted (EU-Restraint)

2.2.4. Large file transfer

The infrastructure must be capable of transferring a large volume of data. Some batch exchanges currently exceed 100 Mb.

2.2.5. Notification service (message tracking) and monitoring

The infrastructure should ideally inform the sender whether the message has been delivered to the final recipient or not. The study should determine the level of detail required, including whether the need is for communication or application level tracking.

Also statistics are maintained on the data exchanged and the date correlated with quality measurements. The infrastructure must be capable of maintaining this correlation for users.

⁴ As regard the SLA, the contractor is required to collect countries' requirements related to the reliability, availability and performance of the entire service. The key issue here will be the level of availability required as regard to the nature and the volume of the information exchanged. The SLA derived from the countries' requirements should be described in FS3.

⁵ Some countries must by law comply to minimum level of security

2.2.6. Access control

The exchange takes place between administrations and access to the information must be restricted. The study will determine the level of restriction required (person-level, institution-level or country-level).

2.2.7. Application to application (A2A) communications

The main requirement regarding the new infrastructure is the provision of application to application communications between the countries. Currently the communication is asynchronous and, although synchronous communication may be in order in the future, asynchronous communication is still justified for a large portion of the data.

2.2.8. Low threshold access

It may be desirable to offer a low-cost solution to access the service. This would enable the countries to exchange electronic information with minimal investments.

2.2.9. Protocol conversion facilities

The infrastructure must be capable of converting communication protocols. The idea is to leave each country to select the communication protocol among a predetermined set of protocols supported (smtp, ftp, http, etc.). The system must be capable for example of receiving data in smtp, because this is the protocol selected by the sender, and of delivering these data through ftp or http.

2.2.10. Message format conversion facilities

Even if the exchange format within the system must be XML, the same requirement applied for the format of the messages exchanged. Among a predetermined set of formats (the possible formats should be derived from the analysis of each country's requirements) the system must be capable of receiving message within a given format and deliver it into another.

2.2.11. Data mapping service

Within the current electronic exchanges, it appears that one of the most brutal difficulties resides in the mapping of the data between the sender and the recipient.

As discussed previously, the business processes of each country are unique and reflect the requirements of its national legislation. Therefore, even when a common data structure and a common representation language has been agreed upon, it remains that changes in procedures mean that the actual transactions are country-specific.

So one may need to change a slightly different set of data whether it talks to partner A or B. The cost of mapping between one's internal databases is therefore multiplied. The proposed architecture must address this problem.

2.2.12. Reliable Statistic service

The system must be capable of holding statistics regarding the exchanges. The statistics services must record all the traffic (delivery, non-delivery) between countries, must record all the incidents, etc..

2.2.13. Development and maintenance of XML messages and Code Lists

The central system (the third party) will be in charge of developing new messages and maintaining old ones.

It must be noted that all interface components between the proposed architectures and the countries must be detailed and described comprehensively (e.g. countries must directly see the consequences of the European architecture on their own)

3. Description of the current situation

3.1. Pension sector (Build 3+/Build 4)

- Exchange infrastructure: FTP via one ftp server where files are submitted for the recipients and SMTP via TESTA (standard mail routing)
- format exchange : EDIFACT (D117- E501, E502, E551) – (D118 – E503, E505) and XML (D117: E501, E502, E551 – D156: E202, E203, E204, E205, E207, E210)
- Security: between some countries, interchanges are encrypted using “pgp” encryption mechanism
- Potential number of forms concerned: about 20 e-forms

3.2. Healthcare sector (Build 5)

- Exchange infrastructure: FTP via one ftp server where files are submitted for the recipients.
- format exchange : Magnetic Tape Format (MTF) (E125 and E127)
- Security: between some countries, interchanges before being sent are encrypted using “pgp” encryption mechanism
- Potential number of forms concerned: about 25 e-forms

3.3. Family Benefit sector

- No exchanges for the time being
- Potential number of forms concerned: about 13 e-forms

3.4. Unemployment sector

- No exchanges for the time being
- Potential number of forms concerned: about 3 e-forms

3.5. Posting

- Bilateral pilot are in preparation
- Exchange infrastructure: SMTP.
- Format exchange: XML (E101)
- Potential number of forms concerned: about 3 e-forms

For a complete list of the E Forms – see

http://europa.eu.int/comm/employment_social/social_security_schemes/docs_en.htm

**AIMING AT EFFICIENT PROTECTION OF THE SOCIAL
SECURITY RIGHTS OF MOBILE CITIZENS**

**PLAN OF ACTION TO INTENSIFY DATA EXCHANGE
PROCESSES BETWEEN SOCIAL SECURITY
INSTITUTIONS BY INCREASING THE USE OF
ELECTRONIC MEANS**

**ADOPTED BY THE ADMINISTRATIVE COMMISSION
ON SOCIAL SECURITY FOR MIGRANT WORKERS ON
14th OF DECEMBER 2004**

Protection of the social security rights of mobile citizens in accordance with EC rules for social security coordination is based on a permanent and complex information flow between social security institutions of the Member States. The bulk of these exchanges, which are necessary for the implementation of EC social security coordination rules, are effected by using paper E forms which are sent from one institution to another via traditional post or the citizen concerned.

Several factors make the use of the paper forms complicated and consequently hamper the protection of social security rights of mobile citizens. Among other things, they are still regularly completed manually, do not fit well with the multilingual nature of the EU and do not correspond in an appropriate way to the need for regular updating resulting mainly from continuous changes in social security legislation at both national and EC level. These factors create misunderstandings and ambiguities, which essentially limits the usability of these forms. Consequently, many E forms are regularly misused or even rejected.

The enlargement of the European Union decreases the usability of the E forms further. The social security rights of mobile citizens are difficult to protect in an appropriate way in a situation where information exchanges and verifications between thousands of social security institutions are carried out by paper documents appearing in 20 different linguistic versions. The risk of chaos is rather imminent.

Wishing to protect the rights of mobile citizens as efficiently as possible and in line with high-level political objectives of the European Union, the Technical Commission on Data Processing hereby gives its Reasoned Opinion in order to modernise and speed up the information exchange methods between the Member States, alongside the modernisation of the EC social security coordination rules. As IT arrangements provide efficient solutions to most challenges linked to the use of paper E forms, the Technical Commission considers that it is more than justified and reasonable to replace paper-based information exchanges by IT-based procedures. In particular, IT-based exchanges would permit:

- increased use of the data;
- efficient verification of the data;
- faster processing;
- a more flexible and easier interface between different systems and
- improved knowledge on the quality of the data.

Consequently, this Plan of Action contains a concrete and realisable proposal to change over to automatic proceedings. It identifies:

- the reasons for marginal use of IT technology for social security coordination purposes so far (under "Challenges of automation");
- general starting points necessary for introduction of electronic exchanges in high volume ("General principles of implementation");
- main features of the electronic exchange arrangement to be striven for ("Electronic Arrangement");
- concrete actions to be taken to set up that electronic arrangement ("Actions to be taken");
- timetable for the completion of those actions ("Timetable");
- responsibilities of different players for the implementation of those actions ("Responsibilities and monitoring");
- some supplementary measures to be taken by the Member States if they consider it appropriate ("Recommendations").

It is to be noted that the Plan of Action covers all the social security fields. However, two coordination sectors, namely health care and pensions, are pioneers as far as electronic exchanges are concerned. These two sectors being examples, the actions proposed are to be applied on the basis of the particular needs and context in each sector.

CHALLENGES OF AUTOMATION

During the first half of 2004, the Technical Commission on Data Processing carried out an in-depth analysis on the advisability and rationality of using increasingly electronic means to carry out the information exchanges necessary for implementation of social security coordination. The Technical Commission's analysis focused particularly on the reasons behind the marginal use of modern information technology to perform these information exchanges. The results and conclusions of that analysis are presented in detail in a separate background report annexed to this Plan of Action.

According to the analysis, the main reasons for the scant use of IT may be identified as the following:

- 1) No overall strategic decision has been taken to implement EC social security rules by electronic-based proceedings.
- 2) Paper E forms have become the standard way of exchanging information between social security institutions.
- 3) Sufficient financial resources have not been allocated to change over to IT-based information exchanges.
- 4) Extensive IT equipment is not available in all relevant social security institutions to proceed via electronic means.

- 5) The complicated nature of social security information imposes particular requirements for electronic infrastructure to be used.
- 6) Sufficient information and knowledge has not always been available in social security institutions to perform information exchanges by electronic means.

GENERAL PRINCIPLES OF IMPLEMENTATION

On the basis of its technical expertise and the experience of the Member States' social security institutions involved in the implementation of social security coordination rules, the Technical Commission is convinced that, in order to react to the above conclusions, IT-based information exchanges should be effected starting from the following:

- 1) A unanimous decision of the Member States, supported by the European Commission, is needed on the approval of the starting points, objectives and actions proposed in this Plan of Action.
- 2) Electronic exchanges must be recognised as being standardised and the most appropriate, modern and efficient way of protecting the social security rights of mobile citizens.
- 3) The European Commission should bear financial costs resulting from the introduction of the EU-level infrastructure in keeping with common interest. Automation of information exchanges should be based on cost-benefit and economic efficiency analysis.
- 4) The European Commission must ensure, at EU level, the availability of the IT arrangement and services needed for electronic information exchanges. The arrangement and services will be developed on the basis of the existing IT arrangement for information exchanges between administrations of the Member States. This arrangement covers only information exchanges for EC coordination purposes. The Member States themselves will determine their contact points for this arrangement on the basis of their wishes, capacities and needs.
- 5) The IT arrangement to be used has to be adaptable to changes in the data set to be exchanged.
- 6) The Technical Commission on Data Processing acts as the EU-level information point for electronic exchanges in the field of social security coordination. The members of the Technical Commission must supply the necessary information on these exchanges to their national administrations. At the same time it is the responsibility of each social security institution to have staff capable of coping with their EC law obligations.

ELECTRONIC ARRANGEMENT

This Plan of Action seeks to achieve the following automated arrangement:

*** information content**

- As a primary rule, all cross-border information exchanges and verifications on validity of rights, insurance history, social security institutions, identification of the citizen and payment of benefits and contributions will take place by electronic means between social security institutions.
- All mobile citizens must be electronically identifiable. Otherwise it is impossible to efficiently protect their social security rights by using a common IT infrastructure. Electronic identification is also necessary for the verification of the validity of social insurance, for financial transfers, including invoicing of the competent institutions for the benefits received in other Member States at its expense and pension payments, and for the compilation of all the citizen's insurance periods in different Member States.

*** key to the information**

The insured person has to be able to communicate the above-mentioned identification code in order to aggregate insurance periods accumulated in different Member States and to prove his right to receive social security benefits outside his competent State. This code will serve as the key for tracing his competent institutions and for starting the information exchanges between social security institutions concerning the protection of his social security rights.

*** electronic format and network**

As a primary rule, exchanges will take place on the basis of developing existing IT infrastructures, i.e. by using the TESTA network and an agreed exchange format such as (retuned) XML format.

*** contact points**

- Each Member State will identify "forwarding point(s)" for each social security sector (at least one per sector). Each forwarding point has to be capable of receiving and sending cross-border information electronically. A regular e-mail address is the minimum requirement for such a purpose.
- Domestic structures and method of information production and exchanges will be determined nationally beyond the forwarding points.

- All competent social security institutions and forwarding points will be given an institution code which serves as the key to trace the institution (i.e. to contact it electronically via the forwarding point, for example) when needed.

* behaviour within the network

Social security institutions have to confirm reception of information and the request for information sent by the social security institution of another Member State within two working days. This confirmation has to take place by electronic means.

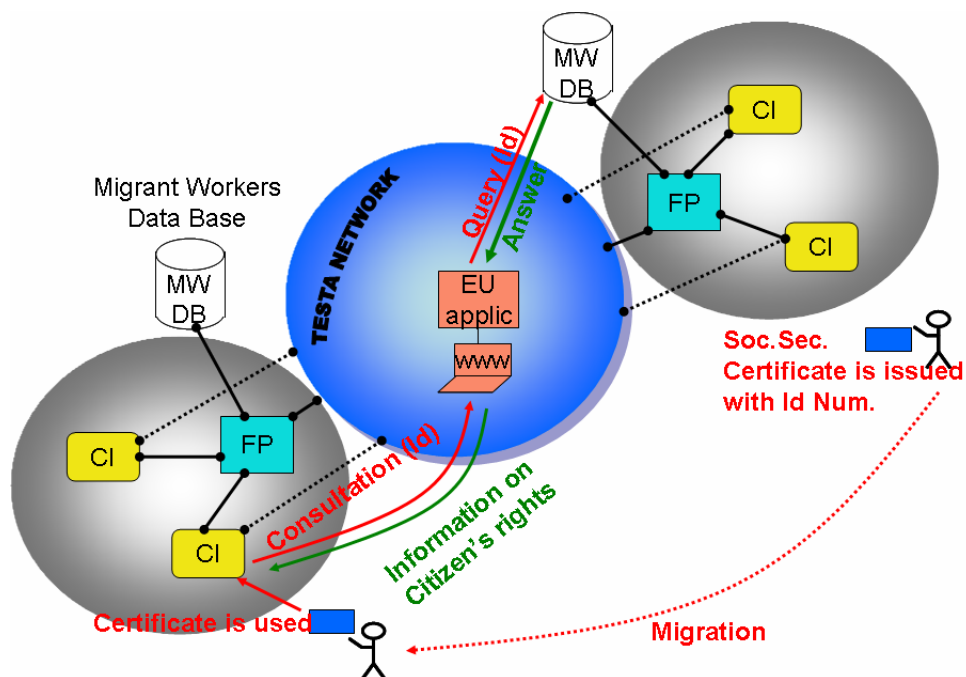


Figure: IT arrangement to be used for information exchanges and verifications.

Simplistic explanation:

- 1) A citizen is leaving his competent State for another Member State.
- 2) He would go to his competent institution to receive a certificate of his social security rights during the stay in that country in those cases where he does so today.

- 3) Unlike today, he will not receive any portable E form but a code, possibly printed on a particular certificate.
- 4) The competent institution electronically registers the information on these entitlements accessible through the use of that code and is responsible for the updating that information so that they will be on-line permanently in real time.
- 5) When the citizen makes use of his social security rights in another Member State, he presents his code to the relevant bodies in that country, and his exact rights may be verified by using the code and the electronic structure shown above, which is a retuned and enhanced version of the existing BUILD structure based on the TESTA and for example XML structure.
- 6) Although the protection of mobile citizens' pension rights does not involve portable forms, the information exchanges between pension institutions should also be based on the use of the above electronic infrastructure on the basis of currently existing circuits.

ACTIONS TO BE TAKEN

The following concrete actions should be taken in order to put the arrangement described above into practice:

Action 1: Electronic exchanges must be recognised as being the standard way of proceeding whenever decisions on the content of such exchanges are taken!

Explanation:
Electronic exchanges have to be given priority over paper exchanges. All decisions of the Administrative Commission concerning information exchanges between social security institutions for the application of the coordination rules should recognise electronic exchanges as the standard way of proceeding. Those decisions should only determine the set of data to be exchanged and not a paper layout.

Action 2: The portable E forms must be replaced by an electronic solution!

Explanation:
Instead of several different portable E forms, the mobile citizen must not be expected to carry more than one certificate to be able to prove his rights to social security benefits in any Member State during a temporary stay there. This might be done by using a simple certificate containing an access code to electronically registered real-time information on his entitlements. Special attention should be paid to electronic information exchanges that will take place between health care providers and social security institutions when the <i>electronic</i> European Health Insurance Card is used.

Action 3: For the purposes of protection of social security rights, every insured person should be identifiable at EU level!

Explanation:
The insured person must be identified so that his rights can be correctly protected. As a primary rule, for this purpose an identifier might be provided to the mobile citizen when (a) he receives the entitlement certificate to be presented in other Member States for the first time or (b) institutions start to collect international information on his social security rights for the application of the coordination rules.

Action 4: The existing electronic arrangement must be extended and developed so that information exchanges and verifications necessary for the implementation of the EC social security coordination rules may be carried out within it as extensively as possible and in an appropriate way!

Explanation:
The new infrastructure must preserve the investments made within the pilot groups by the Member States that are already participating in the electronic exchanges (i.e. any new solutions should not influence the national choices made so far). It should facilitate the entrance of the Member States which currently do not take part in the electronic exchanges. The information exchanges are to be operated therefore across the TESTA network and in XML message format. The existing electronic exchange structure used in the field of pensions and health care will serve as trailblazers. The infrastructure proposed should be SERVICE-oriented and could be managed and delivered by a third party, capable of matching the investment capabilities of all Member States. The proposed solution should promote electronic exchanges and remove technology barriers for Member States (i.e. conversion between some national protocols and formats should be part of the services offered) as far as possible. Moreover, the required solution should offer easy access to the electronic exchanges to any Member State that might have difficulties in mobilising national resources (i.e. offer low-threshold web-based solutions). The third party could also take care of the following activities: – Creation of a repository that will contain elementary items of information to be exchanged (i.e. core components, business information entities). – Definition of the business processes (i.e. a description of the rules for information exchanges, different possible scenarios). – Development of the XML messages according to the standard selected. – Organisation of the distribution and maintenance of the messages. – Maintenance of the documentation and organisation of training. – Participation in the standardisation process on behalf of Social Security. – Definition of the data protection aspects. The technical aspects of this infrastructure must be further discussed and defined further by sectoral groups of the Technical Commission and approved by the Technical Commission. After this approval, the next step for the implementation of such architecture will be a feasibility study with the aim of examining in detail the practical, technical and management aspects.

Action 5: All relevant social security institutions must be given an electronic identity!

Explanation:
All institutions that directly send or receive information to or from social security institutions of other Member States for EC-level coordination purposes need to have an electronic identity. As minimum, this electronic identity provides an institution code and e-mail address. Each Member State will define at what level this electronic contact point will be found within its national system. The identified institutions ("forwarding points") have to be able to act electronically as regards information and information requests from social security institutions of other Member States.
To guarantee easy and correct identification of these institutions, a repository will be created storing the above-mentioned information and the technical information defined in action 4.

TIMETABLE

The feasibility studies, referred to in action 4, should be finalised before the end of 2005.

RESPONSIBILITIES AND MONITORING

The implementation of the Plan of Action must involve and be based the following activities, measures and participation of the players mentioned:

*** European Commission**

- supports the automation project at EU level;
- ensures that decisions on information exchanges, approved by the Administrative Commission, give priority to electronic exchanges;
- ensures the compatibility and the connections with other information exchange, information verification and eService arrangements and projects between public administrations of the Member States for which it is responsible;
- consistent with common interest objectives, bears EU-level financial costs resulting from the introduction of the electronic arrangement and
- when proposing decisions on information exchanges in the field of social security, ensures that the basic conditions for electronic data exchange are promoted by specifying for each such decision:
 - 1) the data (data set) to be transmitted or used;
 - 2) information which is absolutely necessary for those transmissions (compulsory data fields);
 - 3) processes to be implemented;

- 4) standardised definitions and
- 5) sufficient time for completion.

*** Member States (including Social Security Institutions)**

- must indicate their contact points for the preparation of the automation process;
- must nominate process responsible (preferably forwarding points) for each social security sector.

*** Technical Commission on Data Processing**

- will be responsible for overall monitoring and strategic control of the electronification process;
- will draw up a half-yearly progress report concerning this Plan of Action, in which the results of the implementation of each of the above actions will be presented;
- will further redefine the above actions as appropriate;
- will present its report to the Administrative Commission;
- will instruct existing ad hoc working groups in the field of pensions and health care to implement the above actions in their respective fields;
- will ask two new sector working groups to be responsible for the actions in the fields of family benefits and unemployment respectively.

SUPPLEMENTARY RECOMMENDATIONS

- Even if Member States may proceed internally at their own pace it is recommended that they process, store and produce electronic information for all coordination purposes.
- Social security institutions are recommended to take into account EU-level needs, implications, standards and coordination rules when they take decisions on their IT applications.
- As consultation of each other's electronic databases between social security institutions would speed up coordination, it is strongly recommended to open up this facility as widely as possible for coordination purposes.

ANNEX: BACKGROUND REPORT - ANALYSIS

Introduction

Legal measures to protect and preserve the social security rights of citizens who make use of their right of free movement within the European Communities have existed for more than 40 years already. Today, Regulations (EC) No 1408/71 and (EC) No 574/72 set out social security coordination rules which define how those citizens who move within the European Economic Area are to be protected by and within the social security systems of the Member States. On the basis of these rules, these citizens have an absolutely identical right of access to national social security schemes and receive benefits from those schemes as the nationals of their State of residence wherever they settle within the European Economic Area. In addition, citizens' social security rights accumulated in different Member States are maintained and exported, and citizens' social insurance periods in different Member States are taken into consideration for the aggregation of benefits.

These social security coordination rules are applied and put into practice through information exchange between social security institutions of the Member States. This means that, in order to guarantee appropriate and correct protection of the social security rights of mobile citizens, there is a permanent, regular and complex information flow between hundreds of social security institutions in the Member States, comprising mainly information on validity of rights, insurance history, competent social security institutions, identification of the citizen and payment of benefits and contributions.

Despite the opportunities opened up by the development and existence of modern information technology to carry out these information exchanges effectively and in an automated way, electronic processing is used only very marginally for these purposes. As a matter of fact, the bulk of these exchanges is still effected by using paper E forms which are sent from one institution to another via traditional post or the citizen concerned. This exchange method has shown its strengths and weaknesses during the 40 years of existence of social security coordination and become the routine and standard way of processing in practice. However, several factors also make the use of the paper forms complicated. The fact that the E forms are still regularly completed manually, and that despite the multilingual nature of the EU only one language version of the form is used in individual cases, creates misunderstandings and ambiguities and affects the legibility of these forms. In addition, these forms are amended and revised regularly for several reasons, and in particular because of the continual changes in the social security systems of the Member States. All this fundamentally affects the general practical value of these forms.

It may be asked legitimately and with good reason whether it is possible to protect and preserve efficiently and correctly the social security rights of mobile citizens through

paper-based information exchange methods in the new European Union of 25 Member States. It is clear that an exponentially increasing number of E forms will be lost or rejected when more than 20 language versions for each E form are circulating between thousands of social security institutions, whose action is based on more and more varied social security schemes and legislations while cooperating in order to implement EC social security coordination rules. Suitable exchange of information in the EU of 25 Member States seems to be extremely difficult without standardised use of electronic exchange methods. Consequently, proper protection of the citizens implies that all information production, processing and exchange that are necessary for application of the coordination rules should be carried out by electronic means where appropriate.

The process of modernising the social security coordination rules has come to its home stretch after long and profound negotiations in 2004. The Council of Ministers of the European Union and the European Parliament have approved a new Regulation on the Coordination of Social Security Systems, which will replace Regulation (EC) No 1408/71, and the Commission will present its proposal for a new implementing Regulation during the year 2004. It is difficult to imagine that any modernisation of the coordination system could be done without strengthening and standardising the role and the importance of modern technology and electronic processing as a way of protecting citizens' social security rights. Automatic electronic processing would strengthen the protection of the citizens by speeding up data handling and reducing the rate of errors in data. At the same time, it would reduce the volume of manual processing in social security institutions and thus enhance the working efficiency of all the parties involved and the performance of information exchanges.

The Technical Commission on Data Processing has a remit to study possible ways of adapting new data processing techniques to the needs of information exchanges in the context of social security coordination on the basis of Title VI a of Regulation No 574/72 and of Article 73 of the new coordination Regulation. These studies should focus in particular on exchange documents such as models of certificates, certified statements, declarations and claims on the one hand and on exchange instruments including channels, data transmission procedures, common architecture rules for the telematic services, in particular on security and the use of standards, on the other hand. The Technical Commission may make proposals to the Administrative Commission on Social Security for Migrant Workers, which then takes decisions on measures to be taken in order to make tangible progress on the basis of these proposals. However, it is up to the Member States to gradually further the use of telematic services for the exchange of the data required for the application of the social security coordination rules, and each Member State is responsible for managing its own part of the telematic services. The European Commission supports these activities within the common interest, placing a secretariat at the disposal of the Technical Commission on Data Processing, among other things.

In accordance with its responsibilities, the Technical Commission contributes in particular to the development of the E forms in such a way that they will be adapted to the requirements of increasing use of electronic data processing operations between Member States and their social security institutions and that streamlines the electronic processing of the forms. The goal is to switch, to the maximum possible degree, to the electronic exchange of data and information, a move that will bring a genuine simplification and modernisation of these forms and of the way they are processed. In other words, the role of the Technical Commission consists of looking for the most efficient instruments and formats for information exchange. The TC will support any development which might lead to the use of electronic information exchange methods as the standard way of proceeding within the EU.

The Administrative Commission on Social Security for Migrant Workers approved a new Work Programme of the Technical Commission covering the years from 2004 until 2008. In line with new requirements arising from the enlargement of the European Union on the one hand and from the modernisation of the coordination rules on the other hand, the overall objective set in that Work Programme is to urgently accelerate the use of electronic tools and their application for information processing and exchange between social security institutions. In particular, the Technical Commission was instructed to draw up and present a fact-based, realistic, progress-oriented and strategic Plan of Action by the end of 2004 that would include firm proposals for really stepping up the Europe-wide exchange of electronic information. It has been clearly stated that there has been a lack of an overall strategy for telematics at EU level in the field of social security.

In order to fulfil the above-mentioned obligation, the Technical Commission established an ad hoc Working Group comprising members from the Czech Republic, France, Germany, Ireland, Italy, Lithuania, the Netherlands, Slovenia, Spain, Sweden and the United Kingdom. This group was charged with the preparation of the mentioned Plan of Action and with carrying out the in-depth analysis that the successful execution of the task requires. It enjoyed unreserved support from all the other delegations on the Technical Commission when carrying out its task. As a matter of fact, there is clearly a common and unanimous expert view prevailing within the Technical Commission that it is necessary to progress by using electronic means. Consequently, the Member States and their social security institutions are fully committed to extending and stepping up information exchanges by electronic means.

This Plan of Action is the response of the above-mentioned commitment. It is established on the basis of the findings of the studies carried out by the Working Group and of the approval of the Technical Commission as a whole. The first part of this action plan identifies and presents the electronic exchange and processing structures currently in use between Member States. The second part then explains why paper-based information exchanges still are the standard for social security coordination within the EU in the 21st

century despite the availability of thousands of relevant electronic applications, programs and systems that might further rationalise the application of the coordination rules. The third part finally introduces, on the basis of the findings of two first parts, a list of necessary and feasible actions to be taken in order to standardise the electronic processing in integrated way of application of social security coordination.

This Plan of Action endeavours to be frank, honest, determined and ambitious. It is necessary in order to make proposals that can be implemented, if so desired and decided by the decision-makers. The ultimate goal cannot be anything other than to use electronic means in all information production and exchanges necessary for the implementation of EC social security coordination rules. As earlier studies conducted by the Technical Commission and its ad hoc groups have concluded, telematic exchanges may serve no significant purpose unless they follow on from computerised and automated data processing.

It is to be noted that this Plan of Action is written from the perspective of social security coordination as a whole, covering all social security sectors and Member States equally. This choice should not cloud the fact that two coordination sectors, namely health care and pensions, are clearly pioneers as far as electronic exchanges are concerned. These two sectors being examples, the actions proposed have of course to be applied on the basis of the particular needs and context in each sector. Neither should it be forgotten that the possibilities and situations of the Member States to use electronic means are very different. Even if the recent enlargement of the European Union naturally essentially modifies the basic parameters of implementation of the coordination rules, the focus of this Plan of Action is not directly on these changes, as a separate strategy report on the integration of these newcomers into the activities of the Technical Commission will be presented in December 2004. In any event, the new Member States have strongly expressed their commitment to electronic information production and exchange and fit the action to the word.

The European Commission has no new powers to require Member States to restructure and adapt their national systems to progress.

1 *Present arrangements for electronic exchanges*

Even though the vast majority of information on social security rights of mobile citizens of the European Union is still paper-based, some achievements and experiences also exist in the field of electronic exchanges. The most significant success is the creation of the TESS pilot programme and architecture and the strategy of gradual progress towards electronification of information exchanges. The appearance of IT in national information exchange programmes mainly from the 1980s onwards led gradually to the creation of the TESS programme and of the Technical Commission on Data Processing and to the introduction of Title VIa in Regulation 574/72. Member States have been invited to take

part in this programme in accordance with their independent decisions based on their own needs, priorities, capabilities, wishes and desires. Naturally, the internal organisation of the national social security system and administration determines the decision-making process of the individual Member State, and the decision to use electronic means for international data exchanges seems to be easiest in the case of centralised and relatively small Member States.

As described below, the TESS architecture has provided common IT architecture, infrastructure, format, (TESTA) network and (XML) standards in the fields of pensions and health care to Member States which have been willing and able to use electronic exchanges. The TESS participation costs to the Member States are low. As TESS clearly is a process of common interest, the creation and the maintenance of the system have been financed by the European Commission. It would be impossible to have any EU-wide electronic exchanges between social security institutions without the existence of these factors. The delegations on the Technical Commission generally consider the TESS structure to be very functional and reasonably established.

As the Technical Commission on Data Processing has brought together persons in charge of IT systems of social security institutions at national level, it has contributed essentially to the formation of particular cooperative relationships and contacts between Member States, which have allowed a limited group of Member States to go further with electronic exchanges between themselves within the framework of the TESS programme. This has been done on a very pragmatic basis, as described below.

1.1 The TESS programme

With regard to the status of electronic exchanges in the TESS programme, in spite of the efforts and the goodwill of each Member State, it should be recognised that the current achievements are very far from the initial objectives of the successive work programmes of the Technical Commission that have been issued over the last ten years. The voluntary nature of participation in the electronic exchanges and the fact that the E forms have been initially designed for being exchanged on paper have probably not facilitated the electronic exchanges. In this context, it has to be underlined that the new Decision 118 of the Administrative Commission on Social Security for Migrant Workers recognises for the first time electronic exchanges as the standard, whereas paper exchange is relegated to the “default” procedure.

The current situation of the electronic exchanges that are taking place in the pilot projects is as follows: out of about eighty forms, three forms in the pensions sector (E501, E502, E551) and two forms in the health care sector (E125, E127) are exchanged electronically on a regular basis by more than ten Member States. In the pensions sector three forms (E202, E205, E207) are exchanged between two Member States using the old TESS architecture and four Member States are currently testing the new messages developed in XML. Besides the standard forms, two bilateral forms relating to the life certificate are

exchanged between two Member States. At present, all the other forms are still exchanged on paper.

A majority of the new Member States have experience of exchanging bilateral forms on paper mainly but have little experience of exchanging electronic forms at international level.

For each sector and pilot project, the following sections give a more detailed description of the electronic exchanges.

1.1.1 Technologies

Historically the TESS programme has always favoured international standards because it was the only way of interconnecting heterogeneous IT systems, guaranteeing interoperability, and probably also because the use of international standards has always been recommended by the European Interoperability Framework Programme (IDA programme), which remains the major source of funding of the TESS programme.

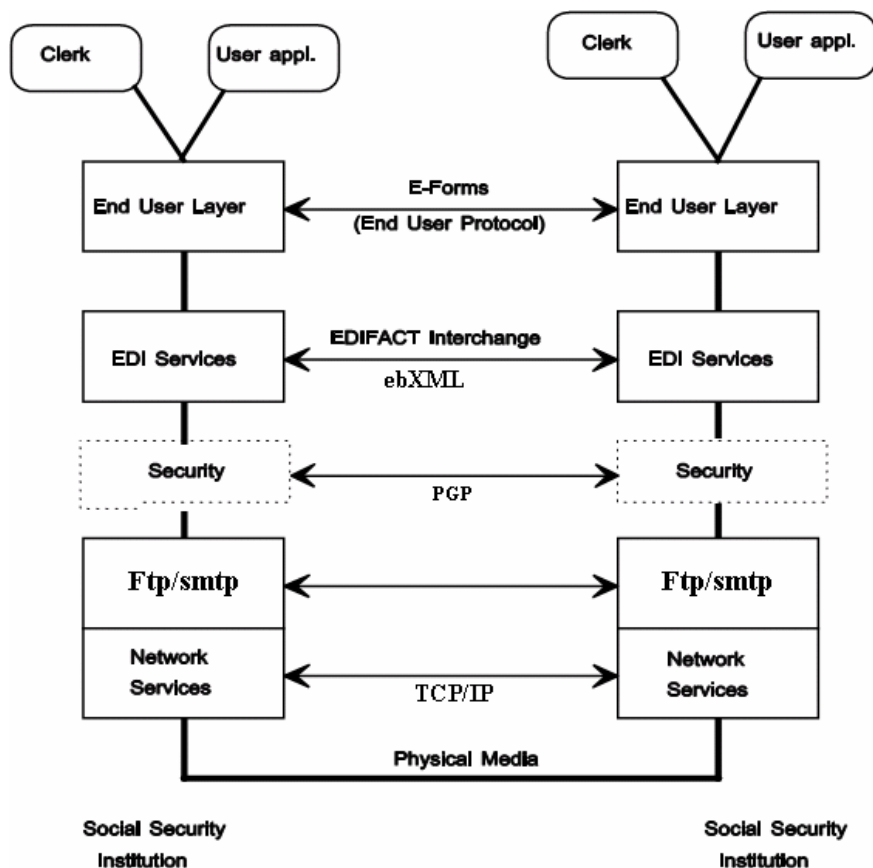


Figure above: The TESS architecture

The first TESS architecture, during the TESS/SOSENET phase of the programme, was mainly structured around OSI standards: X.25 and X.400 for the communication and EDIFACT for the format of the messages exchanged. Today, still in full accordance with the IDA Interoperability Framework, the TESS architecture is structured around the Internet and emerging technologies, which are more flexible, less expensive and easier to maintain. These technologies rely upon the TESTA network that has been set up as a horizontal action of the IDA programme for administrative authorities in the Member States to exchange data electronically. It consists of generic telecommunication services provided under IDA that allow exchange of data with other administrations by making use of a single service provider, which ensures security and delivery of the data in another Member State. From 2002, as recommended by the IDA, the TESS community decided to migrate from EDIFACT towards XML. Some preliminary experiments were launched with the EDIFACT-XML bridge to test the new standard. Today, six forms have been developed in XML and are being tested in the various Builds.

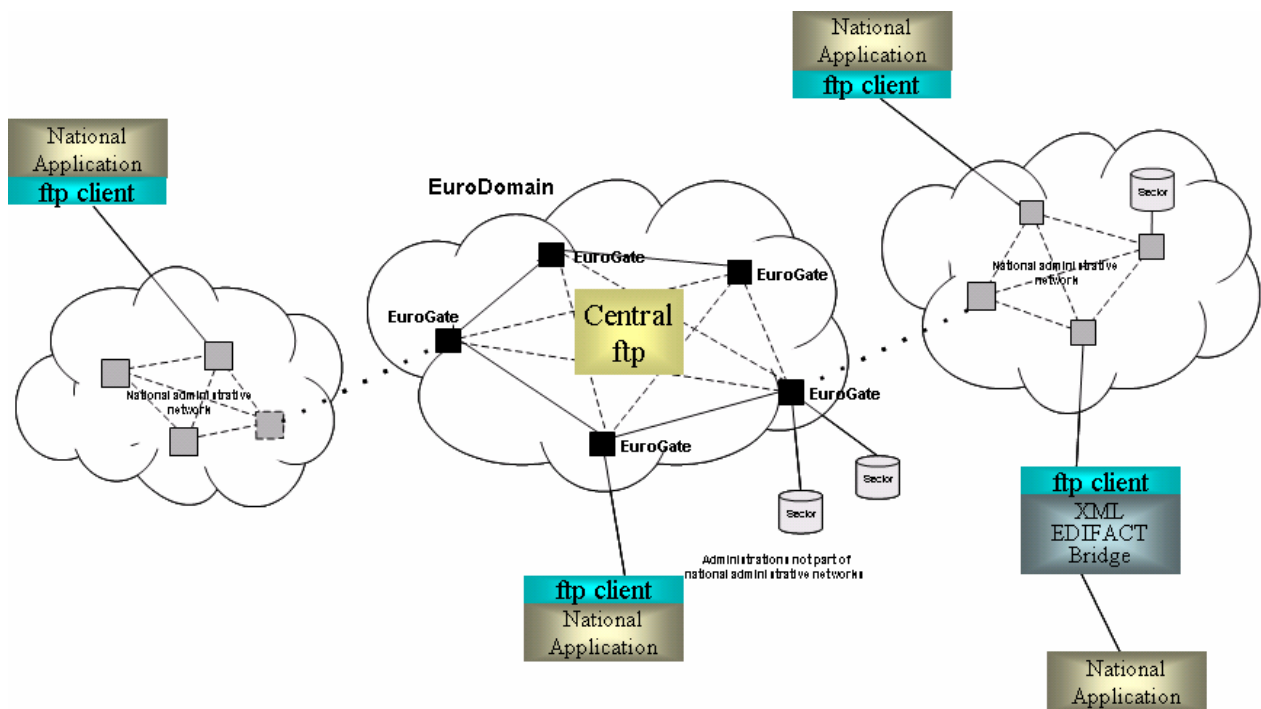


Figure above: TESTA II network and the Build 3+/4/5 architecture

The majority of the new Member States have expressed their preference for exchanging the forms electronically rather than on paper and their strong support for the XML standard, which some of them already used at national level for the interchange of data.

1.1.2 Current pilot programmes and bilateral electronic exchanges

Build 3+: Decision 117 of the Administrative Commission

Decision 117 of the Administrative Commission concerns the exchange of forms E501, E502 and E551 for the mutual identification of migrant workers.

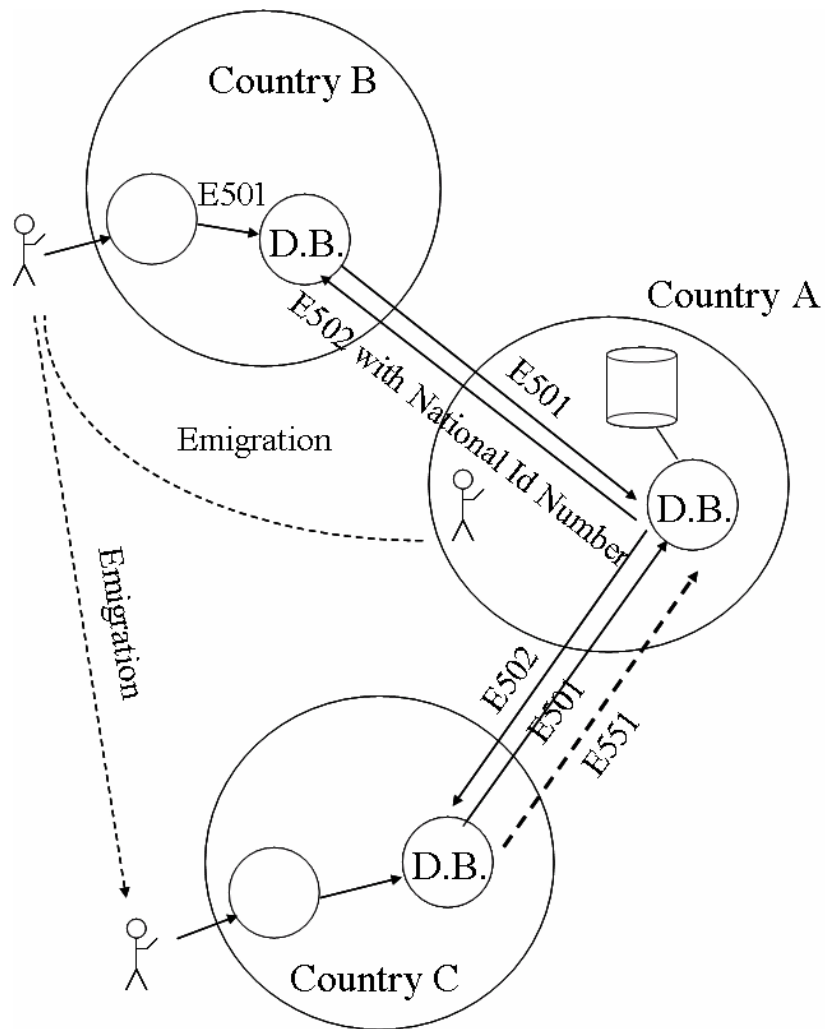


Figure above: Decision 117 – identification procedure

*** Communication infrastructure**

A few Member States are still using the old TESS architecture (X400 over X25 public network) to exchange the Build 3+ forms, whilst the majority of them use the new architecture that relies on the TESTA II network developed under the IDA programme by DG Enterprise of the European Commission. TESTA II is a TCP/IP-based network and the communication protocol used for the exchanges is ftp. One ftp server for the pensions sector has been installed on TESTA where Member States can upload/download the E forms.

*** Format of the exchanges**

A majority of the Member States are still using the EDIFACT messages developed under the TESS/SOSENET programme. For the Member States that joined the exchanges in 2001 and that did not want to invest in an old technology, the forms have also been developed in XML. To facilitate exchanges of forms between Member States using EDIFACT and those using XML, a gateway (the EDIFCAT-XML bridge) has been developed. This gateway allows the new participants to exchange forms with the others without using EDIFACT.

*** Participants**

12 Member States exchange the forms related to Decision 117 on a regular basis, using the Build 3+ infrastructure (1 Member State is exchanging with 10 other Member States, 3 with 7, 6 with 2, 1 with 5, 3 with 4, 2 with 2 and 1 with 1). Two other Member States are still finalising the tests before going into production.

Build 3+: Decision 118 of the Administrative Commission

Decision 118 of the Administrative Commission concerns the exchange of forms E503, E504 and E505 for the early drawing up of the pension history.

*** Communication infrastructure**

According to the new Decision 118, Member States have to exchange electronically the information on insurance histories of migrant workers in line with their existing technological capabilities, whilst the use of paper E forms only becomes a secondary option. The new Decision, which focuses on the exchange of information relating to insurance histories instead of particular forms, enables Member States to set up any technological infrastructure for that purpose. This is the reason why some Member States have signed bilateral agreements that allow them to have access directly to each other's databases and to retrieve the insurance periods.

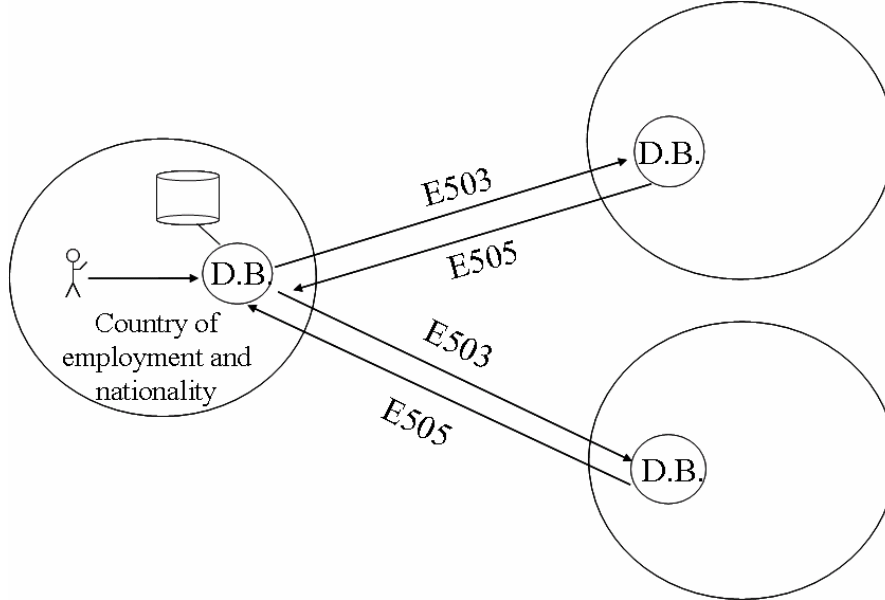


Figure above: Decision 118 – Early drawing up of pension history

* Format of the exchanges

As in the case of the forms relating to Decision 117, the E503, E504 and E505 have been developed in EDIFACT but are not used. The format currently used is proprietary.

* Participants

3 Member States are exchanging insurance histories (1 Member State is exchanging with 2 other Member States, 2 with 1).

Build 4

Build 4 concerns the exchanges of forms E202, E205, E207, E210 and E211 for the processing of pension applications.

* Communication infrastructure

The infrastructure for Build 4 is the same as the one for Build 3+. The exchanges take place on the TESTA II network on the same ftp server as those of Build 3+. The naming convention enables a distinction to be made between the exchanges relating to Build 3+ and Build 4.

*** Format of the exchanges**

The forms E202, E205, E207 and the E210 were primarily developed in EDIFACT at the same time as the E5xx series. In 2000, it was decided to migrate from EDIFACT to XML format exchange. A group of four Member States plus Switzerland therefore volunteered to develop these forms in XML according to the methodology used for developing Build 3+ messages. These messages are now available in XML and are being tested by the participants.

*** Participants**

At the time of writing, Italy and Germany are exchanging the E202, E207 and E205 using the old TESS infrastructure (EDIFACT) and four Member States plus Switzerland are testing the new messages.

Build 5

Build 5 concerns the exchange of forms E125 and E127 for the settlement of health care costs.

*** Communication infrastructure**

The infrastructure used for Build 5 is very similar to the pension infrastructure. The exchanges take place on the TESTA II network using TCP/IP and ftp as the communication protocol. For Build 5 exchanges, a separate ftp server has also been installed on TESTA and is used to download/upload the E125 and E127 forms.

*** Format of the exchanges**

The format used for exchanging the E125 and E127 forms is still the old Magnetic Tape Format (MTF) developed for the exchange of invoices on magnetic tapes.

*** Participants**

At the time of writing nine Member States are exchanging the forms relating to the settlement of health care costs on a regular basis, using the Build 5 infrastructure (1 Member State is exchanging with 6 other Member States, 3 with 4, 4 with 3 and 1 with 1). Two other Member States are still finalising the tests before entering into production.

Life certificate

The Life Certificates are bilateral forms developed and exchanged by Nordic countries that are exchanged on a monthly basis to verify that pensioners living abroad and receiving a pension are still alive.

*** Communication infrastructure**

The infrastructure for the exchange of the Life Certificates is the Build 3+ infrastructure. The exchanges take place on the TESTA II network on the same ftp server as those of Build 3+.

*** Format of the exchanges**

Two forms have been developed for this purpose, the E511 and the E512. These two messages have been developed in EDIFACT and are based on the Build 3+ EDIFACT messages.

*** Participants**

At the time of writing two Member States (Finland and Sweden) and Norway exchange the forms relating to the life certificate.

1.2 European Health Insurance Card

In accordance with the conclusions of the Barcelona Summit of the European Council, the European Commission proposed in its Communication (COM (2003) 73 final) that a European Health Insurance Card (EHIC) would be introduced as the document proving the right of the mobile EU citizen to receive health care services at the expense of his competent Member States during temporary stays in Member States other than the competent one. The card would replace the paper E forms used for this purpose so far.

Even if the EHIC itself will not include any electronic characteristics at the beginning of its use, the Commission communication states that the EHIC will only take on its full significance when an electronic system and automated administration of the E forms and procedures are in general use. As a matter of fact, the first step has already been taken in that direction, as it is necessary to use an electronic Institution Code Data Base in order to be able to identify the institution to be invoiced when an EHIC is used.

As far as the further electronification of the EHIC is concerned, the Commission communication foresees that the modern technology will be used when the card is developed and procedures simplified in order to increase the effectiveness of health care protection for citizens. This electronified stage could also include evaluating the possibility of integrating into the card functions linked to personal health data, such as access to important medical information in emergencies or records of treatment received. This changeover might be completed by 2008 and is totally in line with the objectives of this Plan of Action.

2 Reasons why little use is made of electronic means

2.1 Lack of necessity

As the development of IT architecture and infrastructure for information exchanges lies within the responsibility of the Member States, with the European Commission supporting their efforts in this regard in the common interest, and as participation in the above-mentioned pilot programmes is absolutely voluntary, the most relevant question as regards the objectives of this Plan of Action is why more progress has not been registered so far.

Clearly, as no overall strategic decision to use electronic instead of paper-based procedures has been taken so far, it can and must be noted that the Member States and the Commission have not considered it necessary to go any further with electronic procedures, at the level where such a decision should be taken. In the case of some Member States, the social security institutions have a legally independent status and independent (decision-making) powers and are not operationally subordinate to any central government authority under national law, which means that the centralised national authority may not even decide to use telematics for them. At the same time, the social security administration may be divided into a large number of individual institutions. In these circumstances, it appears to be rather difficult to decide who should finally and concretely direct the process in a reasonable and comprehensive way, when the time is right to take the necessary decisions and simply to define where to start with. It should be borne in mind that no such decision can be taken at EU level without the unanimous agreement of the Member States. This may mean that establishment of the system need to be agreed between all agencies involved.

Not adopting IT-based procedures may be entirely understandable and reasonable in the context of the European Union of 15 Member States, where the social security coordination rules were not modernised. However, it is hardly plausible to consider that the application of these rules might be appropriate without automatic and electronic procedures in the new context and in the 21st century. On the other hand, there was a clear high-level political will to develop a European Health Insurance Card, but it could not be done as wished by that high level for reasons lying at some other levels. The objective should be consequently to exchange all data electronically, subject to benefit and cost when they necessitate financial investments from the Member States. It may be estimated that technological development over the next few years will eliminate any cost barriers. (See point 2.3)

Conclusion/recommendation:

In the new data exchange circumstances it is necessary to make increasing use of electronic means in the EU context. The objective should be to exchange all data electronically subject to business benefit and cost. Technology developments over next years will remove any cost barriers.

Guidance from the European Commission in the common interest and an overall strategy are needed for this purpose.

2.2 Paper-based procedures as the established standard

Information production, handling and exchanges between social security institutions of the Member States are particularly strongly linked to paper forms procedures in the mind of several key actors involved in the implementation of social security coordination rules. E forms have consequently established themselves as the routine and normal way of proceeding over 40 years of these exchanges.

The paper E forms have thus become the standard way of exchanging information at European Community level, because the exchange system was created at the end of the 1950s and then standardised at the beginning of the 1960s. Further modifications of these forms, naturally very many in number, have never profoundly and truly questioned the appropriateness of paper E forms or rejected their use as the standard way of exchanging information. Neither has it been seriously considered that these exchanges might be made using different instruments than at national level.

As a matter of fact, the use of paper forms for EU-wide information exchanges has been a natural and logical extension of the exchange practices and methods used in the Member States for a long time. Where information exchanges on social security rights exist at national level between social security institutions, they have involved traditionally, and still involve in many cases, different manual practices as far as data collection in particular is concerned. Also the reimbursement documentation, such as (original) bills and receipts for benefits received at the expense of the competent institution, have to be sent from the institution to another via traditional mail anyway. These means that social security institutions are not able to provide or transmit the information requested for EU-level social security coordination purposes on an automated basis without manual work. When consultations are needed within a country for filling E forms, they are mainly done using paper. In some Member States, there is not even any need for data exchange between national social security institutions, as they have a single national social security structure.

Paper E forms are still today considered to be a natural, flexible, communicative, user-friendly and operational instrument for coordination purposes. This way of thinking is so deeply rooted that when E forms are regularly modified it is often done as if they were only operated through paper-based procedures without paying any attention to the requirements laid down by existing pilot programmes. This continues to be the case, even though Member States have started to use more and more automated, electronic and technical applications at national level after their appearance from the 1980s onwards. The way of processing E forms and their modifications clearly gives the somewhat misleading impression that the real essence of these forms is the paper. These forms are always concretely presented and visualised on paper when they are prepared, discussed, approved and finally published in the Official Journal. Also citizens have become familiar with the paper forms issued to them by social security institutions.

Even if the use of paper E forms has made it possible to apply the social security coordination rules somehow in an operational way, it would not be truthful to pretend that they have permitted perfect or efficient information processing between social security institutions of the Member States. These forms have been essentially developed from a rather legalistic point of view following strictly and literally the articles of the social security coordination Regulations, which has not always corresponded best and most practically to the needs of information exchange between social security institutions. A large proportion of the personnel who complete, send and receive these forms consider them extremely complex and not very clear. This contrast in legalistic and more pragmatic approach is clearly demonstrated by the fact that many E forms are regularly misused or not used at all and bilateral forms are invented between specific Member States in order to supplement the E forms and to fill the vacuums left by them. This complexity of the forms even makes it rather difficult to produce them electronically and to automate their exchange. This leads to high message development and implementation costs. In addition, paper forms filled in manually abroad are not always readable in the receiving institution and have even been totally rejected in many cases.

Conclusion/recommendation:

Paper E-form-based information exchanges may not be considered as being the standard or the most efficient way of proceeding while the social security coordination rules of the European Communities are applied.

When the sets of information to be exchanged are defined for the application of individual coordination rules, it has to be made clear that the particular decision of the Administrative Commission only determines data set and contents and not the structure or exchange channel. Electronic exchanges have to be considered as being the primary method.

2.3 Lack of financial resources

As paper-based processing and information exchange have become the standard way of operating between social security institutions and as this method has proved itself operational to a certain extent, it has clearly not been felt so far that it would be necessary to use modern technology for the implementation of the coordination rules in the European Union of 15 Member States. Such a realisation has dawned gradually only from the end of the 1990s onwards.

For a long time, it was therefore not considered as being justified or reasonable to invest money in construction of common electronic systems for the application of the social security coordination rules further than presented in the previous chapter of this Plan of Action. As a matter of fact, gathering, collating, sending and requesting information on social security rights is mainly and essentially focused on totally national cases, which means concretely that social security institutions and authorities are naturally willing to concentrate their resources on developing systems which facilitate that task for them. Even if the application of the social security coordination rules necessitates a huge amount of information production and exchange at EU level as a whole, information provision and exchange for the EC legal context and purposes remain relatively low and clearly marginal in volume in comparison with the volume of national benefit cases from the perspective of most European social security institutions. In addition, the EU-level cases and data exchanges are generally clearly directed to two or three other Member States more or less on a national or regional basis in the case of most institutions, which reduces the interest and the pressure from individual Member States to go ahead with EU-wide solutions.

Consequently, the automation of data exchange in the EU context also becomes relatively expensive per exchange unit and of little interest from the point of view of the individual social security institutions which have their IT priorities in national cases. From the short-term cost-efficiency or cost-benefit perspective they have no interest in financing or creating particular IT arrangements for their EU cases, especially as the budgets of many social security institutions are decreasing steadily. The financial expenditure linked to replacement of existing paper forms by electronic documents makes it almost pointless to invest in the establishment of electronic data exchanges.

Taking into account the volume of information production and exchanges of all the European social security institutions, there is, however, a common interest in going ahead with electronic-based procedures. Besides, the number of these cases is increasing all the time, among other things as a result of the enlargement of the European Union and the extension of the personal scope of application of social security coordination rules and also simply because migrations between current Member States are steadily rising. Consequently, long-term cost-effectiveness estimates can be realistically, comprehensively and pertinently done only at the level of the EU as a whole and the European Commission can be clearly identified as the most appropriate body to do this.

Conclusion/recommendation:

It is not probable that social security institutions can afford to invest considerable sums of money in new IT applications for solely EU purposes. In accordance with the common interest, the European Commission should guarantee the availability of appropriate IT arrangements to be used by social security institutions for the application of EC co-ordination. These arrangements should be based, in certain respects, on existing exchange systems between national administrations within the European Union.

2.4 Lack of electronic tools

As a result of the lack of willingness and thus financial support, no more exhaustive Europe-wide infrastructure exists or has been developed for electronic data exchanges than that described in the first part of this Plan of Action. In particular, the issue of personal data protection is still open as regards the legal requirements of some Member States for data transfer by computer. Consequently, the one who would like to use electronic means to efficiently apply the social security coordination rules finds himself easily in a vicious circle situation, and he is totally a prisoner of paper logic and has to accept that telematics are not the most appropriate way of handling and exchanging social security information between institutions, as there is no real alternative. Institutions that would have been able and willing to use electronic means for the application of the coordination rules have therefore been discouraged from doing so because of the lack of appropriate infrastructure in the receiving country.

As electronic means have not established themselves as the standard way of processing and exchanging data for social security coordination purposes, a sort of suspicion and mistrust still seems also to prevail in some social security institutions towards electronic exchange means. The validity and the authenticity of electronic forms and the use of electronic signatures have not been approved in practice by all the actors involved in data exchange procedures yet. This suspiciousness and lack of confidence regularly leads to rejection of electronic documents.

As a matter of fact, this lack of electronic tools already starts in some cases at the institution level where social security institutions only proceed on paper and cannot produce electronically the basic information needed for coordination purposes, such as proof of insurance validity or invoices for reimbursement of benefits received in another Member State, not to mention much more complicated pieces of information such as insurance history or aggregated social security rights, where electronic data exchange might require the Member States to store insurance periods electronically.

However, most Member States have set up electronic applications and databases for national purposes on the basis of national legislation and its information needs. The choices of applications and systems used have been made in most cases independently of the information needs of EC social security coordination and of the system choices of other Member States. These national solutions have been consequently approved in technical isolation from more general EU-level e-cooperation programmes and projects, such as IDA and e-government initiatives. In some cases, no standard format is even defined for national exchanges. As a result, national systems and applications are based on highly different information technology solutions which are only seldom interoperational between them. In addition, the data registered barely correspond exactly to the data needed for the application of social security coordination, even if the main items of information, such as identification of the person, validity of his insurance or insurance history above all, are needed in an identical way on both levels. This means that the IT systems in the Member States are not able to produce the information that is to be exchanged at EU level. The fact that the systems and rate of IT use of the Member States differ enormously has essentially limited the possibility of creating an electronic European Health Insurance Card. In some Member States social security institutions have also set up independent data registers and bases which are not interconnected with those of other institutions.

As if all this was not creating enough obstacles to electronification of coordination implementation, some data formats, such as EDIFACT, are only used for EU-level exchanges and are thus by no means the most appropriate for national purposes. Thus, the national architecture is technically and logically different from the EU-level architecture and format, even in some cases where EU-level data exchange architecture exists. This means that internal formats need to be converted to produce both the paper E forms and the electronic messages for EU-level processing. XML is used in some cases at national level.

As encouraged by Regulation 574/72 and explained above, Member States have also established some bilateral or multilateral electronic processing and exchange arrangements between themselves on the basis of very pragmatic and concretely reasonable needs and natural links. Even if this has been clearly and admittedly justified and even recommendable, it has also somehow limited the need to set up EU-wide arrangements. As the technical direction of the existing TESS architecture in some instances has been predetermined also on the basis of these limited arrangements, it has been difficult for some other Member States using different technical applications to join the project at a later stage.

Conclusion/recommendation:

It is necessary to concretely define the IT services and arrangements needed for electronic data exchanges at EU level. In particular, there has to be a common electronic network where

- national forwarding points are identified for all Member States and social security institutions,
- a common message format is defined,
- interoperability between different national applications works,
- all necessary data to be exchanged between institutions for the application of the coordination rules may be sent.

2.5 Lack of knowledge and information

Even where IT architecture exists as described in the previous part of this Plan of Action, apart from the reasons explained above, several Member States have been discouraged from using this architecture and participating in these projects simply because they are not up to the pilot programmes. This means that there is a clear gap in communication, discussion and/or information at EU level as regards these programmes. It seems to be strongly linked to the fact that the concrete application of the social security coordination rules of the European Communities is based essentially on different procedures and methods which are mostly more complicated than national law application. And of course, electronic processing and data exchange imply particular knowledge of the high-tech tools concerning the use and functioning of computers, IT connections, IT networks and databases, and social security institutions do not, and cannot be assumed to, have particularly that kind of resources in most cases. Apparently, four annual meetings of the Technical Commission on Data Processing are not enough to guarantee efficient and understandable information distribution.

Consequently, there is less experience of the application of the former rules than the latter ones in national infrastructure. Naturally, this is highlighted in the case of the newest Member States, which in some instances are not at all experienced in international data exchanges, let alone data processing.

Conclusion/recommendation:

It has to be ensured that the personnel involved in coordination of data exchanges have proper knowledge and information.

2.6 Complexity of information content

The complex and dynamic nature of the social security rules themselves has also essentially complicated the task of taking decisions on going ahead with the use of electronic means.

As a matter of fact, the social security legislation and administration structures are rather complex and multi-faceted in most Member States and these complicated rules are typically modified regularly.

As these complex national security systems vary in their very basic structures, as far as even the equivalence of basic concepts such as social security benefit, insured person or insurance period, to give just some examples, of the systems is concerned, this complexity is of course repeated and even increased exponentially at EU level, and concrete EU data exchange cases are generally far more complicated than the national ones. For example, the identification of the insured person, which is not at all problematic at national level in general, is often extremely complicated within the EU context. And, of course, the international communication situations *per se* are more complicated than national ones, as one has to operate with a partner whose action methods and cultural background, let alone problems and possibilities of misunderstandings related to the use of different languages, are not the same. Most concretely, the compatibility of different alphabets is a huge technical problem and their use causes a lot of confusion. The enlargement of the European Union naturally complicates further the current situation, starting from the fact that with the arrival of new languages new versions of alphabets have also to be integrated into the exchange structures.

Each Member State has its own needs for information and its own way of providing and handling them in order to correctly implement the social security coordination rules, resulting in complexity of E forms with information requests for specific national purposes. The data compilation for the purposes of EC social security coordination consequently takes much longer than for the purposes of the implementation of national legislation. Moreover, the large number of institutions involved in data exchange procedures has been a serious obstacle to the conversion of paper forms into forms that could be sent telematically. In addition, national databases and applications are mainly developed for national purposes, and the Member States do not keep registers for the information needs of other Member States or for coordination purposes. Automated data processing between the Member States might therefore be rather difficult.

Conclusion/recommendation:

Electronic tools chosen for the application of the coordination rules have to be sufficiently flexible and adjustable in order to be usable in constantly changing conditions.

Particular attention has to be paid to the problem of identification of insured persons.