COMPUTERISATION OF THE BULGARIAN CUSTOMS ADMINISTRATION IN LINE WITH THE EU LEGISLATIVE DEVELOPMENTS IN THE AREA OF ELECTRONIC CUSTOMS

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Standard Project Fiche

1. Basic Information

1.1. CRIS Number: 2006/018-343.08.06

1.2. Title: Computerisation of the Bulgarian Customs Administration in line with the EU legislative developments in the area of Electronic customs

1.3. Sector: Finance

1.4. Location: Bulgaria, National Customs Agency (NCA)

1.5. Duration:

Duration of Component 1-32 months (7 months contracting, 24 months period of execution and 1 month closure; after the end of the period of execution there will be a 12-month warranty period);

Duration of Component 2-14 months (7 months contracting, 6 months period of execution and 1 month closure; after the end of the period of execution there will be a 12-month warranty period);

2. Objectives

2.1. Overall Objective(s):

Computerisation of the customs business in line with the EU standards and BCA requirements for realisation of simple and paperless environment for customs and trade and implementation of the security management model for the EU external borders.

2.2. Project purpose:

Provide a software solution that will allow international exchange of data on pre-arrival summary and customs declarations, pre-departure summary declarations, economic operators and risk management in order to improve the effectiveness of controls against fraud, to expedite the flow of goods and to contribute to better supply chain security through interoperability with the Member States' electronic clearance systems.

2.3. Accession Partnership (AP) and NPAA priority:

In the annex of Council Decision of 19 May 2003 on the principles, priorities, intermediate objectives and conditions contained in the Accession Partnership with Bulgaria (2003/396/EC) is stated:

Under point 4 Priorities, Customs union:

"Strengthen the operational and administrative capacity of the customs administration, particularly as regards information technology and human resource policy".

Roadmaps for Bulgaria and Romania, Brussels, 13 November 2002.

COM (2002) 624

Chapter 25: Customs Union

Medium term

Strengthen operational and administrative capacity of customs administration and ensure a satisfactory level of IT.

2.4. Contribution to National Development Plan:

Not Applicable

2.5. Cross Border Impact:

Not Applicable

3. Description

3.1. Background and justification:

3.1.1. BCA computerization: background information

Computerisation is a priority area for the NCA, with the main objective being the development of the Integrated centralised information system that shall serve as an instrument for the implementation of the NCA's Business Strategy, facilitate the trade and ensure optimum efficiency and profitableness of the invested resources in performing Customs activities.

The IT Strategy of the NCA has been developed in 1999 and it has been maintained up to date.

Phase 1 of the Bulgarian Integrated Customs Information System (BICIS) has been developed with the funding provided by the State Budget funds, under the Phare program and other financial sources. The BICIS 1 was operational in the whole territory of Bulgaria since the beginning of 2001. In addition, hardware and communication equipment for the BICIS have been delivered; and in the Customs Statistics and Automation Directorate at the Central Customs Directorate (CCD) of the NCA a team has been established to manage the BICIS project.

In the middle of 2003 the web based BICIS 2.1 became operational. This system involved the re-engineering of the BICIS Stage 1 applications to a web based approach following Object Management Group (OMG) specifications and using Rational Unified Process (RUP) development methodology standards.

The Customs Clearance module support all types of Customs approved treatment and use of goods according to the Customs Act and its' implementing provisions. The automated import procedures cover

- Manifest procedures registration and processing of customs manifest data and recording of the subsequent status of the document;
- Customs procedures using SAD and incomplete SAD import, temporary import, Inward processing, customs warehousing; processing under customs control as well as Customs approved treatments: destruction under customs control and abandonment of goods.

The main systems functions are: registration and processing of the declaration data (including logical checks) and recording of the subsequent status of the document;

recording of the results for documental checks and physical examinations of goods; transformation of the incomplete declaration in another declaration which complies with the relevant legal provisions. The entering and the following discharge of the customs procedure with economic impact are recorded also in the system data base.

DTI for import declarations is under development and is planned to be completed by mid 2006.

BICIS 2.1 also included the development of the Bulgarian Transit Management System (BTMS) Phase I, representing NCTS requirements at the national level. BTMS-2 which will cover NCTS developments for International needs is under development.

In 2004 the development and user testing of the Customs debt, Authorisations and Risk analysis modules (BICIS 2.2) have been successfully completed. The three new modules of BICIS have been put into operation in January 2005.

The Risk analysis software realisation includes:

- Processing of risk indicators, proposed actions, risk profiles (as combination from common part, risk indicators, actions);
- Possibility to define risk profiles for SAD, customs manifest and TIR carnet;
- Risk profiles dissemination;
- Statistical and reporting functions.

The On-Line Analytical Processing (OLAP) module allows reporting on all customs data, usually for statistical purposes at CCD level.

Future projects are focused on the National Business and EU Business requirements in the fields of interconnectivity, extension of BICIS, new business functions of NCA as well as infrastructure, including ITMS, ECS.

3.1.2. Simple and paperless environment for customs and trade

The objective for ensuring interoperability with the Member States' electronic clearance systems, as set in Commission Communication on a simple and paperless environment for customs and trade (COM (2003) 452 final, 24.7.2003), is already being pursued by BCA with regard to the NCTS and Export Control System (ECS). The next step is to introduce an Import Control System (ICS), aiming at:

- exchange of data between customs administrations in the case in which the offices of entry and import are in different MS both for the purposes of risk-based controls and for centralized clearance,
- exchange of data between the importer and the customs administration;
- transmission of pre-arrival notices, which have been lodged at the customs office of import, to the customs office of entry, even if they are in different MS;
- transmission of arrival notices requested by offices of import in a different MS from the one of the office of entry at which the pre-arrival declaration is lodged and at which the goods are presented
- tracking of the goods during their movement within the EU customs territory.

3.1.3. Security management model for the EU external borders

The Commission Communication on a simple and paperless environment for customs and trade presented also a series of measures to address security issues. With the security amendments to the Community Customs Code (Regulation (EC) 648/2005 of 13 April 2005) the European Union introduces a number of measures to tighten security around goods crossing international borders. The measures will mean faster and better-targeted checks. The measures cover the following major changes to the customs code:

- require traders to provide customs authorities with information on goods prior to import to the European Union (pre-arrival/ pre-departure declarations);
- exchange of data (pre-arrival summary and customs declarations) between the customs office of entry and other customs offices;
- interoperable customs systems will enable traders to register only once instead of having to register in each Member state where they conduct their business.
- introduce a mechanism for setting uniform Community risk-selection criteria for controls, supported by computerised systems through an electronic system for risk management, both for transmission of risk information and risk selection results, to be integrated into the processing of electronic declarations.

3.2. Sectoral rationale

3.2.1 Identification of projects
Not applicable
3.2.2 Sequencing
Not applicable

3.3. Results:

Component 1 "Further Development of the Bulgarian Electronic Customs System"

Developed and functioning information system including the realisation of:

- International exchange of ICS data between customs office (CO) of entry point, CO of import and CO responsible for point of control in case of diversion including information on:
 - pre-arrival summary and customs declaration,
 - initial customs declaration which will have to be matched with a supplementary declaration,
 - departure and arrival of goods, as well as the control results, etc.
- ICS data exchange with traders (importers, carriers, freight forwarders, etc.) for the cases when another member state /or member states apart Bulgaria is/ are involved in the import procedure.
- Exchange of risk information with the other MS and ensure that Community profiles are incorporated into BICIS.
- International exchange of data on registered economic operators.
- Connection with CCN/CSI for the purposes of the above modules.
- Integration with the BICIS modules.

Through developed and functioning Electronic Customs System including:

- Prepared Requirements Specification and Business Model based on the DG TAXUD specifications and BCA requirements;
- Designed Software Architecture;
- Established Implementation model;
- System Tested and Deployed.

Users and system administrators trained.

Operational and turnover to maintenance tasks completed.

Remedial work, if necessary, performed during the warranty period in order to ensure operational efficiency of the software.

<u>Component 2 "Supply of equipment for Further Development of the Bulgarian Electronic Customs System"</u>

The following types of equipment, software and services delivered:

- Application server(s)
- Database server(s)
- Message passing server(s)
- Workflow server(s)
- Integration server(s)
- Web server(s)
- System management server(s)
- Directory server(s)
- Security and intrusion detection server(s)
- Storage subsystem
- Tape subsystem
- Connectivity (Gigabit LAN, SAN)
- Cluster services
- Integration with existing equipment
- Management and RAS

Training on advanced technology topics.

3.4. Activities:

Component 1 "Further Development of the Bulgarian Electronic Customs System"

Development of information system including the realisation of:

- International exchange of ICS data between customs office (CO) of entry point, CO of import and CO responsible for point of control in case of diversion including information on:
 - pre-arrival summary and customs declaration,
 - initial customs declaration which will have to be matched with a supplementary declaration,
 - departure and arrival of goods, as well as the control results, etc.
- ICS data exchange with traders (importers, carriers, freight forwarders, etc.) for the cases when another member state /or member states apart Bulgaria is/ are involved in the import procedure.
- Exchange of risk information with the other MS and ensure that Community profiles are incorporated into BICIS.
- International exchange of data on registered economic operators.
- Connection with CCN/CSI for the purposes of the above modules.
- Integration with the BICIS modules.

The above will be achieved through:

- Preparation of Requirements Specification and Business Model based on the DG TAXUD specifications and BCA requirements;
- Design of Software Architecture;
- Establishment of Implementation model;
- System Testing and Deployment.

Training of users and system administrators.

Complete the operational and turnover to maintenance tasks.

Perform remedial work, if necessary, during the warranty period in order to ensure operational efficiency of the software.

The activities under the project will be implemented through a **Service contract** with clearly stated deliverables

Experts with experience in:

- Project management and Quality Assurance management following RUP;
- Analysis and design using UML (Unified Modeling Language), SOA (Service Oriented Architecture) and J2EE (Java 2 Enterprise Edition);
- Software implementation with J2EE and XML (eXtended Mark-up Language);
- System architecture development with XML and application servers;
- System engineering.

<u>Component 2 "Supply of equipment for Further Development of the Bulgarian Electronic</u> Customs System"

Delivery of the following types of equipment, software and services:

- Application server(s)
- Database server(s)
- Message passing server(s)
- Workflow server(s)
- Integration server(s)
- Web server(s)
- System management server(s)
- Directory server(s)
- Security and intrusion detection server(s)
- Storage subsystem
- Tape subsystem
- Connectivity (Gigabit LAN, SAN)
- Cluster services
- Integration of existing equipment
- Management and RAS
- Disaster recovery considerations

Training on advanced technology topics.

The activities under the project will be implemented through a **Supply contract** with clear technical specifications

Experts playing the following roles:

- System engineers.
- System Architects.
- Trainers.
- Etc.

3.5. Linked activities

NATIONAL PHARE PROGRAMME

BG2003/004-937.09.02 "EU standards and practices computerisation of the National Customs Agency in relation to DG TAXUD systems (Integrated Tariff Management System)" Project.

The project is aimed at computerising NCA Integrated Tariff Management System (ITMS) and other applications that serve as reference data to the system.

Project "Further Development of the process of the Bulgarian Customs Administration Computerisation and Development of a National System for Administering the Excise Duty Entirely by the Customs Administration":

Component 1.1: "Extension of the BICIS functionality" aiming at improvement of the standardisation, modularity and scalability of BICIS, as well as adaptivity of the main system modules to the changing legal basis, business logic and, DG TAXUD requirements and standards. It is related to component 1 of this project as far as component 1 is planned to be implemented following the technological framework defined and implemented under component 1.1.

Component 1.3 "Supply of equipment for modernisation of the infrastructure supporting BICIS" aims at the improvement of the infrastructure supporting the development and exploitation of BICIS. It is related to component 2 of this project as far as component 2 will further extend the established infrastructure.

Components 2.4 "Extension of the Excise management system including all EMCS requirements" and 2.5 "Supply of equipment for the EMS IT infrastructure" are focused on realisation of EMCS interconnectivity requirements and ensure the necessary IT infrastructure for the successful realisation of the Excise management system. These two components are related to components 1 and 2 of the current project as they are expected to be performed in parallel.

NATIONAL PROJECTS

BICIS Stage 2 computerisation project

This project covers the Customs Clearance functions and Transit Phase I developments representing NCTS requirements at the national level. It also includes the computerisation of Enforcement, Customs Debt and Authorisations sub-systems.

3.6. Lessons learned:

With reference to the process of further NCA computerisation: Pre-defined methodology standards should be strictly followed.

The relevant authorities should adhere in a timely manner to the conditionalities to the project. This includes adoption of relevant legislation and provision of national cofinancing. Appropriate corrective actions should be taken in cases of delays or other

problems, whereas one of the mechanisms can be the process of regular monitoring and evaluation of Phare projects.

4. Institutional Framework

The project beneficiary institution will be the National Customs Agency (NCA).

The NCA is a part of the Ministry of Finance and is responsible for the collection of Customs duties, Excise duties and VAT on imports and the prevention of illegal imports and exports. It collects about 48 % of the revenues of the state budget. About 3,900 staff is employed by NCA.

The NCA is structured in four hierarchical levels:

- Central Customs Directorate;
- 5 Customs Regions coordinated by Regional Customs Directorates;
- 17 Customs houses;
- 99 Customs bureaus and Customs posts.

For many years the NCA has been beneficiary of Phare support whereas considerable experience has been gained in the programming, management, implementation and monitoring of Phare projects and relevant structures are in place and functioning.

The NCA has established a special organisational structure for the technical management and monitoring of the project, which comprises a Project Steering Committee (PSC), Project Implementation Unit (PIU), and a dedicated Project Implementation Teams.

The Project Steering Committee will be the NCA BICIS Steering Committee. The PSC will monitor, supervise and co-ordinate the overall progress and implementation of the Project and will be responsible for approving the project deliverables. The Director General of NCA chairs the PSC. The PSC meetings will be held every three months (and more frequently, if necessary). Representatives of the EC Delegation to Bulgaria, the CFCU, the National Aid Coordinator (NAC), "European Integration and Monitoring" Directorate within the Ministry of Finance and Consultants/Suppliers representatives will be invited as observers to the SC meetings. Representatives of other institutions will be invited to the SC meetings, if the agenda requires.

The day-to-day project management will be carried out by the NCA PIU on the base of the decisions made by the PSC.

The Project Implementation Team comprises experts from the Customs Statistics and Automation (CSA), Customs Regimes and Procedures and Customs Intelligence and Investigation Directorates.

The NCA will support the implementation of the proposed project by assuring the necessary organisational environment and making available the necessary personnel.

The existing Training centre in Sofia, Plovdiv and Russe will be used for organising of training courses and seminars.

5. Detailed Budget

| | Phare/Pre- Accession Instrument support | (| Total Cost | | |
|---|--|---------------------------------|--------------------------|---|------|
| €M | | National Public Funds (*) | Other Sources (**) | Total Co- financing of Project | |
| Year 2006 - Investment support jointly co funded | | | | | |
| Component 1 "Further Development of the Bulgarian Electronic Customs System" | 1,500 | 0,500 | N/A | 0,500 | 2,00 |
| Component 2 "Supply of Equipment for Further Development of the Bulgarian Electronic Customs System" | 1,125 | 0,375 | N/A | 0,375 | 1,50 |
| Investment support – sub-total | 2,625 | 0,875 | N/A | 0,875 | 3,50 |
| % of total public funds | max 75 % | min 25 % | | | |

| Total project 2006 | 2,625 | 0,875 | N/A | 0,875 | 3,50 |
|--------------------|-------|-------|-----|-------|------|
| | | | | | |

^{*}The Phare contribution for investment costs will be no more than 75% of eligible public expenditure, the balance having to be covered by the national co-financing. The national co-financing will be provided by the "National Fund" Directorate at the Ministry of Finance. All operational and running costs and the maintenance of the equipment will be provided by the final beneficiaries.

6. Implementation Arrangements 6.1. Implementing Agency

Programme Authorising Officer (PAO):

Mrs. Gergana Beremska

State Treasurer, Ministry of Finance

102, Rakovski Str., 1040 Sofia, Bulgaria

Tel.: + 359 2 9859 2495 Fax: +359 2 9859 2499

The Implementing Agency for this project will be the Central Finance and Contracts Unit (CFCU) at the Ministry of Finance. The CFCU will be responsible for the tendering, contracting and payment activities under the project.

Contact details:

Mr. Lubomir Tushanov

CFCU Director

102, Rakovski str., 1040 Sofia, Bulgaria Tel.: +359 2 9859 2772, 359 2 9859 2777

Fax: +359 2 9859 2773

The Beneficiary will be responsible for preparing the Terms of Reference for the contract under the project.

The NCA PIU will be the main contact point for all official communications between the Consultant and the NCA concerning the implementation of the project.

Contact details:

Mrs. Milena Doncheva

Head of "Institutional Building and Phare Programme" Department

Central Customs Directorate

47, Rakovski Str. 1000 Sofia, Bulgaria

Tel.: +359 2 9859 4508 Fax: +359 2 9859 4129

6.2. Twinning

Not applicable.

6.3. Non-standard aspects

After the completion of component 1, there will be 12 months warranty period. Justification for the warranty period requirement is provided in Annex 7 of the Project Fiche.

6.4. Contracts

Two Contracts at the total amount of: **MEUR 3.5** Component 1: Service Contract: MEUR 2.00 Component 2: Supply Contract: MEUR 1.50

7. Implementation Schedule

7.1. Start of tendering/call for proposals

April 2007

7.2. Start of project activity

November 2007

7.3. Project completion

Component 1: "Further Development of the Bulgarian Electronic Customs System": October 2009*

Component 2: "Supply of equipment for Further Development of the Bulgarian Electronic Customs System" April 2008

*Note: After the completion of the Component, there will be 12 months warranty period. Justification for the warranty period requirement is provided in Annex 7 of the Project Fiche.

8. Equal Opportunity

Equal participation in this project of women and men will be enforced at the start of the project. All periodical progress review reports and other interim reports will include a specific chapter providing detailed explanations on measures and policies taken with

respect to this equal opportunity for women and men and will provide measurements of achievement of this goal.

9. Environment

Not applicable.

10. Rates of return

It is not possible to calculate the precise rate on the investment at this stage, but considering the improvements to be gained with the project implementation in the field of customs computerization, it is clear that the investment will bring about considerable rates of return.

11. Investment criteria

11.1. Catalytic effect:

The Phare support is essential for the implementation of the targets identified in the NCA Strategic documents.

11.2. Co-financing:

The investment part of the project will be co-financed from the Bulgarian State Budget. The Co-financing will contribute 25% of the investment part of the project. The funds will be provided through the "National Fund" Directorate within the Ministry of Finance.

11.3. Additionality:

The Phare intervention does not displace other financiers as no alternative funds have been allocated for the proposed project.

11.4. Project readiness and size:

The preparatory tasks for this project will be performed within a six-month period after the signature of the Financing memorandum. The work on the tender documentation will start as soon as the project fiche is approved by the Phare Management Committee.

11.5. Sustainability:

The project activities are in line with EU sector policy acquis.

The NCA will ensure the appropriate administrative capacity to be able to manage the maintenance of the system as well as ensure the continuous training of new users.

11.6. Compliance with state aid provisions

Not Applicable

12. Conditionality and sequencing 12.1. Conditionality

Not Applicable

12.2. Sequencing

The software development under component 1 will follow the Rational Unified process (RUP) methodology sequence including Inception, Elaboration, Construction and

Transition Phases. Within the phases the following standard activities/disciplines will be performed: Business Modelling, Requirements, Analysis & Design, Implementation, Testing, Deployment, Training.

Independent evaluation of the Terms of Reference for component 1 and Technical Specification for component 2 shall be covered by funding under Project Preparation Facility.

Annexes to project Fiche

- 1. Logical framework matrix in standard format
- 2. Detailed implementation chart
- 3. Contracting and disbursement schedule by quarter for full duration of programme
- 4. Needs assessment
- 5. Reference list of relevant laws and regulations
- 6. Reference list of relevant strategic plans and studies
- 7. Justification for the warranty period requirement

| LOGFRAME PLANNING MATRIX FOR | | Programme name and M | odernization of the Bulgarian |
|--|--|---|--|
| Project: | | Co M | ustoms Administration in onnection with the Future embership of the Republic of ulgaria in the European Union |
| COMPUTERISATION OF THE BCA IN LINE DEVELOPMENTS IN THE AREA OF ELECT | | Contracting period expires 30 November 2008 | End of execution period expires 30 November 2009 |
| | | Total budget: 3.5 ME | UR Phare budget: 2.625 MEUR |
| Overall objective | Objectively verifiable indicators | Sources of Verification | |
| Computerisation of the customs business in line with the EU standards and BCA requirements for realisation of simple and paperless environment for customs and trade and implementation of the security management model for the EU external borders | NCA in full compliance with the EU standards in the key areas of the Customs business addressed by this project as per the provisions of the EC Electronic customs decision. | | ntation |
| Project Purpose | Objectively verifiable indicators | Sources of Verification | Assumptions |
| Provide a software solution that will allow international exchange of data on pre-arrival summary and customs declarations, pre-departure summary declarations, economic operators and risk management in order to improve the effectiveness of controls against fraud, to expedite the flow of goods and to contribute to better supply chain security through interoperability with the Member States' electronic clearance systems. | - Successfully completed interconnectivity/ interoperability tests with DG TAXUD and the MS systems within the Transition iteration/s of component 1 Import, trader registration and risk information accurately exchanged between the BCA and the BCA counterparts, meeting response time objectives and SLAs; - Pre-arrival data exchanged provides the necessary information for risk based controls; - Improved entry control times. These indicators will provide the basis for measuring achievement during and after project completion. | | ntation Customs legislation and procedures compliant with the developments of the EU legislation and procedures. |
| Results | Objectively verifiable indicators | Sources of Verification | Assumptions |

Component 1 "Further Development of the Bulgarian Electronic Customs System"

Developed and functioning information system including the realisation of:

- International exchange of ICS data between customs office (CO) of entry point, CO of import and maturity of the system that is being CO responsible for point of control in case of diversion including information on:
 - o pre-arrival summary and customs declaration,
 - o initial customs declaration which will have be matched with a supplementary declaration.
 - o departure and arrival of goods, as well as the control results, etc.
- ICS data exchange with traders (importers, carriers, freight forwarders, etc.) for the cases when another member state /or member states apart Bulgaria is/ are involved in the import procedure.
- Exchange of risk information with the other MS and ensure that Community profiles are incorporated into BICIS.
- International exchange of data on registered economic operators.
- Connection with CCN/CSI for the purposes of the above modules.
- Integration with the BICIS modules.

Through developed and functioning Electronic Customs System including:

- Prepared Requirements Specification and Business Model based on the DG TAXUD specifications and BCA requirements;
- Designed Software Architecture;
- Established Implementation model;
- System Tested and Deployed.

Users and system administrators trained.

Operational and turnover to maintenance tasks completed.

Remedial work, if necessary, performed during the warranty period in order to ensure operational efficiency of the software.

- Quality, completeness and traceability of the project deliverables.
- Stability, modularity, quality and developed.
- Degree of conformity of the delivered solution with the business needs in terms of functionality required.
- NCA IT Strategy Implementation Sufficient administrative Progress Report.
- NCA Quality review reports after each iteration.
- Project's Progress Reports.
- Minutes of project tracking meetings.

capacity.

Close co-ordination with other initiatives in the sector.

| Component 2 "Supply of equipment for Further Development of the Bulgarian Electronic Customs System" The following types of equipment, software and services delivered: - Application server(s) - Database server(s) - Message passing server(s) - Workflow server(s) - Integration server(s) - Web server(s) - System management server(s) - Directory server(s) - Security and intrusion detection server(s) - Storage subsystem - Tape subsystem - Connectivity (Gigabit LAN, SAN) - Cluster services - Integration with existing equipment - Management and RAS Training on advanced technology topics. | Improvement of BICIS system performance. Improvement of BICIS system reliability. Decrease of the average workload of the equipment. Customs officers' satisfaction with the training program delivered. After the training the correct answers from tests will be more than 60% | Progress Report. | Availability of an adequate communication infrastructure for BICIS |
|--|--|------------------|--|
| Activities Component 1 "Further Development of the Bulgarian Electronic Customs System" | Means | | Assumptions |
| Development information system including the realisation: | Service contract with clearly stated deliverables | | |
| - International exchange of ICS data between customs office (CO) of entry point, CO of import and | | | |
| | | | |
| CO responsible for point of control in case of | Assurance management following RUP; | | |
| diversion including information on: o pre-arrival summary and customs | Assurance management following RUP; - Analysis and design using UML, SOA and J2EE; | | |
| diversion including information on: o pre-arrival summary and customs declaration, o initial customs declaration which will have | Assurance management following RUP; - Analysis and design using UML, SOA and J2EE; - Software implementation with J2EE and XML; | | |
| diversion including information on: | Assurance management following RUP; - Analysis and design using UML, SOA and J2EE; - Software implementation with J2EE and XML; - System architecture development | | |
| diversion including information on: o pre-arrival summary and customs declaration, o initial customs declaration which will have to be matched with a supplementary declaration, o departure and arrival of goods, as well as | Assurance management following RUP; - Analysis and design using UML, SOA and J2EE; - Software implementation with J2EE and XML; | | |
| diversion including information on: o pre-arrival summary and customs declaration, o initial customs declaration which will have to be matched with a supplementary declaration, o departure and arrival of goods, as well as the control results, etc. | Assurance management following RUP; - Analysis and design using UML, SOA and J2EE; - Software implementation with J2EE and XML; - System architecture development with XML and application servers; | | |
| diversion including information on: o pre-arrival summary and customs declaration, o initial customs declaration which will have to be matched with a supplementary declaration, o departure and arrival of goods, as well as | Assurance management following RUP; - Analysis and design using UML, SOA and J2EE; - Software implementation with J2EE and XML; - System architecture development with XML and application servers; | | |

| - Exchange of risk information with the other MS | | |
|--|--------------------------------------|--|
| and ensure that Community profiles are incorporated | | |
| into BICIS. | | |
| - International exchange of data on registered | | |
| economic operators. | | |
| - Connection with CCN/CSI for the purposes of the | | |
| above modules. | | |
| - Integration with the BICIS modules. | | |
| The above will be achieved through: | | |
| - Preparation of Requirements Specification and | | |
| Business Model based on the DG TAXUD | | |
| specifications and BCA requirements; | | |
| - Design of Software Architecture; | | |
| - Establishment of Implementation model; | | |
| - System Testing and Deployment. | | |
| Training of users and system administrators. | | |
| Complete the operational and turnover to maintenance | | |
| tasks. | | |
| Perform remedial work, if necessary, during the | | |
| warranty period in order to ensure operational | | |
| efficiency of the software. | | |
| Component 2 "Supply of equipment for Further | Supply contract with clear technical | |
| Development of the Bulgarian Electronic Customs | specifications | |
| System" | Experts playing the following roles: | |
| Delivery of the following types of equipment, | | |
| software and services: | - System engineers. | |
| - Application server(s) | - System Architects. | |
| - Database server(s) | - Trainers. | |
| - Message passing server(s) | - Etc. | |
| - Workflow server(s) | - Etc. | |
| - Integration server(s) | | |
| - Web server(s) | | |
| - System management server(s) | | |
| - Directory server(s) | | |
| - Security and intrusion detection server(s) | | |
| - Storage subsystem | | |
| - Tape subsystem | | |
| - Connectivity (Gigabit LAN, SAN) | | |
| - Cluster services | | |
| - Integration of existing equipment | | |
| - Management and RAS | | |
| - Disaster recovery considerations | | |

| Training on advanced technology topics. | | |
|---|--|---|
| | | Preconditions Finalization of the DG TAXUD user requirements for ICS, Economic operators registration system, RMS. |
| | | Completion of the design activities under the BG2004/016-711.09.02, component 1.1.1. |

DETAILED TIME IMPLEMENTATION CHART FOR THE PROJECT

Computerisation of the Bulgarian Customs Administration in line with the EU legislative developments in the area of Electronic customs

| COMPONENT | OMPONENT 2006 | | | | | | | 2007 | | | | | 2008 | | | | | | | 2009 | | | | | | Ī | | | | | | | | | | | | | | | | | |
|----------------------------------|---------------|---|---|---|---|---|---|------|--------------------|----|-----|-----|------|---|---|-----|------|-----|------|------|----|---|---|---|---|---|---|---|---|---|---|---|------------|---|-----|---|---|---|---|---|---|-----|---|
| | S | o | N | D | J | F | M | A | M | J | J | A | S | o | N | D | J | J] | F | M | A | M | J | J | A | S | O | N | D | J | F | M | [A | N | A J | J | J | A | S | o | 1 | ۱ I | , |
| Service contract: Component 1 | | | D | D | D | D | D | C | C | C | C | C | C | C | I | I | j | į | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | | | I | I | I | I | I | 2 | < | |
| Supply contract: Component 2 | | | D | D | D | D | D | C | C | C | C | C | C | C | I | I | 1 | [| I | I | I | X | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | I |) = = I: [= | mp | len | nen | | | | act | tinį | g p | oer. | iod | l; | | | | | | | | | | | | | | | | | | | | | | |

ANNEX 3 CONTRACTING AND DISBURSEMENT SCHEDULE BY QUARTER THE FULL DURATION OF PROGRAMME

| Project title: C | - | | | | 0 | | | dminis f Electr | | | with | | | | |
|---------------------|--|----|---|----|-----|------|------|--------------------|------|------|------|--|--|--|--|
| Contracting | Cumulative contracting schedule by quarter in €m (provisional) | | | | | | | | | | | | | | |
| | 2006 2007 2008 | | | | | | | | | | | | | | |
| | III | IV | I | II | III | IV | I | II | III | IV | | | | | |
| Service Contract | | | | | | 2,00 | 2,00 | 2,00 | 2,00 | 2,00 | 2,00 | | | | |
| Supply Contract | | | | | | 1,50 | 1,50 | 1,50 | 1,50 | 1,50 | 1,50 | | | | |
| Total contracting: | | | | | | 3,50 | 3,50 | 3,50 | 3,50 | 3,50 | 3,50 | | | | |

^{*}Note: The implementation period of Component 1 is comprised of 24 months period of execution and 12 months warranty period. The final payments will be effected 12 months after project acceptance.

| Disbursement | Cumulative disbursement schedule by quarter in €m (provisional) 2006 2007 2008 2009 III IV I III III IV I III IV I III IV I III III IV I III IV I III IV I III III IV I III IV I III IV I III III IV I III IV I I I I | Total | | | | | | | | | | | | | |
|--------------|---|-------|---|----|-----|------|------|------|------|------|------|------|------|------|------|
| | 20 | 06 | | 20 | 07 | | | 20 | 08 | | | 20 | 09 | | |
| | III | IV | I | II | III | IV | I | II | III | IV | I | II | III | IV | |
| | | | | | | | | | | | | | | | |
| Service | | | | | | 1,20 | 1,20 | 1,20 | 1,20 | 1,20 | 1,20 | 1,20 | 1,20 | 2,00 | 2,00 |
| Contract | | | | | | | | | | | | | | | |
| Supply | | | | | | 0,90 | 0,90 | 1,50 | 1,50 | 1,50 | 1,50 | | | | 1,50 |
| Contract | | | | | | , | | | | | | | | | |
| Total | | | | | | 2,10 | 2,10 | 2,70 | 2,70 | 2,70 | 2,70 | 1,20 | 1,20 | 2,00 | 3,50 |
| disbursement | | | | | | | | | | | | | | | |

Remark: For component 1 a payment of 2 % of the maximum contract value will be effected at the end of the 12-months warranty period. The warranty period for component 1 is foreseen to expire in October 2010.

Needs Assessment

Computerisation of the Bulgarian Customs Administration in line with the EU legislative developments in the area of Electronic customs

Component 1 "Further Development of the Bulgarian Electronic Customs System"

Simplifying customs procedures and processes, as well as providing for interoperable customs systems, accessible to economic operators throughout the Community, are the principal objectives of the electronic customs initiative. This initiative is based upon and in line with the Commission Communication on e-Government and the Council Resolution on a paperless environment for customs and trade. Member States will further commit themselves to the objectives of the electronic customs initiative when adopting the Electronic Customs Decision that, together with Regulation (EC) No 648/2005 and the modernized Customs Code, will provide a legal framework for this initiative.

By enabling the customs authorities to perform effective risk management and track the goods during their movement within the EU customs territory, **ICS** will contribute to combat fraud and to better supply chain security.

In the future, electronic declarations and the electronic submission of supporting documentation ought to be the rule whereas paper-based declarations will be the exception. However, one of the peculiarities of customs law in a customs union is that customs procedures often end in another Member State than that where they started. It is therefore not sufficient that electronic processing of customs declarations is possible in the Member State where a procedure starts or ends. The automated customs systems of the Member States and the Commission need to be interoperable so that information can be exchanged between them. Traders need electronic access to these systems to communicate and carry out their business with customs. This will allow for a seamless flow of data.

The **RIF/RMF** will not create any costs for traders. Compliant traders, customs administrations, and society in general will benefit from the use of RIF/RMF because these systems allow customs action to be better focused on higher risk (i.e. consignments posing a potential or real threat).

The establishment of a Community Risk Management system through which Community profiles are incorporated into MSs own national IT systems, thereby ensuring that equivalent action is taken to counter an identified threat.

The existence of a common accessible **register** will simplify and secure the customs operations throughout the EU since the customs administrations will be reassured about the identity of **traders**. As such, a reduction of fraud is likely to be achieved. Economic operators will benefit from the fact that they need to register only once in the EU for customs transactions in the Community.

Economic operators who are involved in the movement of goods crossing Community borders, including those established outside the EU, must be registered, particularly for the purposes of lodging electronic declarations, identification and risk management. Interoperable customs systems must enable them to register only once instead of having to register in each Member State where they lodge a declaration. A traders registration system is an essential element of inter-operable customs systems.

The financial estimation for Component 1 has been made following an analysis of the functionality to be realized under the project and relations with activities under linked projects, which are planned to realize provisions of the Multi-annual strategic plan.

It has been calculated based on the RUP methodology and taking into consideration the resource allocation for successfully completed projects.

The RUP foresee a proportion of project resources used for each activity during the various phases of the software development cycle. The actual costs are calculated as follows:

- The number of man/days utilised for implementation of successfully completed projects;
- Coefficients (Ratios) reflecting the ratio between the volume of functional requirements of the proposed project and that of completed projects;
- The number of man/days for the proposed project, obtained as a product of the actually used man/days for completed projects and the ratio for the proposed project;

The sums for the various project activities, obtained as product of the man/days for implementation of the project, the Ratio for the relevant activity as set in the RUP and the estimated daily rate of the contracted staff.

<u>Component 2 "Supply of equipment for Further Development of the Bulgarian Electronic Customs System"</u>

In 1999, under the Program for technological re-innovation of Ministry of Finance, the required infrastructure for BICIS was built – LAN in all customs offices, servers, workstations, printers, UPS and other equipment. This process of development of the BICIS infrastructure was complemented with the hardware, basic software and telecommunication equipment delivered under the BG 9806-02 project. All customs offices have been connected to the MF WAN, established for BCA to support the web-based BICIS 2.1.

Hence, the requirements for the normal exploitation of the operational business modules according to the current infrastructure architecture, have been ensured and will be the basis for further development.

In accordance with BCA's plans for BICIS development until and beyond 2007, BICIS shall be implemented as an integrated and centralised system comprised of a kernel and 17 business modules. The extension of the functionality of the system as well as the increased number of users shall be supported by extension and improvement of the infrastructure.

Adding new functionality in stage 4 of BICIS development will result in the following:

- Intensified information exchange between the customs information centres of DG TAXUD and BCA;
- Intensified information exchange with government and non-government organizations;
- Requirement to extend the system infrastructure from closed internal architecture to open to the public system both ways –providing information and exchanging information:
- Open the system to government and non-government organizations and public requires high level of security at the access points for the provided services;
- Two to three times increase of internal network traffic;

- Three to four times increase of the data that has to be processed and stored;
- Requirement to provide high-availability of data and services;

In order to accomplish the above mentioned requirements and the quantitative and qualitative criteria underlying BICIS development and operation, BCA has planned to improve the infrastructure in as follows:

- Extension of the existing server farm which is one of the main objectives of the project BG 2005/017-353.08.02 "Further Development of the process of the Bulgarian Customs Administration Computerisation and Development of a National System for Administering the Excise Duty Entirely by the Customs Administration(Component 1.3: "Supply of equipment for modernisation of the infrastructure supporting BICIS")
- Establishing of a second server farm for Disaster recovery center to provide business continuity in case of disaster or malfunction of the main computer center.

The extension of BICIS functionality and introducing automation that covers most of the customs business processes turns the customs information system into an extremely important element for the proper functioning of the customs control. After the accession to the EU the importance will become even greater because this system will service the customs control of the external borders of the EU. The significance of the information system leads to the need to take measures for increasing its security and reliability in order to minimize the risks from stopping the system in cases of malfunction or disaster.

The Disaster recovery center will be deployed in geographically different location. The location will be chosen according to all the requirements for establishing this type of computer centre and will be conformable to the existing network infrastructure. It will be using essentially the same configuration as the existing server farm after its extension. Each server farm consists of two elements - BICIS internal processing and Demilitarized zone. BICIS internal processing component provides the functioning of the system as a whole and consist of:

- Application server
- Database storage server

The component called Demilitarized zone has to be deployed between the internal system and Internet to:

- provide DDS and DTI services;
- provide these services for approximately 25000 external users;
- apply the security rules, processing and delivery of the data to the internal system at the exact location required by the user;
- provide secure interface for the users themselves.
- Provide 24/365 availability of services and load balancing

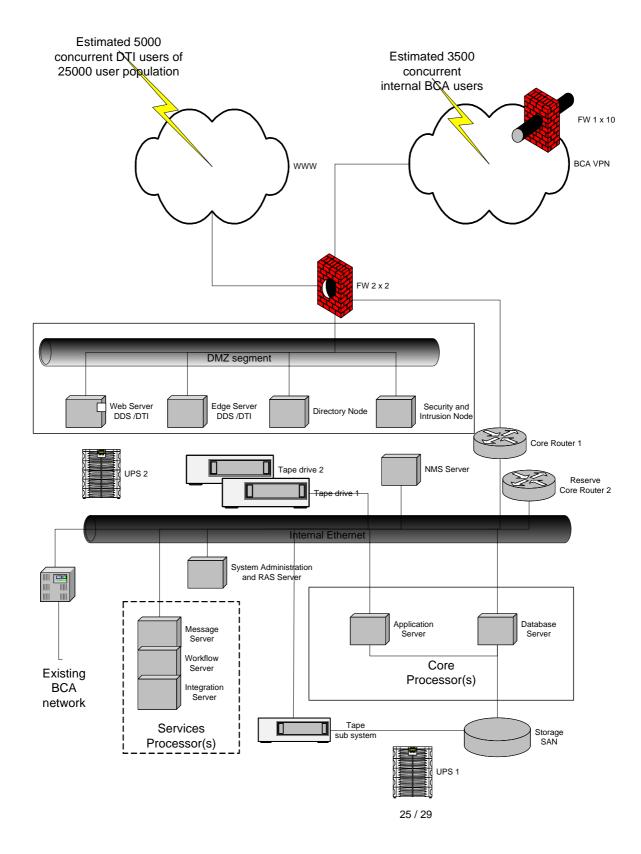
The component will consist of:

- Firewall
- Web Portal server
- Directory server
- Edge server

- Security and Intrusion node
- Router

The projected elements for these server farms are presented on the figure below.

BCA server farm schematic



The financial estimation for Component 2 has been made based on the specifications, prepared under component 1.3 "Supply of equipment for modernisation of the infrastructure supporting BICIS" and its budget forecast, taking into account relevant size and specifics of the project.

Reference list of relevant laws and regulations

Bulgarian national legislation:

Customs Act and Implementing provisions

EU legislation:

Community Customs Code and Implementing provisions

Reference list of relevant strategic plans and studies

- Business Strategy of the Customs Administration of the Republic of Bulgaria
- IT Strategy of the National Customs Agency

Justification for the warranty period requirement

After the developed systems under the project are deployed by the Consultant's teams, user acceptance tests are completed and the systems are transferred to the NCA and/ or the system integrator for maintenance, they are put into operation in all customs sites by NCA.

Following that, Project acceptance will take place if all contracted deliverables are accepted by the Beneficiary according to the evaluation criteria set in the Iteration plan for each iteration and certified by the Beneficiary with Iteration acceptance protocols.

Whereupon project acceptance occurs there will be a 12-month warranty period.

Normally, each specially developed software has some warranty period. If some problems with the exploitation of the software occur during the warranty period, the Consultant shall be responsible for solving these problems. The following types of problems could occur during the warranty period:

- System performance problems might occur during the exploitation of the system in a multiuser environment, due to uncovered inadequate product tunings during user acceptance testing. Product tunings correction might lead to changes in the software, which could generate functional errors.
- If it is difficult to run the full set of test cases, defects generated from the programming code might occur during system exploitation.
- If user acceptance tests are performed with a limited number of end-users, it might turn out
 that the product does not cover the technical requirements specified in the Vision and the
 Software requirements Specification during system exploitation when all potential users of
 the system operate with it.

Based on the above three examples, during the warranty period the Consultant will perform remedial work, if necessary, in order to ensure operational efficiency of the software and enable Bulgarian Customs Administration to continue to productively use it if any deviation of the normal exploitation according to the Vision and Requirements specification occurs.