0. Cover

ANNEX II.B – TECHNICAL ANNEX

Invitation to tender TAXUD/2013/AO-01

**Specification, development, maintenance and support of customs IT systems
(CUST-DEV3)**

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Typographic conventions

The following typographic conventions are used in this document:

Draws attention to important conditions

Indicates definitions or reference information

Indicates that this requirement must be clearly addressed in the tender

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0.2. INTRODUCTION

0.2.1. PURPOSE

This document provides the scope and the specifications of the work packages linked to the framework contract resulting from the present Invitation To Tender including the related services and deliverables. It also provides a description of the requirements (e.g. quality requirements and general requirements) and details about the pricing model of this framework contract.

0.2.2. OVERVIEW

This document (Annex II.B - Technical Annex) has the following structure:

Chapter 0	Introduction – this chapter
Chapter 1	Provides details about the scope of this Invitation To Tender
Chapter 2	Provides the specifications about the work packages of this Invitation To Tender. It also provides an overview of all services and deliverables linked to this Invitation To Tender
Chapter 3	Provides the price list requirements
Chapter 4	Provides the staff requirements
Chapter 5	Provides the quality requirements
Chapter 6	Provides the infrastructure and tool requirements
Chapter 7	Provides information on the Synergia programme and its link with this Invitation To Tender
Chapter 8	Provides information about IT transformations
Chapter 9	Provides the security requirements
Chapter 10	Provides more general requirements

0.3. ACRONYMS AND DEFINITIONS

Please refer to Annex II.C - List of abbreviations and definitions for a list of all abbreviations and definitions used in this Invitation To Tender.

0.4. REFERENCE DOCUMENTS

Please refer to Annex II.D - List of Reference Documents for a list of all reference documents applicable to this Invitation To Tender and that can be consulted from Annex XI – Baseline.

The CUST-DEV3 contractor needs to take into account that the baseline reflects the situation applicable at the time of publication this Invitation To Tender and that it will evolve.

The baseline contains all relevant specifications, documentation, source code and process specific information.

In case of a conflict between the applicable documents and/or source code, the following order of

decreasing precedence shall prevail, unless otherwise stated:

- The CUST-DEV3 Invitation To Tender (of which this document is part);

- TEMPO;

- International standards and best practices;

- All documents in the Invitation To Tender baseline.

The latest Release of TEMPO is to be used by the CUST-DEV3 tenderer. The list of TEMPO documents referred to in this document is only added in order to make the reading easier. They are neither exhaustive nor legally binding; they are only provided as additional information.

References to DG TAXUD are based on its organizational structure at the time of writing the Invitation To Tender and that is subject to possible changes.

1. Scope of this invitation to tender

The scope of the existing CUST-DEV2 and the future CUST-DEV3 framework contract is described in the following paragraphs.

1.1 Existing CUST-DEV2 contract scope

- **Management services**:
  - Project Management (contractual and operational)
  - Project Management (development activities)
  - Quality management
  - Risk management

- **Take-over and hand-over services**:
  - Perform all required services to take over the services from the incumbent contractor
  - Perform all required services to hand over the services to the Commission or to a designated third partyat the end of the current contract

- **IT Development services**:
  - Produce and maintain functional and technical specifications for customs applications and trans-European systems
  - Produce, test and maintain deliverables and services to build customs applications and services

- **Support services**:
  - Operate a Service Desk
  - Manage the assigned incidents
  - Manage problems, change requests and releases
  - Apply configuration management
  - Provide support for deployment of applications and trans-European systems
  - Participate to and support the customs business perspective: liaison with the Commission services, the National Administrators and other contractors
  - Provide training for customs applications when required
  - Apply the required security policy and requirements
  - Set-up, operate and maintain the required IT and Telecom infrastructure to support all required services

1.2 Scope of the CUST-DEV3 contract

This Invitation to Tender is to award a framework contract of a maximum duration of eight (8) years to cover the provision of specification, development, maintenance and support of customs IT systems.

The following provides a general description of the main service blocks to be delivered by the CUST-DEV3 contractor.

- **Management services**:
  - Overall programme and contract management including risk management
  - Programme Management Office services
  - Quality Assurance services

- Quality Control services

- Security management services

- Knowledge management services

- **Take-over and hand-over services**:

  - Perform all required services to take over the services from the incumbent contractor

  - Perform all required services to hand over the services to the Commission or to a designated third party at the end of the contract

- **Architecture and strategy services**:

  - Produce and maintain all relevant artefacts in the domain of architecture and IT strategy services such as enterprise architecture, reference architecture(s) and application architecture

- **Business analysis and modelling services**:

  - Produce and maintain all relevant artefacts in the domain of business analysis and modelling

- **IT system and application development services**:

  - The contractor will deliver all required services to maintain the existing customs IT application and systems and to build new ones:

    - Produce and maintain all required IT specifications

    - Build, test and integrate all required IT services

- **Support services**:

  - Deliver all required services to guarantee the continuity of the IT systems and applications:

    - Manage incidents, problems, change requests, corrective maintenance and releases in function of business and IT criticality

    - Apply configuration management

    - Provide support for deployment of IT systems and applications as required

  - Set-up, operate and maintain the required IT and Telecom infrastructure to support all required services

  - Participate to and support the customs business perspective: liaison with the Commission services, the National Administrators and other contractors

> **The above services could be extended if required to meet and serve the operational needs of other European policies, the associated National Administrations and the Commission.**

1.3 Take Over (WP.2)

The takeover activity is normally part of the first Specific Contract to be signed and should take between 6 and 9 months. The CUST-DEV3 contractor will take over all activities and their associated artefacts from the Commission, or a party nominated by the Commission. The takeover must be synchronised with the end of the services of the incumbent contractor. To ensure the service continuity, absolute priority will be given to start providing the taken-over services on the imposed date and maintaining at least the same quality levels as the incumbent contractor.

The contractor must ensure that, by the end of the takeover period, his staff has acquired all knowledge, his structure is entirely set, the IT development infrastructure, the existing support services and the required links with the other contractors, mainly ITSM2 lot1 and QA, are operational.

1.4 Hand Over (WP.3)

At the end of the contractual period, the CUST-DEV3 contractor will provide the appropriate trainings to the new contractor(s) and make available the totality of the knowledge acquired during the contract to DG TAXUD, or to any specified third parties on its behalf.

In accordance with instructions to be given by DG TAXUD, CUST-DEV3 will hand over:

- all CUST-DEV3 services/deliverables in their entirety;

- information supporting the services;

- any hardware and COTS (including the related maintenance contracts) used by CUST-DEV3 but for which the Commission is the owner;

- the latest complete versions of all software, tools and specifications developed or maintained by the CUST-DEV3 contractor for which DG TAXUD is the owner, free of any rights, unless otherwise agreed with the DG TAXUD.

The handover period represents the period, during the contract, when the incumbent contractor is required to transfer the project information and knowledge to DG TAXUD, or any specified third parties on its behalf. It is considered that this period should last between **6 and 9** months.

The CUST-DEV3 contractor must commit to:

- propose a draft Handover/Takeover plan, which will be published in the future ITT to provide similar services.

- Provide a playground consisting of the appropriate hardware/software (financed and/or provided by DG TAXUD) allowing the future contractor(s) to freely practice after each training session on a representative development/testing environment.

- Train the new contractor(s) using both physical and virtual classrooms (At least two sessions of the same training are to be foreseen at different dates) that are not relying on the playground for all transferred knowledge organised into topics such as:

    o Functional and technical descriptions of each application;

    o Interactions/interfaces between applications;

    o How to build a new version of each application;

    o How to package each application;

    o Coding guidelines and naming conventions;

    o Specificities of the development tools;

    o Specificities of the used technical frameworks.

- Provide the new contractor(s) with a comprehensive knowledge base at the start of the handover/takeover period.

- Provide the shadowing on representative subset of applications covering all technologies / difficulties and applications complexities.

- Be flexible in order to facilitate the alignment of the handover plan with the takeover plan(s) of the new contractor(s).

1.5 The CUST-DEV3 main service blocks

As from the take-over, the CUST-DEV3 contractor must be in a position to ensure the continuous provision of the services as defined in this Technical Annex.

The following describes the main service blocks which are developed in detail in this Technical Annex (Annex II.B - Technical Annex) in terms of work packages and its deliverables, price elements requirements, staff requirements, quality requirements, infrastructure and tools requirements, information on the Synergia programme and more general requirements.

1.5.1 Overall Management Services

This main service block is critical for the overall delivered quality. The various management and governance dimensions are further developed in WP.0.

1.5.2 Architecture and Strategy services

The architecture and strategy services mainly support the development of the customs enterprise architecture, the application and service architectures and various reference architectures and provide consultancy to IT development services and support to resolve important IT problems.

1.5.3 Business Analysis and Modelling services

The business analysis and modelling services mainly support the development and maintenance of the customs business processes. The latter are to be implemented by IT processes and services.

1.5.4 IT system and application development services

These services are to be applied to build new IT systems and applications and to maintain them in terms of business/functional and technical evolutions.

1.5.5 Support services

These services are to be provided to

- Support and use effective IT service support processes

- Support Business perspective activities

- Provide IT infrastructure and tools services

- Support important IT transformations

- Provide provisions for required services outside working hours.

1.6 ITSM2 activities linked to the CUST-DEV3 framework contract

At the time of writing this Invitation To Tender DG TAXUD is preparing the handover/takeover from the incumbent ITSM contractor to the new ITSM2 contractors. The ITSM2 contractors will have important interactions with the CUST-DEV3 contractor.

Refer to the documents:

- 'ITSM2 Lot1: Technical Specifications – As Is description [R011]' and 'ITSM2 Lot1: Technical Specifications – To Be definition [R012]' for the complete list of services that will be provided by the ITSM2 Lot1 contractor and

- 'ITSM2 Lot2: Terms of Reference [R013]' and 'ITSM2 Lot2: Technical Annex [R014]' for the complete list of services that will be performed by the ITSM2 Lot2 contractor.

Furthermore, refer to section 7 for more specific information on the Synergia programme and more details on the required interaction between the ITSM2 and the CUST-DEV3 contractors.

1.7   IFPUG FSM method

The CUST-DEV3 contractor will apply the International Function Point Users Group Functional Size Measurement (IFPUG FSM) method in order to determine the functional size of IT projects when possible. Please refer to heading 2.7 (IFPUG FSM Method) of Annex II.A (Terms of Reference). The standard to apply will be ISO/IEC 20926:2009 – Software and Systems Engineering – M1 II Function Point Analysis – Counting Practices Manual, which specifies the set of definitions, rules and steps for applying the IFPUG FSM method.

The resulting number of function points shall be the basis to determine the overall cost of a given IT project under the contract. The Commission shall validate the resulting number of function points determined by the Contractor. In case of disagreement on the determined number of function points, a third party, designated by the Commission, shall re-determine the definitive number of function points which shall be the basis to determine the overall cost of a given IT project. The Contractor shall accept this definitive number of function points and shall adapt his offer accordingly.

The referred third party must be certified for the IFPUG FSM method and shall act as auditor or quality controller

In line with the contractual and administrative background of DG TAXUD (point 2 of Attachment II.A – Terms of Reference of Annex 1 – Tendering Specifications), the third party can be the DG TAXUD quality assurance contractor, the ITSM2 benchmarking contractor (or his successor) or, in conformity with Article III.2.10 (Benchmarking), any other Commission contractor in charge of carrying out a benchmarking exercise.

2. Work packages, deliverables and planning required

2.1 Overview of the Work Packages

The following table describes the work packages covered by the Framework Contract (FWC).

	Work Package
[1]WP.0	**Management**
WP.0.1	Setup and Maintain the FQP
WP.0.2	N/A for this contract
WP.0.3	N/A for this contract
WP.0.4	Produce Proposals for Specific Contracts (SC) and Request for Actions (RfA) and produce RfA Acceptance Reports
WP.0.5	Internal activities: Quality Assurance (QA), Quality Control (QC), Risk Management (RM), Self-Assessment (SA), Internal Auditing (IA), Team Organisation and Management
WP.0.6	Interaction and Co-ordination with the Commission
WP.0.7	Contract reporting
WP.0.8	Demand management and planning
WP.0.9	Co-operate with the Commission during Quality Process and Security Audits
WP.0.10	Baselines
WP.0.11	Benchmarking and Pricing Update Mechanism
WP.0.12	CSIP
WP.0.13	Service Level Management
WP.0.14	Security Management
WP.0.15	Business Continuity Management
WP.0.16	Knowledge Management
WP.1	**N/A**
WP.2	**Take Over**
WP.2.1	Takeover activities
WP.2.2	Takeover of the IT Central Applications
WP.3	**Hand over**
WP.3.1	Handover Activities
WP.3.2	Handover of the IT central applications
WP.3.3	"After handover" support
WP.4	**Architecture and Strategy**
WP.4.1	Support on IT Strategy definition and implementation
WP.4.2	IT Portfolio and Master Plan definition and maintenance
WP.4.3	Architecture Framework Support: Vision, Methods and Evolution

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[1]   Any gap in the numbering sequence of WP or DLV is intentional and reserved for activities outside the scope of this ITT or for future use

	Work Package
WP.4.4	Enterprise Architecture development and maintenance
WP.4.5	Application and Service Architecture development and maintenance
WP.4.6	Application & Service Architecture management and support
WP.4.7	Support on ARIS and Architecture tools
WP.5	**Business Analysis and Modelling**
WP.5.1	Feasibility study
WP.5.2	Business analysis
WP.5.3	Production and maintenance of Business & System Process Modelling (Levels 1, 2 and 3)
WP.5.4	Production and maintenance of Business requirements
WP.5.5	Production and maintenance of Detailed Level 4 BPM (Business or Functional Specifications)
WP.5.6	Business test Criteria and Acceptance Test
WP.5.7	System Scope Management
WP.6	**IT Analysis and Design**
WP.6.1	Feasibility Studies or any activity linked to IT inception work
WP.6.2	IT Requirements
WP.6.3	IT System/Application system modelling
WP.6.4	IT Analysis
WP.6.5	IT Design
WP.6.6	IT Testing
WP.6.7	IT Implementation and Migration
WP.7	**Build, integrate and Test**
WP.7.1	IT Detailed Design
WP.7.2	Develop and Document Programs or Software Components
WP.7.3	Produce Supporting Manuals
WP.7.4	Test Design Specifications (TDS) – Test cases
WP.7.5	Execute Test Plans
WP.8	**Support Services**
WP.8.1	Business/operations support
WP.8.2	Configuration Management
WP.8.3	Release Management and software service transition
WP.8.4	ICT Infrastructure and Tools Management
WP.8.5	Specific support services
WP.8.6	The Business Perspective: Liaison with NAs, the Contractors and the Commission services
WP.8.7	Implement major IT transformations
WP.8.8	Support outside Working Hours
WP.9	**N/A**
WP.10	**Deliverables And Services on Request In The Scope Of The Framework Contract**

Table 1- List of the Work Packages

2.2   Specifications of the work packages

The following table gives a description of the work packages covered by the Framework Contract.

	Work Packages
WP.0	**Management**
	This work package covers all the activities needed to ensure the effective management of the Framework Contract and of the related Specific Contracts. It mainly relates to the management of the CUST-DEV3 contractor's activities, its internal team organisation and the co-ordination with the Commission. This work package also covers the management of all administrative procedures related to procurement, accounting and invoicing of all services covered by the Framework Contract.
WP.0.1	Setup and Maintain the FQP
	To setup and maintain the Framework Quality Plan (FQP), ensuring that activities described in this technical annex are organised according to quality requirements. The FQP specifies this in terms of processes, tools and organisational aspects. The FQP contains among other topics: - a Work Breakdown Structure (WBS) of the activities, - the structure of the overall Monthly Progress Report (MPR) and the Monthly Service Report (MSR); see section 2.3.5.3 for a MPR model, - a description of a Deliverable Tracking Matrix (DTM), - all relevant support processes (incident management, problem management, change management, configuration management, etc.), the internal processes in application for the contract, including team organisation and composition, Quality Assurance and Control procedures, the escalation process and rules, - the CUST-DEV3 contact list and organisational chart, - the "interaction model" between Commission and contractor (see section 4.3 for information on the interaction model with the stakeholders), - the Continuous Service Improvement Programme (CSIP), - the contractual Operational Level Agreement(s) (OLA) which defines service quality requirements, quality of services, quality targets, objective metrics to measure performance achieved and monitoring means for all services to be provided (refer to section 5.3.1 for more details on the OLA requirements). It can refer to the SLAs of DG TAXUD towards its customers, contractual OLAs between the Commission and its partners and Terms of Collaboration between the National Administrations (NAs) and the Commission. Each and every Specific Contract will have its contractual OLA which will become by default an annex to the FQP - the rules and procedures that the contractor will apply to ensure the confidentiality and the security of all the information relevant to the creation and the maintenance of the Framework Contract, - the external processes (aligned with the ITSM2 external processes document and based on all specific interfaces) and including the external reporting measures (e.g. reporting deliverables, meetings schedule, etc.). During the take-over, the CUST-DEV3 contractor will use the **FQP of the incumbent contractor** and only document how it will be implemented and list the major deviations, if any. This information will be included as annex to the Take-over FAT report. The CUST-DEV3 contractor will need to deliver the 'Sent for Review' version of the adapted FQP 3 months after the end of the take-over. The FQP will need revisions, reflecting the evolution of the programme and the quality procedures. All changes to the FQP and its related documents must be managed via Change management by the contractor. **At each major event, but at least once per year,** the FQP will be revised and updated

	Work Packages
	by the CUST-DEV3 contractor. The CUST-DEV3 contractor must deliver an up-to-date FQP at the start of the hand-over activities towards a new contractor. The FQP and its related documents are subject to a review involving DG TAXUD and stakeholders nominated by DG TAXUD. The FQP and contractual OLA template are available from TEMPO.
WP.0.2	N/A for this contract
WP.0.3	N/A for this contract
WP.0.4	Produce Proposals for Specific Contracts (SC) and Request for Actions (RfA) and produce RfA Acceptance Reports

	In the context of demand management[2], the contractor has to produce proposals on request from the Commission for Specific Contracts (SC) and for Requests for Action (RfA) to provide services and deliverables in the context of this FWC. Furthermore, once the services are to be accepted the contractor will produce an "RfA Acceptance Report" for every issued Request for Action (RfA).
	 The Commission will request proposals for SCs via the Request for Offer (RFO) form, and proposals for triggers and RFAs via the Evaluation Request (ER) and Request for Estimation (RfE) forms respectively.
	 The quotes must be expressed in quantities of service units, and associated unit prices, with reference to the price schedule of the framework contract and the budget provision.
	 The quality of the SC and RfA proposal process will be monitored by means of the time required to receive an acceptable offer/estimate.
	
	 Each proposal/offer will go through an internal review cycle (T1/T2/T3) which will be defined by DG TAXUD in the RFO, ER or RfE. The timely reception of an accepted proposal/offer will be measured by a Specific Quality Indicator (SQI09 in particular). This SQI value will contribute to the calculation of the Global Quantity Indicator (GQI) value applied on the level of the RFA (refer to section 5 for more information on GQI and SQIs). The planned delivery date starting the T1 review period and the proposed duration of T1/T2/T3 are defined in the RFO/RFE/ER forms.
	
	 If applicable, the amount of effort proposed to perform the work will be justified by using the IFPUG FSM methodology and applying the productivity rate specified in the price list.
	
	 When the services are completed and subject to Individual Acceptance a "RfA Acceptance Report" for every issued Request for Action (RfA), regardless its type (OD, QTM, etc.) has to be drafted and delivered by the contractor to DG TAXUD prior to the drafting of the "Acceptance Letter" by DG TAXUD. In this report, the contractor states:
	     – Deliverables data (i.e. deliverable ID/name, contractual/actual SfR/SfA dates together with the Ares registration reference communicated by DG TAXUD, deliverable delivery delays expressed in days, applicable SQI and references to verification report issued by QA contractor).
	     – Impact, if any, due to a delay in the submission of a deliverable for example,
	     – GQI, if applicable, of the RFA subject to acceptance,
	     – Consumption data (i.e. total units ordered, consumed, remaining) in case the RFA concerns the release of quantified services (i.e. meetings, missions, etc.).
	
	 Once this acceptance report is validated or accepted by DG TAXUD, the "Acceptance Letter" will be compiled and communicated to the contractor. During invoicing, the contractor has to provide all relevant acceptance letter(s) as part of the supporting documentation to the invoice. See also document 'A Guide on Ordering Process - RFA acceptance-Invoicing, and Reporting [R028]' for more details.

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[2] Demand management covers the follow-up of available quantities versus future needs, and the monitoring of orders (from Request for Estimation down to execution and closure of a Request for Action.

	Work Packages
WP.0.5	Internal activities: Quality Assurance (QA), Quality Control (QC), Risk Management (RM), Self-Assessment (SA), Internal Auditing (IA), Team Organisation and Management
	To manage internal activities
WP.0.5.1	Internal QA and QC
	To check the compliance of the activities and deliverables with the quality objectives, and with the contract standards and procedures. Quality inspections will be performed by the contractor's Quality manager. The main goal is to check the compliance of the activities and deliverables with the quality objectives, with the contract standards and procedures. The contractor also has to ensure the enforcement of the contractual OLA (refer to section 5.3.1 for more details on the OLA requirements) and has to trigger actions in case of deviations. The contractor must also ensure that if quality issues are detected that the necessary corrective measures are taken. The quality officer(s) must provide supervision and guidance to the contractor for the implementation of the quality throughout the whole project. The contractor must keep in mind that TEMPO is the mandatory methodology for all projects of DG TAXUD. The contractor is requested to maintain a list of internal quality assurance/quality control meetings and minutes of those internal meetings, to be kept available on site in case of audit by the Commission (see WP.0.9).
WP.0.5.2	Risk Management
	The contractor has to perform the Risk Management and report on this to the Commission via the Monthly Progress Report (MPR), including continuous risk analysis and mitigation. Risk management must be integrated into all main project management related activities and meetings and escalated when needed. The contractor must keep its internal risk analysis records available on request of the Commission. The risk management activities must adhere to the TEMPO Risk Management Technique The risk register must be available to DG TAXUD via the agreed toolset.
WP.0.5.3	Self-Assessment & Internal Audit: Control Compliance
	The contractor has to perform self-assessment and internal audits periodically, at minimum twice per year, for all service processes of the contract, report outcome/findings to the Commission and introduce the necessary improvements in line with the proposed Continuous Service Improvement Programme (CSIP) (as described in the FQP) and /or corrective actions. The contractor must follow-up the implementation of the actions agreed with the Commission and/or those resulting from the quality audit process. The self-assessment and internal audit activities must ensure that • this Technical Annex (Annex II.B - Technical Annex), the FQP and related contractual OLA (refer to section 5.3.1 for more details on the OLA requirements) are adhered to and implemented consistently across all activities, • any corrective measures are taken in case of deviation. Self-Assessment will be conducted by the contractor staff responsible for delivering the activities. Internal Audits will be performed by an authorised contractor's Quality Officer external to the team to ensure independence and objectivity. Furthermore, DG TAXUD has the right to request the contractor to conduct an internal audit on a specific project at any point in time. As for the other internal audits, this must be performed by an authorised contractor's Quality Officer external to the team. In such a case the report of the internal audit must be available no later than 3 weeks after the formal request made by DG

	Work Packages
	TAXUD. The contractor is requested to keep all self-assessment and internal audit reports available on site in case of audit (see WP.0.9).
WP.0.5.4	Internal Team Organisation and Management
	The contractor has to set up an internal team that • provides all required services; • functions as one team internally and externally • guarantees a uniform approach in terms of methodology and technical implementation. The team composition must ensure • the presence of an hierarchical structure in function of the size of the overall team and the different activities; • a correct balance of concentration and distribution of the acquired knowledge (the overall knowledge must be shared on the one hand by several persons responsible for sub-domains in order to reduce the risk of dependency on particular staff members but on the other hand not too fragmented amongst too many staff members such that the overall picture is lost); • the availability of expert knowledge on the fundamental horizontal elements (architecture, delivery, etc.); • the existence of a stable core team to guarantee continuity. Refer to section 4 for more information on the staff requirements. ⚠ The contractor must ensure that the staff will be fully aware of the quality system, the TEMPO quality methodology, the security requirements and the goal, the context, the planning and the political importance of the contract. ⚠ The contractor must ensure that all team members have the experience requested for their job and that they get the necessary induction and training as needed as soon as they join the team. In order to ensure a correct transfer of knowledge, a handover and takeover period must be organized with the staff leaving and the people replacing them without additional costs for the Commission.
WP.0.6	Interaction and Co-ordination with the Commission
	The contractor must put in place an organisational structure that supports the "interaction model" as specified in section 4.3. The contractor has to co-ordinate efforts with the Commission from a management and operational viewpoint. The contractor must prepare, hold and minute the various meetings with the Commission in the Commission premises. The availability of the contractor for the overall governance and management of the Framework Contract activities must be as follows: • bilateral monthly meetings (BMM) are planned in advance. The monthly meeting is organised to synchronise planning and to address any issues/risks linked to the different activities of the contract, • BMM follow-up meeting usually the day after the BMM at Commission Head of Unit level to handle all escalations raised during the BMM, • Multilateral meetings (e.g. all sectors of TAXUD and all TAXUD contractors) usually planned monthly in advance but could be called upon request at a mutual agreed date and time; • Steering Committee meetings, typically on a quarterly basis, chaired by the Commission and focusing on the strategic aspects of the contract and risk management, • Ad hoc meetings, called on request, at a mutually agreed date and time. Furthermore, operational oriented meetings and ad hoc meetings will take place, which steer the

	Work Packages
	provision of the services (list indicative and not exhaustive):

- meetings with the responsible DG TAXUD sector in the context of project, contract and supply management. These meetings can be organised on a bi-weekly basis in between two BMM meetings. These meetings concentrate on planning, issues, risks.
- Project progress meetings on a weekly basis. These will be organised on at least a weekly basis. It must be noted that all relevant staff of the contractor can be called to attend these meetings depending on the on-going project activities: project management specific aspects, functional aspects, IT technical aspects, IT architectural aspects;
- Working sessions for the different on-going activities attended by the relevant Commission and CUST-DEV3 contractor staff. It should be noted that the contractor's staff must be competent to contribute to the subject, meaning staff that has operational duties and responsibilities (e.g. business consultant, business analysts, IT analyst, IT designer, IT User Interface Designer, Test Designer, etc.);
- meetings with TAXUD/LISO related to security aspects,
- meetings with the responsible Commission sector related to the hosting of the systems/applications/components in the TAXUD datacentre.
- Ad hoc meetings, called on request, at a mutually agreed date and time.

The contractor will produce the **agenda, briefing material and the minutes** of these meetings. In case of conflict between the minutes and the contractual documents, the latter takes precedence.

The contractor produces and maintains **action lists** tracking at least the actions assigned to the CUST-DEV3 contractor during meetings. The action lists must reflect the status of the action implementation at any time. The action lists must be available to DG TAXUD via the agreed toolset.

WP.0.7	Contract reporting

To report to the Commission on a monthly basis via the Monthly Progress Report (MPR) and the included Monthly Service Report (MSR).

The contractor has to report to the Commission on a monthly basis via the **Monthly Progress Report (MPR)** about (list indicative and not exhaustive):

- the contractual situation, including the status of the activities (RFAs) and the consumption status of the ordered services/quantities,

- progress realised for the main activities,

- deliverables progress, status and deadlines,

- issues , problems and risks identified/updated during the reporting period,

- resource allocation,

- future plans,

- list of actions with deadline, status and responsible actor(s),

- list of all deliverables to be accepted through the MPR,

- cost allocation per system/application and project,

- list and status of change requests and related releases and

- quality management achievements, findings and concerns.

Moreover, a series of **annexes** with detailed information are also delivered with the MPR like (list indicative, not exhaustive): Asset inventory, SQI and GQI related data, Quantity and budget status report, DTM, Master Project Plan, Risk register, action lists, etc..

Furthermore, the monthly progress report will include the **Monthly Service Report (MSR).**

The contractor must propose an efficient structure of the MSR so that different blocks can easily be reviewed by the responsible TAXUD teams.

The monthly report will also include a Service Level Report which describes all the Service Quality

	Work Packages
	Indicators (SQI) and Key Performance Indicators (KPI) for the month, and the raw data for their computations.
	In cases where more than one SC run in parallel, the contractor may be requested to provide a bundle of MPRs, that is, one per SC.
	The FQP will define the structure of the Monthly Progress Report, as well as the content of the overall Monthly Progress Report based on the indicative model given in section 2.3.5.3 of this Technical Annex (Annex II.B - Technical Annex).
	The contractor has also to report to Commission on a **weekly basis** on the ordered and used quantities of the on-going Specific Contracts (SCs).
	The DTM linked to the on-going SCs will be annexed to the MPR and will be delivered to DG TAXUD on a **weekly basis**.
	⚠️All contractual information (incl. the information constituting the MPR and MSR) must be available to DG TAXUD via the agreed toolset.
WP.0.8	Demand management and planning
	To provide all relevant stakeholders with a view of the planned activities on a short, medium and long- term basis.
	The Commission is governing its activities based on management plans which are of a yearly (and in the future bi-yearly) and multi-annual level. The actual activities are derived from these plans and refined in terms of contents.
	The contractor is responsible to maintain
	• the contractual planning. This is currently expressed by a DTM containing all contractual dates and related information;
	• a forecast planning in line with the management plans of DG TAXUD. This forecast planning must contain a resource capacity estimate which is not contractually binding but must allow the contractor and DG TAXUD to anticipate as much as possible to resource fluctuations in the future;
	• a master planning for ordered activities and for activities 'near to ordering' allowing a day-to-day follow-up of those activities;
	• an operational planning providing information for all involved stakeholders. This planning is important as date changes for some activities can have an impact on other involved stakeholders, such as DG TAXUD staff, the QA2 and ITSM2 contractors, etc.
	• specific plannings for new projects which have a level of detail making it difficult to integrate these into the master and operational plannings. In this case the master and operational plannings will contain only the relevant activities and milestones of the project(s).
	The plannings must contain any dependencies from other project contributors such as the National Administrations, ITSM2 contractors, etc. The plannings will be maintained on the one hand with the support of a project management tool compatible with the one used at the Commission (currently MS Project) and on the other hand with the support of a Deliverables Tracking Matrix (DTM) tool as described in the FQP.
	The contractor must analyse regularly the above plans including the comparison to the baseline planning. Any deviation, risks and other results from this analysis must be reported to DG TAXUD.
	The contractor can be asked to review operational plans from other contractors such as ITSM2, QA2, etc. such to guarantee an overall consistency of planning aspects between all stakeholders.
	⚠️ The planning schedules will be annexed to the MPR (WP.0.7) and will be delivered to DG TAXUD on a weekly basis. The contractor must also keep the planning available for DG TAXUD via the agreed toolset.
WP.0.9	Co-operate with the Commission during Quality Process and Security Audits
	To co-operate with the Commission or any specified third parties on its behalf on requests for one

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	audit per year (on average) in the contractor's premises.
	It is expected that the Commission will conduct on average one quality process and one security audit per year in the contractor's premises but reserves its right to conduct more. The audit will be conducted by the Commission and/or a third party nominated by the Commission. The number and timing of these audits are determined by the Commission. The Commission will notify the contractor in advance of the timing for the audit.
	The contractor has to cooperate with and support the audit team during its entire mission.
	After the audit report is released, the contractor will issue his position regarding the points raised in the audit report. These will be discussed between the Commission and the contractor. Follow-up of the decisions, agreed between both parties, will be implemented via the MPRs, or if necessary, by conducting another verification audit in the contractors' premises.
	Note that audit reports are kept confidential.
WP.0.10	Baselines
	To re-deliver to Commission all artefacts to an electronic repository of the Commission in general infrastructure.
WP.0.10.1	Delivery of the full baseline
	To re-deliver to Commission, upon request but mainly once a year, all artefacts linked to the Framework Contract to an electronic repository of the Commission in general infrastructure.
	Apart from the scheduled delivery of artefacts, the contractor has to re-deliver to DG TAXUD upon request but generally once a year also a full baseline, i.e. DVD-ROM with the latest version of all deliverables since the beginning of the framework contract (even if they were not changed yet during the framework contract) as well as all the files that would be needed for a handover (e.g. export of all operational data, list of all contacts, etc.).
	The specific procedure together with more explicit criteria (e.g. what versions of some types of artefact to select) must be specified in the FQP.
	⚠ All artefacts must be anonymized if staff does not agree that their name appears in one of the artefacts (refer to section 4.2 for more details).
WP.0.11	Benchmarking and Pricing Update Mechanism
	To co-operate with the Commission or any specified third parties on its behalf on requests for one benchmark per year (on average) related to the costs of effort quoted by the contractor for its activities.
	The Commission may undertake a *Benchmarking* of the levels and the charges of the services and supplies provided under this Framework Contract by comparison with similar services and supplies provided by outsourcing vendors and/or in-house IT service providers and suppliers.
	The Commission will notify the contractor in advance of the timing for the benchmark.
	⚠ The tenderers have to be aware of the obligation to provide the possibility of regular benchmarking according to Article 1.1 and 2.10 of Annex X.A - Part III – General Terms and Conditions for Information Technologies Contracts.
WP.0.12	CSIP
	To define and run a Continuous Service Improvement Process (CSIP) linked to all services of the Framework Contract.
	The contractor has to define and run a Continuous Service Improvement Process (CSIP) so that findings on quality aspects resulting from either WP 0.5.4, WP.0.9 or collected via any other means are taken into account and improvements are identified, agreed with the Commission, implemented, applied and followed-up.
	In this context, the contractor must perform yearly a global risk analysis exercise resulting in proposals of improvements to be validated by DG TAXUD. Furthermore, the contractor shall

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cooperate with other contractors and stakeholders for the identification of improvement linked to the interaction between them. These proposals must be duly documented with a business case and integrated in DLV-0.12-2.

These improvements can be linked to the processes as well as the tools used to provide all services linked to the framework contract.

The CSIP process covers :

- The overall CSIP process follow up,
- Improvement identification and selection,
- The management of the major transformation projects,
- The change management of Service Improvement Projects.

CSIP is considered as an inherent function performed by the management of the CUST-DEV3 contractor. Implementation is measured by outputs that are directly linked to the improvement of the services.

Reporting on CSIP related activities is provided to DG TAXUD on regular intervals (included via WP.0.7).

CSIP proposals will be submitted to DG TAXUD for further analysis and comments. DG TAXUD reserves the right to reject implementation proposals. CSIP progress and new proposals need to be documented in the MPR.

WP.0.13	Service Level Management

Only Service Level Management is applicable in this Framework contract. The other Service Delivery[3] processes linked to the testing and production environment are performed by the ITSM2 contractor.

WP.0.13.1	Service Level Management

Maintain, monitor and report on the contractual OLA

Besides the SQIs that are contractually binding a set of Key Performance Indicators (KPIs) will be defined in the Framework Contract/Specific Contract(s). The KPIs will be used to continuously monitor the successful execution of the Framework Contract. During the lifecycle of the Framework Contract, the Commission can update the list of KPIs linked to the Framework Contract. These changes will be applicable from the next Specific Contract onwards. The CUST-DEV3 contractor will have to report on all the SQI's and KPIs in the MSR/MPR (WP.0.7).

The contractor must ensure that the agreed contractual OLA (refer to section 5.3.1 for more details on the OLA requirements) plus the process and tools linked to the Service Level Management are implemented before he starts the actual provision of the taken over services.

The contractor will produce and maintain its **service catalogue**. The service catalogue will contain all services against which a Service Request can be issued via the ITSM2 lot 1 service desk tool set (refer to WP.8.1.1.3 for the management of Service Requests).

The contractor will have to perform minimum once a year a **user satisfaction survey**. The list of questions and the user population will have to be agreed with DG TAXUD (By default all registered users). The outcome of this survey must be documented in a report and follow up actions must be managed by CSIP (See WP.0.12).

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[3] Except for the development environment for which the contractor is responsible for all service support and service delivery processes.

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WP.0.14	Security Management
	The contractor will perform the activities **compliant with TEMPO security management and EC standards**. In particular in the case of information system development (system supplier), **the contractor will apply the TEMPO "*Security Software Development Lifecycle*" reference manual** (TMP-REF-SDLC-v1.00), in line with the EC "*Standard on Secure Systems Development*". As such, it will deliver a Security Plan to the Commission. Other specific EC standards to consider especially during the development of information systems are the "*Standards on Technical Vulnerability Management*", "*Standard on Mobile Code*", "*Standard on IS Security Incident Management*" and "*Standards on Logging and Monitoring*".
WP.0.14.1	Produce and maintain a Security Plan
	The contractor must produce and maintain a Security Plan covering all SCs in effect which is describing the infrastructure of the contractor and the security measures the contractor will take to secure this infrastructure from accesses from outside the CUST-DEV3 zone and to assure the delivery of its contractual services. Regarding organisational security control, the contractor must at least, without prejudice to the implementation of other security controls as required by TAXUD: • nominate a security manager that will coordinate security management activities and directly liaise with TAXUD LISO for all these security related activities, • define an internal security organisation appropriate to the contractual activities, • provide security trainings and awareness sessions to its personnel, • manage and report security incidents, • implement security controls to monitor its compliance with its security obligations. Business continuity measures and a disaster recovery plan can be annexed to the security plan. The contractor has to report his security-related activities and recommendations to the Commission through the Monthly Progress Report.
WP.0.14.2	Integrate Security Requirements
	The contractor must integrate the security requirements from the TAXUD security policies in the execution of all Work Packages. The contractor must make sure that all security requirements are known by all CUST-DEV3 teams for implementation. It is part of the overall Quality Control activities to validate if the security requirements are implemented correctly. TAXUD policies may be supplemented by good practices e.g. from ISO standards on areas where no TAXUD policy is available. The baseline for security requirements should cover at least: • requirements for security controls must be identified during specification phase, • input data validation against threats (e.g. SQL injection, cross site scripting, oversized input…), • internal processing control (e.g. protection against buffer overflow, appropriate logging, …), • cryptographic control (e.g. proper key management, traffic encryption requirements, …), • least privilege principle for installation (e.g. application should not require root privilege to be installed), execution (application should not be run using root privilege or with privilege that allows modification of the installed application: application should run on a hardened system) or data access (access to database should not be done with a user that allows full control or full view of the information), • protection of source code, • compatibility with reference configuration (e.g. TAXUD desktop standard configuration, DIGIT servers configuration, …), • protection of test data (e.g. sanitisation, protection in a similar way to production systems, protection of data during exchange, …)

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	• antivirus protection for all files exchanged through the system,
	• documented patch process, including application patch procedures, procedures for patching of underlying OS or middleware,
	• documented logging functions of the application, that ensure full user traceability of all actions, error logging, security logging,
	• Integration of security best practices (e.g. as OWASP, …) or common security functions (e.g. as logging, virus checking, input validation,…) into the central application configuration baseline).
	Detailed explanations on the contractor role in the definition, implementation and testing the of the security requirements during all the activities pertaining to the development lifecycle can be found in [TMP-REF-SDLCv1.00.doc]
WP.0.15	Business Continuity Management
	This work package covers all activities to support DG TAXUD in their business continuity process execution.
	DG TAXUD performs on a regular basis business continuity process tests such to assure that all processes and procedures are set up in case of a real discontinuity.
	The CUST-DEV3 contractor will be requested to provide contact details of management staff which can be contacted for business continuity reasons. The list should be in cascade of management roles.
	The persons to contact must be in a position to take initiatives to support DG TAXUD in actions where the CUST-DEV3 contractor is competent.
WP.0.16	Knowledge Management
	This work package covers all activities to be performed by the CUST-DEV3 contractor to build an efficient knowledge management covering all the services of the CUST-DEV3 contractor. The work package covers mainly 2 types of activities:
	• Produce and maintain a knowledge base for all stakeholders;
	• Knowledge transfer within the CUST-DEV3 organisation.
WP.0.16.1	Produce and maintain a knowledge base for all stakeholders
	This work package is covering the required activities for the knowledge base elaboration and dissemination. All knowledge related to CUST-DEV3 services shall be captured and maintained live through appropriate processes.
	It must allow all stakeholders (internal and external to the CUST-DEV3 contractor) to post and obtain relevant information improving the overall knowledge about all CUST-DEV3 services using 'non document' techniques.
WP.0.16.2	Knowledge transfer within the CUST-DEV3 organisation
	This work package covers specific knowledge transfer activities within the CUST-DEV3 internal organisation. A specific example of such an activity could be the transfer of all relevant knowledge when a new system/application is near to the end of its initial project lifecycle and goes into maintenance and support lifecycles.
	These activities must be traced by reports which must be available on-site and provided to the Commission within 3 working days upon request.
WP.2	**Take-over**
	The takeover will not be organised as a 'big bang' but will be performed in phases, especially for the takeover of the customs systems and applications. At the end of each and every phase, the CUST-DEV3 contractor will, following a successful FAT execution, become fully responsible for the taken over applications and be ready for operational support and maintenance activities.
	The key objectives of the takeover are to:
	• ensure continuity of the existing processes in place and for which DG TAXUD is

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responsible;

- be ready to deliver all required services;
- establish clear communication channels in the context of all involved systems and applications;
- ensure that proper coordination and collaboration strategies are put in place with all involved stakeholders; if needed, meetings will be organised to meet the key actors of other entities and to confirm the coordination processes;
- formalise the transfer of responsibility from the incumbent contractor to CUST-DEV3 and define a clear reference baseline on the status of the specifications, software and related documentation;
- take over the security procedures and enforce them within the team.

The takeover must not affect the quality of service delivered, regardless of the situation in which the system or application will be at the time. CUST-DEV3 is responsible for taking all steps required in order to achieve a rapid induction and a seamless takeover of all activities so that any scheduling requirements or deadlines of DG TAXUD can be met.

The following describes the activities to be performed for all takeovers. WP.2.2 describes the execution of the takeover of the IT Central Applications WP.2.1 describes the execution of the other take-over activities.

Produce the Take-over Plan

The first key activity at the start of the takeover will be to define a detailed takeover plan in accordance with the offer. The plan should consider resources, scheduling, deliverables and acceptance of all deliverables.

The take-over plan should be based on the following assumptions:

- The incumbent contractor will supply the required services until the end of the contract using its existing infrastructure. This implies that the new contractor will have to set up a parallel infrastructure to perform the take-over activities for the specifications and software of all customs systems and applications. This infrastructure will be provided by DG TAXUD as described in chapter 6 and the CUST-DEV3 contractor will be expected to plan and carry out the necessary software installations and maintenance;
- The take-over activities should be planned in phases, allowing an item-by-item validation of the readiness of the contractor in order to reduce the risk of interruptions. **All** activities must be included in the takeover plan;
- The take-over plan must guarantee the smooth transition of all specification, development, maintenance and support activities without any discontinuity of services;
- The take-over will be planned according to the end date of the existing contract with the incumbent contractor and as such must be synchronised with the end of the services of the incumbent contractor;
- At the end of each take-over phase, all responsibility will have completely switched to the new contractor.

The take-over plan must be aligned with the handover plan of the incumbent contractor and must include (but is not limited to) at least the following points:

- a description of the take-over methodology, including a change management approach especially for the IT systems and applications which are subject to patches during the take-over activities;
- an inventory of items in the scope of the take-over;
- a description of all activities in the scope of the take-over;

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- a detailed schedule of the activities;

- a strategy for the take-over FATs;

- a knowledge transfer strategy in terms of the management approach, activities and planning;

- a risk management strategy in terms of the management approach, activities and planning (the minimum requirement is a risk analysis with mitigation and a fall back plan);

- a detailed schedule of activities involving required stakeholders.

Ramp up Team

The CUST-DEV3 contractor's team(s) must be staffed as proposed in the CUST-DEV3 tender and agreed with DG TAXUD, allocated to the activity and must remain allocated as of the signature of the first Specific Contract and the takeover activities. When leaving the framework contract, staff linked to key profiles (refer to section 4.2) must ensure the complete handover of all acquired knowledge according to the knowledge management strategy outlined in the takeover plan and FQP.

The CUST-DEV3 contractor's takeover team must be sufficiently sized and of the highest professional standards to be able to manage the DG TAXUD IT environment, IT and administrative/contractual processes and organisational complexity. The takeover team must be able to start its duties as of the date of signature of the Specific Contract that will include the takeover duties. Any delay in composing/staffing the team places risk on the overall takeover.

The CUST-DEV3 contractor will be expected to cooperate with DG TAXUD, the incumbent contractor, the ITSM2 contractors, and other third parties nominated by DG TAXUD.

Attend Training Sessions

DG TAXUD, mainly via the incumbent contractor, will provide training, at no cost to the CUST-DEV3 contractor. Training will be provided concerning the applications, the global architecture, CCN/CSI, TEMPO and any other relevant domain that is deemed necessary. The CUST-DEV3 contractor must ensure that the maximum number of staff (at least all staff linked key profiles (refer to section 4.2) without exception) will be available to attend these training sessions. The training will be provided with the purpose to **"train the trainer"**, so that the participants who followed the training sessions can later provide the same training sessions for all CUST-DEV3 teams. DG TAXUD will only finance the takeover training once and it is then up to CUST-DEV3 to keep the knowledge internally regardless of any potential staff turnover. Such knowledge will be registered as per WP.0.16.1. Attendance to training sessions should be accounted via WP.8 but also described and scheduled in the takeover plan.

Validate the Baseline

The CUST-DEV3 contractor must re-assess the status of the baseline to be taken over at the time of the takeover to ensure that all deviations between the baseline at the time of the preparation of the Invitation To Tender and the start of the takeover are taken into account.

Setup Office and IT Infrastructure

Refer to WP.8.4 and section 6 for more details on the tasks to be performed.

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Validate Success Criteria

The following (non-exhaustive) list of takeover success criteria will be used to measure the readiness of the CUST-DEV3 contractor to start the services linked to this Framework Contract:

1. CUST-DEV3's team is available, organised, trained and knowledge is kept and shared;

2. The contract organisation (cfr. All WP.0 sub activities) is in place and functioning, including all aspects for the correct functioning of the Programme Management Office;

3. The office and development environment at the CUST-DEV3 contractor's premises is available, including all supporting tools needed;

4. The integration and test environments at the DG TAXUD data centre have been set up and are available, including all supporting tools needed;

5. The CUST-DEV3 contractor has gained a profound knowledge of all services, specifications and software to be taken over;

6. Supporting and service management tools are available and have been adapted (where needed) to provide automated services and the CUST-DEV3 contractor's team is ready to use them (e.g. automated test tools, SMT, DML etc.);

7. The CUST-DEV3 contractor can demonstrate its readiness to take-over the services, e.g.:

   - Ready to provide corrective and evolutive maintenance activities for the taken-over IT systems and applications and related bespoke software;
   - Ready to deliver 3rd level support on all specifications, software and related documentation which have been taken over.

The following aspects (non-exhaustive list) will be checked in order to validate the success criteria:

- Production of all contractual reporting and its availability via the project portal;

- Correct handling of demands from DG TAXUD;

- Correct handling of 3rd level incidents assigned by the ITSM2 Service desk;

- Correct handling of problem management;

- Correct handling of change requests (evolutive maintenance);

- Performance of corrective maintenance (e.g. bug fixing) for the taken over applications/components within the agreed timeframe;

- Successful installation of each application/component on the test environment at DG TAXUD data centre;

- Performance of testing up to FAT of new releases according to the test plans;

- Correct packaging of new releases including related operational documentation and delivery to DG TAXUD as per procedure and updated in the DML;

- Production of an updated version of the specification documentation and delivery to DG TAXUD as per procedure and updated in the DML;

- Provision of service transition support to ITSM2.

Produce FAT Report

A FAT report should be produced after each and every phase whereby services have been taken over.

Produce the Final Take-over Report

Once all of the takeover activities in WP.2.1 and WP.2.2 have been completed, an overall take-over report should be produced and should include a section on lessons learned.

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	Update the FQP The CUST-DEV3 contractor will take over the CUST-DEV2 Framework Quality Plan (FQP) as the production of a new CUST-DEV3 FQP is not foreseen during the takeover (please refer to WP.0.1 for more details on the FQP). Consequently, all processes are to be performed as specified and are only subject to change in the context of the CSIP. The same principle applies to the tools. The takeover activities should contribute to optimising the definition of the quality framework of the contract and proposals for modifications to the FQP can be gathered during the takeover period. An updated FQP should be delivered no later than 3 months after the takeover has been completed.
WP.2.1	Take-over Activities
	This work package describes the execution of all activities required for all take-overs with the exception of the execution of the takeover of the IT Central Applications, which is covered by WP.2.2. **Execute Take-over** According to the schedule and strategy of the takeover plan, the CUST-DEV3 contractor will take over: - The maintenance and operation of the development-related IT equipment (hardware and software) in the DG TAXUD data centre (see WP.8.4 for more details); - All the items and the artefacts of the business and analysis domain as delivered in the baseline at the time of takeover; - All items and artefacts of the architecture and strategy domain as delivered in the baseline at the time of takeover; - All ARIS customisation artefacts: scripts, filters, reports, etc. at the time of takeover; - All items and artefacts of the IT systems NCTS, ECS and ICS at the time of takeover; - All items and artefacts of the SPEED2 platform at the time of takeover; - All items and artefacts of any horizontal nature which are of importance or interest to the new contractor as delivered in the baseline at the time of the takeover. The takeover should be organised using a phased approach and after each phase all responsibility will have completely switched to the CUST-DEV3 contractor who must be ready to: - Provide corrective and evolutive maintenance activities for the taken over items and artefacts; - Deliver support for all specifications, software and related documentation which have been taken over.
WP.2.2	Takeover of the IT Central Applications
	This work package concerns the execution of the takeover of all IT central applications. The scheduling of all IT central application takeover activities should be defined in the takeover plan (see WP.2.1). For **each** application, the following activities must be completed: - Ramp up of the team, ensuring the availability of designated resources with application-specific knowledge; - Attendance to training sessions; - Set up of development, integration and FAT environments for the takeover; - Definition of FAT scope in the Acceptance Test Plan (ATP); - Takeover of all items and artefacts of the IT central application as delivered in the baseline at the start of the takeover; this implies activities such as installation, assuring that all items are under configuration management, perform all required activities to master the specifications and the software;

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	• Takeover of patches which have been produced by the incumbent contractor during the takeover period and not delivered on the baseline at the time of the start of the takeover; • Execution of the takeover FAT as specified in the ATP; • Production of the FAT report. Furthermore, for each IT central application, the CUST-DEV3 contractor must produce an analysis report counting the IFP points. Once accepted, this will determine the application category as explained in section 3.2. From that point onwards, the IFP price per application category will be applicable. At the end of each and every IT central application takeover, the CUST-DEV3 contractor must be able to start the applicable maintenance and support activities for that IT central application.
WP.3	**Hand Over**
	To hand over part or whole of its activities to the Commission, or any specified third parties on its behalf, at the end of the contractor's framework contract, or earlier on request from the Commission. The Commission may request the contractor to take specific steps to hand over part or whole of its activities to the Commission, or to a third party, at the end of the contractors' framework contract, or earlier on request from the Commission. If requested by DG TAXUD, CUST-DEV3 will be responsible for the physical move of the IT infrastructure to the DG TAXUD Data Centres, the new contractor, or to any third party nominated by the Commission.
WP.3.1	Handover Activities
	The CUST-DEV3 contractor must prepare all activities required for a successful handover to the new contractor. All activities should be described and scheduled in a handover plan. The handover plan must be synchronised with the new contractor's takeover plan. During the handover period, the CUST-DEV3 contractor will transfer the totality of the knowledge acquired during the contract to DG TAXUD, or to any specified third parties on its behalf. This includes (but is not limited to) all tools, all documentation, all deliverables, scripts, and all other internal procedures, tools and packages. The CUST-DEV3 contractor will provide appropriate training and coaching to allow the new supplier to takeover, whilst assuring continuity during this period. The handover process includes the following phases: • **Planning:** to set up the list of all activities, resources, deliverables and milestones required to successfully perform the handover to the Commission or any designated third party. This plan will be proposed by the tenderer in his answer to this Invitation To Tender. • **Preparation:** to identify, collect and store all deliverables required to allow a smooth and complete transfer of knowledge from the incumbent contractor to DG TAXUD, or to any specified third parties on its behalf; to prepare, when required, training sessions for the project team of DG TAXUD or to any specified third parties on its behalf; • **Implementation:** to effectively perform the transfer of the project knowledge (using planned training and ad-hoc technical meetings) and deliverables (documents, software, hardware) from the incumbent contractor to DG TAXUD, or to any specified third parties on its behalf; • **Follow-up:** to provide assistance to DG TAXUD or to any specified third parties on its behalf during the handover process. All support activities related to the transfer of knowledge (ad-hoc technical meetings) from the CUST-DEV3 contractor to DG TAXUD or to any specified third parties on its behalf must be included. The CUST-DEV3 contractor **may not** ask DG TAXUD or any specified third parties to pay (within a bi-lateral contract) for support during the handover due to the fact, amongst others, that intellectual property generated during the current Framework Contract belongs to the Commission. Failure to pass on the information and knowledge to the Commission or to a designated third party

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	will result in non-payment of the management services of the CUST-DEV3 contractor during the handover period.
	This work package covers the handover of all artefacts, tools and related documentation except for those related to the IT central applications which are handed over as part of WP.3.2.
	The contractor must ensure (besides the deliverables via WP.0.10) that all security sensitive information and personal data (such as personal names, telephone numbers, company names, etc.) is removed from all deliverables and source code before the handover.
	Once all of the handover activities in WP3.1 and 3.2 have been completed, a handover report should be produced including a section on lessons learned.
	Handover SAT
	A **Handover SAT plan** will be submitted for review one month after the start of the handover.
	The activities and services to be conducted towards the end of the hand over period – shall consist, as a minimum, of the following checks (this list may change – by common agreement – half-way through the hand-over period) :
	• The services, infrastructure owned by the Commission and hosted at the incumbent contractor premises, the whole of the live and historical data and tools;
	• Software licenses have been fully transferred including the third party maintenance contracts. The CUST-DEV3 contractor must ensure on time the actions required for the transfer of maintenance;
	• Proof of decommissioned items as agreed upon during handover planning has been provided;
	• The exhaustive list of project deliverables (including provided during the HO preparation and execution) required to allow a smooth and complete transfer of knowledge that has been handed over to the new contractor(s);
	• The full inventory of HW/SW assets with maintenance status (type and coverage, end date, etç) has been handed over;
	• All connections with the Commission-owned infrastructure have been closed down;
	• An administrative statement of intent assuring that existing users have been fully disconnected is issued to DG TAXUD;
	• The remote connection tokens have been returned to DIGIT and all logins and passwords and other credentials wherever required; including the ones used for accessing BIOS, OS, middleware, websites, and third-party support tools have been handed over;
	• All keys and other access control devices granting access to computer units, racks, etc. have been handed over;
	• All training sessions for the new contractor(s) have been performed;
	• All hand-over meetings with the new contractor(s) during the handover/takeover period have been minuted and all agreed actions have been implemented;
	• A list of potential "remaining" risks to be handled should be provided;
	• All RfA's have been completed and all incidents assigned to the CUST-DEV3 contractor have been addressed, and their current status and next steps required for their resolution registered in the SMT answered.
	A **Handover SAT reporting,** listing the results of the execution of the **Handover SAT plan** will be submitted for review 5 working days after the end of the handover period.
WP.3.2	Handover of the IT central applications
	This work package consists of handing over all the activities related to the IT central applications including all documentation, source code and reports.
	The scheduling of all activities and deliverables required for the IT Central Application handovers should be defined in the handover plan (see WP.3.1) and should include the following:
	• Final outstanding defect list to be handed over;
	• Final baseline of application source code and related documentation;

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	Training sessions are to provided using WP.8.6.2 and must include: • Training sessions concerning the applicable architectural solutions; • Training sessions focused on each specific central application; The contractor must ensure (besides the deliverables via WP.0.10) that all security sensitive information (such as logins, passwords, IP addresses, etc.) and personal data (such as personal names, telephone numbers, company names, etc.) is removed from all deliverables and source code before the handover.
WP.3.3	"After handover" support
	The CUST-DEV3 contractor must provide a support service of 3 months to the takeover party as from the successful handover. At the end of the successful handover/takeover period, the CUST-DEV3 contractor will continue to offer "after handover support" for a duration of 3 months. This "after handover support" will consist in offering stand-by (on-call) support for the new contractor(s). This support should be provided by the CUST-DEV3 contractor subject matter experts and cover all services provided in the scope of the framework contract; particular care should be given to ensure subject matter expertise with all in-flight projects at that particular period of time. The handover plan shall document how this service will be implemented; as a minimum it should document the profiles on stand-by during the after handover support period. The CUST-DEV3 contractor must commit to start the intervention (A person with the appropriate level of expertise is effectively working on the request) within: • 2 Working-hours for Critical (Priority=1) incidents: • Half a Working-day for High (Priority=2) incidents; • One and a half Working-day for Medium (Priority=3) incidents; • Two and a half Working-days for Low (Priority=4) incidents. During the "After handover support" period, a weekly reporting will be submitted by email, to DG TAXUD. This will cover all activities performed during the week and will be submitted on the first working day of the following week. At the end of the "After handover support" period, the handover report produced in WP.3.1 will be updated with a section describing the activities and the final status of all activities performed during the "After handover support" period. The report will be resubmitted to DG TAXUD for review and acceptance (SfR + SfA).
WP.4	**Architecture and Strategy**
	The contractor will provide the following services and their associated deliverables: • Support to define, maintain and assess the IT Strategy for EU Customs, the follow up of its implementation and its impact on the various IT and Business objectives. • Produce and/or maintain an IT Portfolio and Master Plan laying out the projects portfolio for the following 5 to 10 years and their high level planning of implementation according to the IT Strategy and the business priorities and objectives. • Develop and maintain an Architecture Framework and methods for the EU Customs in general and for DG TAXUD in particular. • A coherent Enterprise Architecture for EU Customs must be developed and/or maintained according to the agreed Architecture Framework. • Development of the evolution and maintenance of the Application and Service Architectures for TAXUD systems design and build and for the EU Customs systems integration. • Support the different layers of implementation of the application and service architecture into the applications and services • Support on the use and maintenance of architecture and modelling tools in general and on

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	the ARIS tools specifically
	Whatever the scope and context of any request within any WP.4.X, the delivery must by all means assess the impact, alignment and coherence with any item related to WP.4 activities either developed or taken over in the context of this contract or maintained by other related actor. Examples of these items are the Multiannual Strategic Plan (MASP), TAXUD IT Strategy, EU Customs Policy, and Commission Enterprise Architecture Framework (CEAF), TATAF or TEMPO methodology. Architecture and Strategy support shall be assured as a continuous service under which the proper coherence and evolution of the architecture layers is ensured, measured and reported.
WP.4.1	Support on IT Strategy definition and implementation
	The contractor will provide support for the definition of an IT Strategy for EU Customs and advice for its implementation. This includes identifying IT Strategy alternatives in line with the organisational and business strategy and objectives and assess their impact for Commission, Member States and Trade on key aspects as for example: • Costs and effort • Time to market • Projects Portfolio and IT Master Plans • Technical implementations • IT and Business capacity • Business processes and operations • Development and support methods • Organisation structure and responsibilities • Related legal, commercial or procurement matters The above and any other aspect impacted either positively or negatively by the IT Strategy alternatives must be assessed and measured using traceable and contrastable methods and indicators with values solidly based on available information or on rational assumptions. These assessments will probably require high qualified expertise not only on IT matters but also on legal, commercial, business, financial or other matters directly or indirectly related to the Customs business and the related Information Technology domain. The above will be provided in the form of specific studies and will include frequent bilateral or multilateral consultations to Member States either in Brussels or in MS territory. It will also require workshops, seminars where the contractor will explain the results to the MS and or TAXUD.
WP.4.2	IT Portfolio and Master Plan definition and maintenance
	The contractor will produce and/or maintain an IT Master Plan as an independent document or as part of the Multi Annual Strategic Plan (MASP). The IT Portfolio consists on a document or a series of documents and architectural descriptions listing and describing the IT portfolios, projects and activities to be realised by the EU Customs stakeholders (EU institutions, MS administrations and economic Operators) in the upcoming 5 to 10 years. The IT Master Plan consist on a high level work plan laying out in time the portfolios projects and activities to be realised by the EU Customs stakeholders (EU institutions, MS administrations and economic Operators) in the upcoming 5 to 10 years. The IT Portfolio and Master Plan lay down the IT Strategy according to the business objectives and taking into consideration any constraints or factors temporal or structural, internal or external that may impact the execution of such plan for any of the stakeholders.

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	The contractor will be responsible for the evolutive maintenance of the IT Portfolio & Master Plan with one major and two minor revisions every year. A major revision includes: • The review of the whole IT Portfolio and Master Plan to assure its validity with the IT Strategy and with the Business objectives • The evaluation and report on the Master Plan realisation in the past year including its reassessment to better implement the IT Strategy or to minimise the risk of non-realisation of business objectives • The revision of assumptions, indicators and assessment methods in order to better reflect reality both of the portfolios structure and the time plan on whatever form they are laid out Corrective maintenance of the IT Portfolio or the IT Master Plan require quarterly minor revisions covering the adjustment of the time plan, additions or removal of projects or modifications on their descriptions according to change in business requirements.
WP.4.3	Architecture Framework Support: Vision, Methods and Evolution
	The contractor must develop and maintain the Architecture Framework and methods for the EU Customs in general and for DG TAXUD in particular. The Architecture Framework and methods are the model and methodology to build and maintain the architectural instruments that support the IT Strategy and the fulfilments of the Business Objectives. They must comply with or follow internationally recognised Architecture Frameworks and with Commission Enterprise Architecture Framework (CEAF). The Architecture Framework may cover at least the following aspects: • Architecture Vision and Strategy serving as a business case for the use of Architecture methods and instruments, explaining which ones, how and why to best use them in the context of EU Customs, how they must be governed and evolved and how their benefits must be measured using indicators. • Architecture Methods and Conventions providing the methodological base for the development and maintenance of architectural items and models. They explain the structure of the different architectures and the guidelines and conventions within each one. • Architecture development method: guiding the development, governance and evolution of each of the different architectures as a unique and coherent body.
WP.4.4	Enterprise Architecture development and maintenance
	A coherent Enterprise Architecture for EU Customs must be developed and/or maintained according to the agreed Architecture Framework. The Enterprise Architecture is between and above all existing architectures encircling and associating them, assuring their alignment and providing an overall context to place them within the Business and IT Strategies and goals of EU Customs. It hence consists on a series of models and documents describing the overall context and assuring or facilitating the alignment of the different architectural perspectives (business, data, service, technical architectures, national architectures etc.). Among these the key goal of the Enterprise Architecture is the Business to IT alignment in all possible aspects. The activity consists firstly on the development and maintenance of an enterprise architecture framework and the provision of studies or development of architecture elements (models and documents) within the above context. The Enterprise Architecture also targets the facilitation of interoperability via convergence and harmonisation among the EU Customs systems and provides the instruments not only to measure these aspects but also to improve them by enabling collaboration, sharing or standardisation. The Enterprise Architecture includes reference architecture that establishes the common understanding

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	necessary to fulfil those objectives. Enterprise Architecture is above all a communication activity using architectural perspectives and instruments as means to develop a common understanding of an organisation, assuring alignment and coordination of the different stakeholders and activities making the right decisions towards the common goals. The EU Customs as a very complex organisation requires a specially intensive and continuous effort on communication among the stakeholders in order to create and maintain a common language, in particular for those Member States that collaborate in view of the creation of common services and solutions. The contractor will be required to actively participate in workshops, seminars, bilateral and multilateral meetings with TAXUD services, visits to Member States Administrations and/or Trade representatives to promote the Enterprise Architecture as part of the EU Customs culture.
WP.4.5	Application and Service Architecture development and maintenance
	Development and maintenance of the Application and Service Architectures for TAXUD systems and for the EU Customs systems integration. The contractor will develop and maintain Application and Service Architectures in order to define the most appropriate solutions for maximising the efficiency of: • the deployment, maintenance and governance of IT applications and/or IT Services at EU level in general and at TAXUD in particular; • the integration, sharing and reusability of application functionalities, services and data among EU Customs applications and services and of these with external systems at EU level in general and at TAXUD in particular; • the design methods and solution patterns that increase development efficiency and reliability of EU Customs and TAXUD systems; For the above all possible architectural layers must be considered in their current status providing input for their improvement and their expected evolutions so as to influence them towards the most efficient solutions. The efficiency of the proposed solutions shall be measured considering technical, organisational, cost and other practical factors or constraints and make use of clear and explicit assumptions. Any architectural evolution shall be depicted in the form of a target architecture fixing the objective and transition architectures for the gradual implementation from the as is architecture and based on an impact assessment. The measurement of the evolution and positive or negative impact shall be done via the use of clear and concrete indicators. The architectural work could trigger the launch of specific projects for the implementation of tools or services required for the correct implementation of the target architecture (e.g. development of utility services, implementation of common data services, introduction of tools or repositories, etc.). These projects will be realised within the scope of the corresponding Work Packages and managed by the IT projects and support team. The architectural layers to be considered could be under the responsibility of other services as could be for example the operations infrastructure or the CCN2 platform in which case the contractor shall be able to work in coordination with them and find together the best solutions under the existing constraints. Other more ambitious endeavours, such as the creation of a private Customs cloud, are not excluded. The contractor, depending on the context, will either be requested to partially or completely develop one or several Application and Service Architecture layers in collaboration with a number of

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Member States experts.

The Application and Service architecture shall work in two distinct lanes:

- a global EU Customs Application and Service Architecture to be considered as a reference for the integration of EU Customs systems which will focus on systems integration, data sharing and reusability and serve as support collaboration initiatives among Member States.

- TAXUD Application and Service architecture aligned with the above but much more concrete for those applications and services developed under the responsibility of TAXUD.

The second aspect shall be the most important and concrete objective of the activity and will have as starting point the TATAF framework but shall evolve in consideration of TAXUD IT Strategy and business requirements and in adaptation to new technologies and methods (MDM, SOA) and evolution of the available platforms (SPEED2, CCN2), or the design of new ones, in a cloud delivery mode.

The contractor shall provide on request the necessary support to TAXUD and the Member States in the form of studies, market prospections, functional and/or technical analysis, consultancy, training, workshops, etc. that help manage the change towards a coherent Application and Service architecture for EU Customs systems in general and for DG TAXUD in particular.

WP.4.6	Application & Service Architecture management and support

To manage and support the different layers of implementation of the application and service architecture into the applications and services

The following layers have to be considered:

- The Development layer requires architectural management and support to elaborate a correct IT design for a given IT system/application or service;
- The implementation layer requires architectural management and support to guarantee a correct transition into production;
- The transition and operations layer requires potential support to resolve problems during the service transition activities and during the production lifecycle.

WP.4.6.1	Architecture development management and support

To provide application and service support to the development team(s) (list indicative and not exhaustive). Based on a solid knowledge of the TAXUD application architectures and frameworks:

- Provide Architecture guidance for the IT design activities;
- Provide insights and leading practices derived from the applicable application and service architecture and framework;
- Provide SOA expert advice taking into account the overall enterprise architecture of the customs systems and applications;
- Provide design patterns to enhance the quality of the solution; or to resolve problems related to the constraints inherent to application development at DG TAXUD (e.g. manage high data volumes).

WP.4.6.2	Architecture implementation management and support

To provide application and service support to prepare the transition and production of the IT system/application and services (list indicative and not exhaustive):

- Provide subject matter expertise with ad-hoc involvement of experts contributing with their experience on domains like Oracle, J2EE
- Provide technical expertise to mitigate on potential risks or even solve with identified technology issues e.g. SPEED2 MQ implementation

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	• Check about the overall consistency of all architecture tasks and deliverables and propose to DG TAXUD possible options and recommendations for implementation. • Simulate Member States integration on test environment to anticipate any potential showstoppers.
WP.4.6.3	Architecture transition and operational support
	To provide application and service support during the transition and production phases (list indicative and not exhaustive): • Acquire and consolidate the knowledge of the different transition and production environments; • Provide subject matter expertise with ad-hoc involvement of experts contributing with their experience on domains like Oracle, J2EE.
WP.4.6.4	Architecture Continuous Improvement
	To improve and guarantee the architecture excellence (list indicative and not exhaustive): • Conduct regularly control the quality of code produced through project independent code reviews; • Liaise with the development and support teams on architecture aspects; • Act as change manager for the framework and various artefacts of Application and service architecture.
WP.4.7	Support on ARIS and Architecture tools
	This work package covers the support on the use and customisation of tools used for architecture work. The support is to be provided in the form of: • Audits on the correct usage of the tool and on consistency of their content; • Web publication and/or merging of data bases within the tool (when automatically allowed by the tool); • Maintenance of the user guidelines and modelling conventions for the use within TAXUD; • Customisation or configuration of the tool for the use within TAXUD, including realisation of report scripts; • Advice on the use of alternative tools for specific modelling or architecture uses. DG TAXUD makes extensive use of the ARIS tool for Business Process Management and architecture purposes, however this WP relates specifically but not exclusively to the ARIS tool.
WP.5	**Business Analysis and Modelling**
	This work package covers the activities undertaken to produce and maintain the Business Process Models and Business specifications for Customs European Information Systems as described in the MASP. A Customs EIS requires the existence of business documentation which will guarantee that business requirements are achieved and that the different systems interact in the correct way and will act as one Customs system. The work package covers in general terms: • the production and maintenance of Business Process Models, • the production and maintenance of business system requirements, • the production and maintenance of business (functional) system specifications, • the production of Feasibility Studies and planning documents. Training/workshops required in support of production of BPM and specifications will be accounted

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	under WP.8.
	The production and maintenance of BPM and specifications will be supported by a specific software selected by the Commission and a dedicated specification infrastructure (e.g. BPM suite).
	The specifications must be placed under strict Configuration Management in order to support their iterative, incremental production and their further maintenance.
	Maintenance can be of the following nature:
	• Evolutive maintenance will always be triggered on request by the Commission,
	• Corrective maintenance is triggered by incidents resulting in error recording and subsequent correction. The incident can be initiated by the users via the service desk (managed by the IT Service Management contract). The contractor is encouraged within this task to apply preventive maintenance in order to limit the possibility of further errors.
	All new BPM and specifications are produced and maintained in EN. Some of them might need to be translated into DE and FR.
	All meetings held by the CUST-DEV3 contractor with the Commission for the purpose of delivering WP.5 deliverables are considered as part of the delivery work. However, travel and subsistence costs will be reimbursed by the Commission according to the rules of the framework contract.
WP.5.1	Feasibility Study
	This work package covers the production of a feasibility study. A feasibility study aims at giving enough information to decision makers to enable them to decide on the activation of subsequent project phases for a given Customs EIS. The feasibility study document can cover various items following the request of the Commission. Some examples of these are: a problem statement, high-level requirements, business cases, business solutions, impact assessment, etc. The document will always contain a costing plan and a time schedule. Work can include as well the maintenance or update of earlier produced feasibility studies
WP.5.2	Business Analysis
	This work package covers the analysis and support to the production of Business Customs Documentation and Business Cases in compliance with the Customs European Information System. It is necessary that this work is performed by an expert in Customs Legislation and Procedures.
WP.5.3	Production and maintenance of Business & System Process Modelling (Levels 1, 2 and 3)
	This work package covers the production and the maintenance of a Business Process Model (BPM) for a system in compliance with norms and standards indicated by the Commission and will serve the purpose of creating or maintaining Customs European Information Systems. The BPM depicts and describes the business processes and flows of information for a given business domain. The Business Process Modelling Notation (BPMN) is used as the graphical syntax notation. Although the production of requirements is specified in another work package, it can be the case that the two disciplines are applied within the same phase and the results combined within the same deliverable. This is especially the case for system requirements. The model can be complemented with an animation implementation in order to clarify the timing and condition elements of the model. This animation will be driven by scenarios and can be used for validation and training purposes.
WP.5.4	Production and maintenance of Business Requirements
	This work package covers the production, maintenance and support of requirements. Requirement specifications determine in detail the expectations in terms of • The user or stakeholder • Functional requirements Non-functional requirements are requirements such as operational requirements (capacity, monitoring, availability, statistics, etc.), technical requirements (architecture, performance, etc.), testing requirements, training requirements, security requirements, etc.
WP.5.5	Production and maintenance of Detailed Level 4 BPM (Business or Functional Specifications)

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	This work package covers the production and the maintenance of Level 4 Business Process Models. These models describe in detail the processes, the rules, the conditions, the data elements etc. The specifications must take into account the functional and non-functional requirements.
	Based on the BPM Levelling Guidelines, the Detailed BPM Methodology and the overall Methodology Document, 'Level 3' User Requirement BPM will be developed into 'Level 4' Detailed BPM. These Level 4 Detailed BPM are developed from a system point of view, where it will be necessary to fully analyse the business process to identify the parts which will be automated and which are manual.
	It is expected that Level 3 User Requirement BPM may be changed based on small business updates and evolutions. In addition, there will be changes to add grouping around tasks in order to link from Level 3 to Level 4 models.
	Regular working sessions will be held with the stakeholders in order to decide on how to model the detailed BPMs in the best way. Additionally any decisions regarding documentation on what will be covered by a system versus what is manual will be agreed upon during the execution of this task.
WP.5.6	Business Test Criteria and Acceptance Test
	This activity includes: • Business Test Criteria will indicate how the system requirements and business specifications will be taken into account for acceptance testing of a Customs EIS • Business Acceptance Test will describe the Business acceptance criteria in a way that they can be directly used for the creation of acceptance test scenario's for the Customs EIS. • For this purpose a specific tool could be used that facilitates the production of the criteria and tests with a view of developing acceptance test scenario's and facilitating the evaluation of test results against the acceptance criteria • This tool could be used to capture the business acceptance criteria in relation to the BPM and requirements; • The relation between Business Acceptance Criteria and models in ARIS report is still to be defined
WP.5.7	System Scope Management
	It is common practice that large and complex systems are introduced in phases. The scope management will facilitate keeping track of the partial implementation of the functionality of the Customs EIS in clearly defined phases. The Scope management will enable to identify which part of the business process and system documentation is related to each of the defined phases. It cannot be excluded that a specific tool could be used for this purpose. This work package will cover the setting up of scope management ant its maintenance for given systems introduced in phases.
WP.6	**IT analysis and design**
	This Work Package covers all activities to produce and maintain all relevant IT specification artefacts for the customs IT systems and applications. DG TAXUD develops its IT systems and applications according to the TEMPO methodology. As any other methodology this is subject to legacy and evolution. The contractor will have to manage systems and applications developed at a given point in time which applied a different terminology than the ones which have been developed more recently. Furthermore, DG TAXUD has started a transformation towards SOA development practices. The latter is at the time of writing of this Invitation To Tender not yet part of TEMPO. WP.6 and WP.7 apply to all new developments and functional/technical evolutions. All required corrective activities required to come to a successful roll-out into conformance/production are an integral part of the ordered IT analysis and design activities and no subject to additional cost. All detected IT specification defects must be registered and traced in the agreed toolset which is used for the business and operations support (refer to WP.8.1).

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	Possible Requests for Change which are applicable to the ordered IT analysis and design activities have as well to be registered and traced in the agreed toolset which is used for the business and operations support (refer to WP.8.1). All items produced under this Work Package must be placed under strict Configuration Management (refer to WP.8.2) in order to support their iterative, incremental production and their future maintenance. To this purpose the contractor must ensure that the CMDB, DML, Infrastructure baseline and document repositories used in the context of the framework contract are continuously kept up to date. Corrective maintenance for IT specifications applicable to IT systems and applications which are in conformance/production is triggered by incidents resulting in defect recording and subsequent correction. This type of maintenance is performed by activities under WP.8.1.4.1. Wherever beneficial, DG TAXUD wants to move away from document based IT specifications towards tool based specifications. Refer to section 6 for tool requirements. All specifications are produced and maintained in EN.
WP.6.1	Feasibility Studies or any activity linked to IT inception work
	To produce feasibility studies and IT inception artefacts which cover various requests by the Commission such as vision documents, proof of concepts, technical business cases, impact assessments, technical solutions, prototypes, etc. This work package covers the production of feasibility studies or any deliverable linked to IT inception work. This results in the provision of strategic advice for the technology direction and more long term vision. The feasibility study document can cover various items following the request of the Commission. Some examples of these are (list indicative and not exhaustive): • a problem statement, high-level requirements, • impact assessment covering impact analysis on other related systems/components, • description of technical solutions, • prototypes, • Assess the advantages and disadvantages of each option so they can be ranked, • cost and cost/benefit analysis, • resources and planning aspects. A Feasibility Study aims at giving enough information to decision makers to enable them to decide on the activation of subsequent development phases for a given system or application.
WP.6.2	IT Requirements
	This work package covers all activities associated with the definition and assessment of requirements that are further used to determine IT analysis and design. Requirements can be registered in different ways and for different parts of a given system/applications (non-exhaustive): • If existing, the business process models define the functions to be implemented with the required external interfaces; • User interface components require specific requirement determination. This can be done by applying techniques such as use case analysis or other; • Non-functional Requirements are more IT operational requirements (performance, operations, capacity, monitoring, availability, statistics, etc.), testing requirements, training requirements, security requirements, etc.
WP.6.3	IT System/Application system modelling

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	To conceptualise and construct IT solutions. This work package covers the production and maintenance of **architectural solutions** for the customs IT systems/applications. The architectural solutions of a given system or application map onto portfolio conceptual architectures and frameworks. In fact, they describe an implementation of the architecture defined at portfolio level. The specification of the architectural solutions must enable the relevant stakeholders (e.g. DG TAXUD architects, ITSM2 architects, CUST-DEV3 development team(s), etc.) to understand how a given IT system/application will work from a technical viewpoint. The solutions could be presented in different types of architecture models: structural view, logical view, physical view, conceptual/development view, process view, execution view, etc. These IT system/application models must also include the interfaces with the other systems (internal as well as external) and must be compliant with DG TAXUD's enterprise architecture.
WP.6.4	IT Analysis
	*This Work Package covers all activities to produce or maintain all required artefacts which specify all elements in terms of **what** needs to be implemented for a given IT system/application.* The produced artefacts are mainly of a functional/processing, input, output and user interface nature. Some of these artefacts are used as a basis for the further development of a central application, some other as destined for external stakeholders, such as Member States or Partner Countries, and to be used as a basis for local implementations. The analysis activities must take into account the functional and non-functional requirements.
WP.6.5	IT Design
	*This Work Package covers all activities related to the technical design of a system or application and produces or maintains all required artefacts which specify **how** the required processes, functionality and data will be implemented; This must be aligned with the IT system/application system model and the IT non-functional requirements.* Design specifications define how the functional specifications and the IT non-functional requirements will be implemented and consist in general terms of technical artefacts defining (indicative list) the message exchange protocols, process implementation specifications, database schemes, etc. This is the basis for the required development activities covered under WP.7. If a system/application foresees the implementation of a system-to-system interface by one or more Member States or by other external stakeholders the artefact(s) to produce and to maintain for that purpose are of crucial importance as they are the blueprint for the technical interoperability. Non-functional requirements such as performance, operations, availability, capacity, continuity, security, etc. must be part of the design considerations.
WP.6.6	IT Testing
	This Work Package covers testing activities which are to be performed in parallel with the IT analysis and design activities. It consists mainly in the production or maintenance of the Master Test Plan and the production or the maintenance of the required test scenario's.
WP.6.6.1	Master Test Plan (MTP)
	The Master Test Plan spans all test activities for a given IT system/application. It is the first artefact of a given testing lifecycle.
WP.6.6.2	Test Design Specifications (TDS) – Test Scenario's
	During the testing lifecycle various test artefacts are produced at different points in time. All these artefacts are grouped under the terminology 'Test Design Specifications'. This Work Package covers the production and the maintenance of the test scenarios. Test scenarios are grouped according to their scope (e.g. functional, performance, etc.) and get their own acronym under the TDS umbrella. They are not considered as executable test cases but express what scenarios have to be performed in a positive or negative way to test a given function or requirement (can be non-functional). Examples of these are business user scenarios, functional test

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	scenario's, conformance test scenario's, performance test scenario's, etc. The test scenarios will/can be later transformed into test cases (refer to WP.7).
	The scenarios must be tagged and associated with the relevant requirement/function in order to allow cross-reference checking and impact analysis in case of changes.
WP.6.7	IT Implementation and Migration
	This Work Package covers the required activities to produce or maintain specifications required to support the IT implementation of a given IT system/application and possible migration activities.
	The following are some examples (non-exhaustive) of such specifications.
	Scope Document
	The Scope Document defines the functional and technical framework of the concerned system or application or phase of this system or application: it defines which functions and messages are either mandatory or optional to implement, for all involved parties, along with any restriction. Moreover, it details the request to the Commission to develop the common components/services.
	Migration Strategy Document
	The Migration Strategy document defines the strategy, approach and related migration scenarios and the planning linked to the required migration from one system situation to a future one. It covers all involved components and/or data for all involved parties, along with any restriction.
	One of the primary goals to consider during a migration is to minimize the impact on the involved stakeholders.
	Deployment Plan
	The purpose of a Deployment Plan is to specify and plan the deployment of a given IT system/application or a specific phase of it.
	It specifies into the required level of detail all activities to be performed by a given role within a given roadmap/planning. It covers internal DG TAXUD milestones, milestones assigned to contractors and possibly international milestones[4] that need to be met.
WP.7	**IT Build, integrate and Test**
	This Work Package covers all activities to produce and to maintain all relevant software, Test Design Specifications and supporting artefacts. Furthermore, it covers all relevant integration and testing activities.
	The contractor will provide deliverables and services to build the customs applications/services in compliance with the TEMPO methodology. Furthermore it will have to provide artefacts and services to support the testing lifecycle of the customs systems and applications.
	The Work Package covers in general terms:
	• the development and testing of programmes or software components,
	• the production of supporting artefacts (e.g. installation manuals, administration manuals, etc),
	• the activities covering the testing lifecycle (e.g. production of Test Design Specifications, execute the tests).
	The acceptance of the software consists of a formal FAT process and subsequent service transition activities as described in TEMPO and the FQP.
	It is considered of major importance that the software is made available for end-user testing/demo as soon as possible in the development lifecycle, ideally before integration-testing or in parallel with these activities.
	WP.6 and WP.7 apply to all new developments and functional/technical evolutions.
	All required corrective activities to come to a successful roll-out into conformance/production are

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[4] The dates agreed in common with MS or CC concerning the start of operations of a specific system phase

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	an integral part of the ordered IT build, integrate and test activities and no subject to additional cost. All detected IT build, integrate and test defects must be registered and traced in the agreed toolset which is used for the business and operations support (refer to WP.8.1). This registration must at least start from the moment integration tests are started by the CUST-DEV3 contractor for a given release.
	Possible Requests for Change which are applicable to the ordered IT build, integrate and test activities have as well to be registered and traced in the agreed toolset which is used for the business and operations support (refer to WP.8.1).
	All items produced under this Work Package must be placed under strict Configuration Management (refer to WP.8.2) in order to support their iterative, incremental production and their future maintenance. To this purpose the contractor must ensure that the CMDB, DML, Infrastructure baseline and document repositories used in the context of the framework contract are continuously kept up to date.
	Corrective maintenance for IT build, integrate and test software and related artefacts applicable to IT systems and applications which are in conformance/production is triggered by incidents resulting in defect recording and subsequent correction. This type of maintenance is performed by activities under WP.8.1.4.2.
	Wherever beneficial, DG TAXUD wants to move away from document based specifications (including and especially Test Design Specifications) towards tool based specifications. Refer to section 6 for tool requirements.
	The document deliverables and software parts which have linguistic dependencies are produced and maintained in EN. The contractor may be asked to translate some of them into DE and FR.
	All activities under WP.7 are subject to be covered by the IFP price element.
WP.7.1	IT Detailed Design
	This Work Package is not of a mandatory nature and can be applied when the contractor deems this necessary according to his internal working and development methods. Nevertheless, this must not substitute the TEMPO methodology but be complementary by nature.
	In general, these activities can be applied to provide more explicit information to the programmers.
	There will be no specific budget allocated to these activities as they must be part of the activities covered by the IFP price element.
	Although DG TAXUD is not allocating specific budget for these activities the contractor must deliver the related artefacts, if produced by the contractor, to DG TAXUD although there will not be an official acceptance process linked to this.
WP.7.2	Develop and Document Programs or Software Components
	This Work Package covers the programming of the different programming units, its documentation and its integration into more coarse-grained programming units if required.
WP.7.3	Produce Supporting Manuals
	This Work Package consists in producing material facilitating the use of the software from the viewpoint of (without being exhaustive)
	• the user: user guides and on-line help text facilities,
	• the developer,
	• Operations: administrator and operator guidelines, installation manual.
WP.7.4	Test Design Specifications (TDS) – Test cases
	The test scenario's produced under WP.6.6.2 must be implemented by means of test cases which can be executed automatically or manually. This Work Package covers the production and the maintenance of these test cases.
	Test cases are grouped according to their scope (e.g. user interface, performance, etc.) and get their own acronym under the TDS umbrella.

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	The test cases must be tagged and associated to the relevant test scenario in order to allow cross-reference checking and impact analysis in case of changes.
WP.7.4.1	Produce the Test Design Specifications (TDS) – Test cases for FAT
	Depending on the system and application the contents of this part of the TDS can vary.
	This part of the TDS must provide all the test cases to enable the test team to test the functional and non-functional aspects of the application.
	Furthermore, It must include test cases which are demonstrating that the system/applications is functioning 'end-to-end'. The latter means that all external interfaces must be part of the end-to-end testing together with a correct simulation of the connectivity which will be used in the production environment (e.g. getting or sending a message over CCN to/from a given Member State, test the user interface over a CCN connection, etc.).
	All tests performed during FAT can be repeated as part of the service transition activities towards a deployment in the conformance and production environments. Consequently, all TDS artefacts must be designed such that they can be executed in the service transition environments of DG TAXUD..
	Test tools which can automate the execution part of the TDS are part of the DG TAXUD testing strategy.
WP.7.4.2	Produce the Test Design Specifications (TDS) – test cases for Conformance Testing
	Depending on the system and application the contents of this part of the TDS can vary.
	This part of the TDS must provide all the test cases to enable the Commission and the external stakeholders (mainly the Member States) to test the compliance of the agreed interfaces in all aspects (functional and non-functional).
	A specific test application can be used which can automate (part of) the execution part of the TDS.
WP.7.4.3	Produce the Acceptance Test Plan (ATP) for the Factory Acceptance Testing (FAT)
	To produce the procedural manual to be used for testing (organisational aspects of the testing, test scenario description, etc.).
	The Acceptance Test Plan is the procedural manual to be used for testing; it details the specific approach and scope per test phase. It focuses on the practical steps to be taken by all parties involved. It describes the organisational aspects of the testing and includes a description of the test scenarios to be executed during the FAT.
WP.7.4.4	Produce the Acceptance Test Plan (ATP) for the Qualification Testing (QT)
	To produce the procedural manual to be used for testing (organisational aspects of the testing, test scenario description, etc.).
	The Acceptance Test Plan is the procedural manual to be used for testing; it details the specific approach and scope per test phase. It focuses on the practical steps to be taken by all parties involved. It describes the organisational aspects of the testing and includes a description of the test scenarios to be executed during the Qualification.

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WP.7.5	Execute Test Plans
	To execute the test cases as defined in the relevant part of the TDS. When possible, testing must be automated as much as possible by test tools. Log files generated by these test tools can then be included as annexes to the test reports. This work package covers also the production and maintenance of all test data and test scripts and the analysis of the test results. All exceptions and errors detected during the execution of the tests are to be registered in the agreed toolset. This toolset will be the same as for the management of incidents, problems, changes and releases (refer to WP.8 and section 6 infrastructure and tool requirements). The detected errors and issues are to be assessed by the development team followed by the plan of a new internal release if required. The outcome of the test must be reported in the test reports applicable to the test phase concerned. The contractor is reminded that all tests will be re-executed until they meet the Key Performance Indicator ("KPI") defined to move to the next stage with all test results recorded. During the tests performance tuning enhancements (e.g. parameterization and configuration aspects) will be implemented to optimise the performance before starting the service transition activities.
WP.7.5.1	Unit Testing
	This work package covers unit testing of the programmes or software components. The contractor must keep a record of the unit testing. These records must be available on-site and provided to the Commission within 3 working days upon request.
WP.7.5.2	Integration Testing
	To give confidence that all components work together as designed. Integration testing is the final step before FAT testing and should give confidence that all application components work together as designed. The contractor must keep a record of the integration testing. These records must be available on-site and provided to the Commission within 3 working days upon request.
WP.7.5.3	Factory Acceptance Testing (FAT)
	To ensure the quality of the deliverables. This work package covers the activities to: • execute the required tests, • collect and process the test results, • produce the FAT report. The contractor has to assure independence between the FAT team and the development team. The Commission and/or a party nominated by the Commission will validate on-site the FAT execution. The contractor must consider the correct result of the FAT as a pre-requisite for the delivery of the software to the Commission. If applicable, performance and stress tests must be executed also during the FAT and the outcome of the tests must be included in the FAT report. The Commission could also request to perform the performance and stress tests on a different/specific environment. It is the responsibility of the contractor to have all environments in place and fit for purpose of the applicable tests to be executed. Refer to ICT infrastructure management under WP.8 for the relevant services.
WP.7.5.4	Qualification Testing (QT)
	To ensure quality before delivering a patch or a service-pack to the Commission. Qualification Testing is applied before delivering a patch or a service pack to the Commission. This

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	work package covers the activities to • execute the required tests, • collect and process the test results, • produce the Delivery Qualification Report (DQR).
WP.8	**Support Services**
	The Work Package covers all required support services. They can be put into the following main categories: • all required services mainly linked to business/operations support and which are of a continuous nature, • all required services which are of a horizontal and continuous nature such as infrastructure and tools management, configuration and release management, • specific support services which can be triggered by DG TAXUD when required, • services linked to the business perspective such as trainings, demonstrations, participation to committee meetings, etc. The totality of the services is oriented towards all the parties involved in the programme (among which NAs and MSs, trader federations, economic operators, the contractors and the Commission services).
WP.8.1	Business/operations support
	This work package covers the services to be provided to the business users and operations. This consists of: • Acting as 3rd level support for the IT systems/applications in conformance and production (incidents and problems); • Change management for the IT systems/applications in conformance and production; • Repair defects identified for the IT systems/applications in conformance and production. A Service Desk service is not to be delivered by the CUST-DEV3 contractor. Refer to section 7 for more details on the ITSM2 Lot1 Service Desk.
WP.8.1.1	Incident Management
	This work package consists of all required activities to support and use an effective incident management. The incident management process is triggered by the ITSM2 lot1 Service Desk and will handle the lifecycle of incidents and more specifically the following categories: specifications and software incidents, requests for information (RfI) and requests for service (RfS). The activities to be undertaken by the CUST-DEV3 contractor will mainly cover 3rd level support. All incidents/requests linked to the business users/operations will be managed through the Synergia SMT tool. The CUST-DEV3 contractor will have access to this toolset to manage the incidents assigned to him. User assignment, reporting and SQI calculation for incidents handled by the CUST-DEV contractor will be configured and provided by ITSM2 Lot1. The contractor must set up and/or maintain the incident management process • to facilitate discussions at team and overall CUST-DEV3 level if required regarding the incident tracking, the root cause analysis and incident resolution • to create coherency with the configuration and release management processes in case of specifications or software incidents. This must allow the contractor, the Commission and other involved parties to create the link 'incident' - 'problem' – 'configuration item' – 'change' – 'release in which the incident has been resolved'. The contractor will deliver to the Commission on a daily/weekly/monthly basis reports on incidents management based on the input he has provided in the Synergia tools (refer to section 7 for more details on the Synergia programme). Additionally, the Commission may request the contractor to produce additional ad-hoc reports on specific systems and for a specific period. The contractor must

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	provide these reports on-line via the agreed toolset and in electronic format.
	The provided service quality must comply with the contractual OLA (refer to section 5.3.1 for more details on the OLA requirements).
WP.8.1.1.1	Specifications and Software Incidents
	To handle specifications and software incidents.
	Incidents which are related to specifications and/or software require root cause analysis. Dependent on the criticality/priority and the business impact of the incident a workaround can/must be provided.
	A blocking software incident for which the root cause defect has been identified requires the delivery of an emergency fix (alias hotfix). Defects will be escalated into corrective changes handled via WP.8.1.4.
WP.8.1.1.2	Requests for Information
	To handle/answer the Requests for Information (RfI).
	This work package covers support activities to handle/ answer the Requests for Information (RfI) in the scope of this framework contract. The request is dispatched to the accurate activity owner and an answer is provided annexing an Information Request Form. The Requests for Information can contain the following type of requests (list indicative and not exhaustive): general information requests, 'how to' requests, requests on a given status of a given object, request to clarify a system/application function, request to clarify a technical mechanism, request to provide an opinion on a given situation, etc.
WP.8.1.1.3	Requests for Service
	To handle/answer the Requests for Service (RfS).
	This work package covers the handling of the Requests for Service (RfS) in the scope of this framework contract. The request is dispatched to the accurate activity owner.
	A Request for Service can refer to any service which is part of the CUST-DEV3 service catalogue. Please note that this is mainly an administrative activity and does not link to the real execution of the requested service.
WP.8.1.2	Problem Management
	This work package consists of all required activities to support and use an effective problem management.
	A problem can be assigned to the CUST-DEV3 contractor as the result of
	• an incident for which the root cause has not been determined or
	• any other activity such as preventive maintenance.
	It is to be understood that the number of problems are not that many in number but most of the time critical for the correct functioning of a given IT system or application in production or conformance. Problems such as performance issues, wrong results of complex functions, errors in data extraction to Member State systems, etc. can be given as possible examples.
	Problem management performed by the CUST-DEV3 contractor can result in the creation of one or more defects once the root cause(s) are known. Upon request by DG TAXUD, defects will be escalated into corrective changes handled via WP.8.1.4.
	The contractor must set up and/or maintain the problem management process
	• to facilitate discussions at team and overall CUST-DEV3 level if required regarding the problem tracking, the root cause analysis and problem resolution
	• to create coherency with the configuration and release management processes. This must allow the contractor, the Commission and other involved parties to create the link 'incident' - 'problem' – 'configuration item' – 'change' – 'release in which the problem has been resolved'.
	The problem management process is triggered by the ITSM2 lot1 Service Desk and will handle the lifecycle of problems.

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	The activities to be undertaken by the CUST-DEV3 contractor will mainly cover 3rd level support.
	All problems linked to the business users/operations will be managed through the Synergia SMT tool. The CUST-DEV3 contractor will have access to this toolset to manage the problems assigned to him. User assignment, reporting and SQI calculation for problems handled by the CUST-DEV3 contractor will be configured and provided by ITSM2 Lot1.
	The contractor will deliver to the Commission on a daily/weekly/monthly basis reports on problems management. Additionally, the Commission may request the contractor to produce additional ad-hoc reports on specific systems and for a specific period. The contractor must provide these reports on-line via the agreed toolset and in electronic format.
	The provided service quality must comply with the contractual OLA (refer to section 5.3.1 for more details on the OLA requirements).
WP.8.1.3	Change Management
	This work package consists of activities to support a change management process and participate in Change Advisory Board (CAB) meetings.
	The IT systems and applications are subject to corrective, functional and/or technical changes. This Work Package consists of activities to support a change management process.
WP.8.1.3.1	Change Management Process
	This work package consists of all required activities to support and use an effective change management.
	The contractor must use the change management process with the following objectives:
	• to manage efficiently, promptly and in a structured way the changes by registering the request, drafting the impact using the TEMPO Impact Analysis Report template, and participating to its review cycle.
	• to define the formal and documented change management procedures and the related approval levels necessary to manage, document and authorize changes according to best practices. It is highly recommended to maintain synchronisation with Synergia.
	• to perform the impact assessment and cost estimates (which are not binding to the contractor) linked to changes of CI's managed under this framework contract. This activity must cover all aspects e.g. documentation, specification, software components, hardware, COTS, etc.
	• to record the change (proposed or implemented) and maintain coherency with the configuration and release management processes. This must allow the contractor, the Commission and other involved parties to create the link 'change request' – 'configuration item' – 'release in which the change request is implemented'.
	• to be able to produce for each and every configuration item the list of recorded change requests with their status and related (expected) release.
	All Requests For Change related information (incl. impact assessments and reports) must be accessible via the agreed toolset to all stakeholders involved.
	The provided service quality must comply with the contractual OLA (refer to section 5.3.1 for more details on the OLA requirements).
WP.8.1.3.2	Change Advisory Board (CAB) Meetings
	The contractor will be asked to participate to CAB meetings. In the context of its participation, the contractor has to produce/document the Requests for Changes (RfC) subject to discussion in the CAB, provide its position with regard to change/impact, and record the CAB decisions on the concerned RfCs.
	The CAB meetings can be organised at the following levels:
	• DG TAXUD business unit/system owner level. This level is always applicable and can be the only required level. The latter applies if there is no agreement required from other stakeholders. To prepare this CAB, the CUST-DEV3 contractor could be invited to participate to meetings in order to clarify some impact analysis;
	• National Administration level. Dependent on the governance in place, the relevant

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	committee is to be considered as the CAB for the Requests for Change having an impact on the National Administrations.
	In general terms, the participants of these meetings are the different stakeholders for one or a group of configurations items.
	These meetings can be organised on an ad-hoc basis or on a more regular, periodic basis.
WP.8.1.4	Repair defects
	This WP covers the workload to repair IT system or application failures or anything that might cause the application not to function as designed. The contractor is responsible to perform all relevant IT activities associated with this repair.
	Corrective maintenance is triggered by incidents resulting in problem recording and subsequent change request(s). The incident can be initiated by
	• the service desk (managed by the IT Service Management contract) or the Central Project Team;
	• any kind of testing activity performed by the CUST-DEV3 contractor leading to the detection of a defect for an application in production.
	.The Quality of Service to be maintained will be specified in the contractual OLA (refer to section 5.3.1 for more details on the OLA requirements).
	The urgency of repair(s) is determined according to the contractual OLA (refer to section 5.3.1 for more details on the OLA requirements). All defects which are not to be repaired urgently by delivering emergency fixes will be corrected and delivered according to an agreed planning with DG TAXUD.
WP.8.1.4.1	Repair defects of the IT Specifications
	The corrective maintenance covers the correction and resolution of the recorded errors of all specifications.
WP.8.1.4.2	Repair defects of the Build and Test Software and Documents
	This Work Package covers the corrective maintenance activities of the build and test software and documents.
WP.8.2	Configuration Management
	To set up a configuration management process that maintains and plans evolutions of the configuration baseline.
	The contractor must set up and/or maintain a configuration management process for all required artefacts with the following objectives:
	• to maintain a Configuration Management System (Baseline and CMDB) in order to provide accurate information on assets such as configuration items, components, and their documentation to control their evolution, protect their integrity, perform and/or assist audits and therefore minimize issues caused by improper configuration.
	In other words, it means supporting all Service Management processes,
	• to create coherency with the incident, problem, change and release processes
	• to update the CMDB and the Definitive Media Library (DML) according to the change of the configuration items (CIs)
	• to be able to look-up the CMDB for a specific CI; audit changes and provide inventory lists and reports on the status of CIs and the status of planned changes.
	The contractor must setup a **Definitive Media Library (DML)** containing all definitive and authorised versions of all software components and related specifications/documentation created under this Framework Contract is securely stored. Access to this information to the stakeholders involved must be managed via the agreed toolset. The content is to be provided by the contractor and approved by DG TAXUD before dissemination. Please refer to section 6 for more information on infrastructure and tools.

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	⚠️ If applicable, all acquired infrastructure and tools must also be maintained in the CMDB under this work package. This also covers the maintenance contracts and the scheduled procurements.
WP.8.3	Release Management and software service transition
	To apply the release management process. The contractor must apply the release management process with the following objectives: • to ensure that every requested change is managed during the release and deployment activities. That means that the deployment packages and their components are tracked and followed to from request to installation. • to create a coherency with the incident, problem, configuration and change management process. • to deliver high-quality software releases which are updated in the CMDB and stored in the Definitive Media Library which is available via the agreed toolset, maintaining therefore the integrity of release package according the Configuration Management System. • to maintain clear and comprehensive deployment plans grouping changes in releases as much as possible to improve efficiency and stability of the environment. • to ensure compatibility of assets included in a given in releases packages. • to Record and manage risks, deviations, issues on new/changed services and take action • to ensure Knowledge transfer is properly performed on delivery by the development and testing teams to the ITSM2 contractors. The term 'release' in this work package covers release terminology such as 'release', 'full release', 'patch', 'hotfix'.
WP.8.3.1	Delivery of software
	To assemble and package a software release. This work package covers the activities to be undertaken to • assemble a software release in order to be able to deploy and test it (e.g. testing or in production environment), and • package the software release along with its related documentation necessary for delivery, deployments and test. Each release must also contain its related **release note** describing all problems fixed, changes and enhancements, known defects covered in this new release or pointing to the relevant parts of the service management tools where the relevant information is stored and accessible by the operational staff. DG TAXUD is striving towards a maximum level of automation in the domain of software service transition from development into production. Section 7 on the Synergia programme is providing more information on the subject. To this purpose the contractor must ensure that the CMDB, DML, Infrastructure baseline and document repositories used in the context of the framework contract are continuously kept up to date.
WP.8.3.2	Support to service transition services
	To guarantee a quick and successful transition. This work package covers all support activities to be provided by the CUST-DEV3 contractor to the ITSM2 contractors during all activities performed by the latter during the service transition period. All encountered issues must be registered, if not yet done by the ITSM2 contractors, using the agreed toolset to manage the IT system/application support services. The support activities can vary from performing the installation in a Pre-Site Acceptance Test environment and providing the proof that the application is functioning correctly (this can be due to major issues detected by the ITSM2 contractor during the initial installation or due to a repetition of issues observed for subsequent

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	releases) to 'standard' (such as clarifications, provide additional information, provide advice, etc.) support activities.
	This transition process includes the deployment of the new release into the various test and conformance/production environments managed by the ITSM2 contractor. Especially the installation and tests in the phase of pre-Site Acceptance tests are to be fully supported by the CUST-DEV3 contractor so that the planned test and deployment activities do not suffer from delays and lack of quality of the delivered software and related procedures/documents.
	The CUST-DEV3 contractor must participate to any relevant meeting organised by the ITSM2 contractor(s) on the subject such as Change Advisory Board meetings to agree on new production parameters, etc. These CAB meetings are typically organised on a weekly basis.
WP.8.3.3	Knowledge transfer between the CUST-DEV3 and the ITSM2 contractors
	This work package covers all activities to be performed by the CUST-DEV3 contractor such that all the required knowledge has been transferred to the ITSM2 contractors such that the ITSM2 contractors can perform
	• the service transition into conformance/production without explicit support from the CUST-DEV3 contractor. This implies (list indicative and not exhaustive) a full knowledge of
	o required changes at infrastructure level;
	o the functional scope of the release and/or the defects that have been repaired;
	o The installation procedure(s) of the various application software and testing components;
	• their activities effectively, especially these at 1st and 2nd level support.
	The above is having its largest scope when a complete new system/application has to be deployed. The knowledge transfer activities must be a mix of face-to-face clarifications, shadowing the CUST-DEV3 activities by the ITSM2 contractors, using the artefacts build by the CUST-DEV3 contractor knowledge management process (WP.8.1.10), etc.
WP.8.4	ICT Infrastructure and Tools Management
	This work package concerns the activities related to the management, operation and maintenance of the ICT Infrastructure and tools to be used by the CUST-DEV3 contractor. It is expected that all required infrastructure will be procured by DG TAXUD and housed in the DG TAXUD data centre. Any development infrastructure installed at the contractor premises is under the responsibility of the supplier and part of his standard infrastructure. However, in exceptional circumstances, the CUST-DEV3 may be requested to make procurement on behalf of DG TAXUD, both for software and IT equipment that would be required for his services and that could be installed either at TAXUD or contractor premises. WP.8.4.3 has been foreseen for this purpose.
WP.8.4.1	Set up, Install, Operate and Maintain the IT Infrastructure and Tools at the DG TAXUD Data Centre
	Infrastructure and its housing will be provided in DG TAXUD's data centre (see chapter 6). The initial operating system and backup agent will be installed. The CUST-DEV3 contractor will be responsible for the installation and maintenance of all other COTS and all system management tasks including:
	• Maintaining and upgrading (when needed) the OS;
	• Installing and maintaining all COTS (Weblogic, Oracle, service management tools, etc.);
	• User and rights management;
	• Backup/restore follow up (the backup infrastructure being provided by DG TAXUD);
	• All non-hardware monitoring and alerting activities;
	• CCN communications configuration and maintenance;

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	• Capacity management (see 8.4.1.1); • Compliance with, and execution of, all necessary processes (ensuring alignment with DG TAXUD processes and TEMPO) to ensure the correct management of all software components in terms of security, capacity, continuity and the related management of events, incidents, problems, releases and deployments.
WP.8.4.1.1	ICT Infrastructure and Tools Capacity Management
	The infrastructure and tools configuration baseline is a resource that provides visibility concerning the infrastructure needed for the development and test environment, in a line of sight of minimum 24 months. This baseline needs to be produced and maintained in close relationship with the evolution of the various types of architecture in place (e.g. application architecture, service architecture, technological architecture). It will contain: • the requirements in terms of software, hardware and COTS needs, • a strategic plan, pointing at planned needs (and their evolution) for the project in terms of IT infrastructure, • the commercial planning of COTS releases, and their planned support or end of support, • phase-out of older version of COTS to be replaced by new ones, with as little disruptive effect on operation as possible, • the recommendations of the Directorate General for Informatics of the Commission regarding the COTS and their support, • the impact of the above on the existing IT systems/applications and associated planning of actions. This baseline will be maintained and kept up to date. The procedure of maintenance of the central applications infrastructure baseline is to be specified in the FQP.
WP.8.4.2	Set up, Install, Operate and Maintain the test environments at the DG TAXUD Data Centre
	The CUST-DEV3 contractor will be expected to set up the necessary environments in order to test the application releases. This work package covers the activities required for the creation and maintenance of each new environment. For example, this could include the following: • Assigning a database instance/schema including parameterisation/fine tuning; • Setting-up an application server; • Configuring connectivity parameters (CCN, queues, other connectors); • Configuring remote access for users; • Configuring any other needed components (e.g. service bus, BPMN engine); • Configuring any other services/parameters to ensure the correct operation of the environment (e.g. DNS, LDAP, proxy, load balancer, replication/high availability technologies such as Oracle RAC); • Decommissioning the environment and releasing all associated resources; The CUST-DEV3 contractor is expected to manage the creation of environments in such a way as to ensure flexibility and scalability, paying particular consideration to the available capacity and load of the infrastructure, i.e. it is assumed that the provision of a permanent environment per application is neither necessary nor optimal.
WP.8.4.3	Hardware and COTS acquisitions required to support CUST-DEV3 services
	The purpose of this work package is to bring the following benefits to DG TAXUD: • Simple contract administration and management, through a single source channel for purchases including licence acquisitions, maintenance and related services;

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	• An efficient way to acquire IT related items via a reseller's product list (catalogue); • An acquisition channel that permits the choice/purchase of "best-of-breed" IT related items in a highly dynamic IT market; • Comprehensive licence management services covering the complete software lifecycle (quotation, ordering and order tracking, delivery, licence inventory, licence compliance, reporting); • Comprehensive maintenance management services for both hardware and software. It covers the following supplies and services: • The supply (licence quotation, ordering and delivery) of computer hardware and software products with associated maintenance, consisting of periodic maintenance, corrective maintenance upgrades and updates to new versions and releases. This also includes the supply of associated maintenance for hardware/software artefacts already in the inventory. Finally, the supply also includes provision of complementary services, such as urgent delivery services; • If needed, the takeover of the on-going maintenance and support agreements for all hardware/software products under maintenance via the previous software acquisition channels, to ensure transparency and continuity of service; • If needed, in the context of the hand-over, to perform the transport of computer hardware and related software products to the Commission or any designated third party; • The integration of any existing specific volume licence agreements into the Framework Contract; • The provision of informatics services which should cover any required support for the acquired hardware or COTS, for example, liaising with the suppliers to resolve issues; • The maintenance of a comprehensive inventory of all hardware and COTS acquired via this channel. This should be in the form of an online service enabling secure access to catalogue(s) and licence pricing information (via an online product catalogue), order tracking information (via an order tracking tool), licence inventory information, and provision of regular consumption follow-up reports, as well as other types of reports, linked to Service Level Agreement (SLA) requirements; • It must be possible to trace any order back to its originating entity. It is up to DG TAXUD to decide which of these services will effectively be used in the course of the contract, and to which extent; • Hardware decommissioning should be entrusted to specialised companies proficient in the physical destruction of sensitive hardware (tapes, disks, flash memory, proms, etc.) and capable of delivering trustworthy certificates regarding work performed. Please refer to section 3.6.14.1 for a description of the price element 'Uplift on COTS, HW, Maintenance, Decommissioning' that applies to this service.
WP.8.5	Specific support services
	These services are to be delivered when triggered by DG TAXUD and will be expressed as resource quantities to be used. The contractor will produce a report for each and every support activity.
WP.8.5.1	Service Transition and operational support
	This work package covers support activities explicitly triggered by DG TAXUD. These activities are activated when (list indicative and not exhaustive) • the continuous services provided under WP.8.3 do not deliver the expected result in terms of a successful transition; • the continuous services provided under WP.8.1.1 and WP.8.1.2 do not deliver the expected result in terms of the correct resolution of an issue in the conformance or production environment. This can be the case when the root cause of the incident or

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	problem is not the responsibility of the CUST-DEV3 contractor but they are nevertheless requested to provide support for the solution; • explicit after care support is requested by DG TAXUD when important deployments took place in conformance and/or in production. The contractor will report on each and every support activity in the Monthly Progress Report (MPR). The support services can be performed on-site and/or off-site.
WP.8.5.2	Conformance Testing support
	This work package covers support activities for the conformance testing campaigns with National Administrations or any other stakeholder connecting to the EU customs systems or applications. These support activities are planned in advance, triggered by DG TAXUD and cover the following activities (list indicative and not exhaustive): • provide support to the ITSM2 contractors conducting the conformance test campaigns with the relevant stakeholder; • provide faster replies to incidents and problems compared to the service levels defined in the FQP and contractual OLA (refer to section 5.3.1 for more details on the OLA requirements). This can result in the delivery of emergency fixes or fast track releases for the software components participating in the conformance tests falling under the responsibility of DG TAXUD. The support offer will be expressed by the contractor as resource quantities to be used. The contractor will produce a report for each and every support activity. The support services can be performed on-site and/or off-site.
WP.8.5.3	Support to the National Administrations
	This work package covers support services for the activities of the National Administrations of the Member States. However, the provision of the support services can also be extended to the EU candidate countries, to the EFTA countries, to the EU neighbouring countries (ex. Ukraine), and to the 3rd countries such as Russia and China. The scope of these support activities can be of variable nature (list indicative and not exhaustive): • provide support to the set-up of customs business processes, • provide support to the set-up of customs IT processes, • provide specific expert expertise., The support offer will be expressed by the contractor as resource quantities to be used. The contractor will produce a report for each and every support activity. The support services can be performed on-site and/or off-site.
WP.8.5.4	Technical Review of the Deliverables of Other Contractors
	The Commission can ask the contractor to contribute to the verification of the technical conformance[5] of the deliverables of the other contractors with the specifications. This encompasses the following activities: • list and log of all comments related to a deliverable under review, • attendance at meetings or conference calls with all reviewers and authors, for clarification

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[5] To avoid any confusion on the activities covered by the expression "Quality Control", the description text uses the wording "technical conformance", which means that the reviewer is asked to comment on the quality of the deliverable at the level of the "technical conformance", as opposed to the "Quality Control" comments, which concentrate on problems of conformance with the Quality Procedures or Quality Assurance systems put in place. The latter will be performed by the QA contractor. In practice though, the comments concerning "technical conformance" and those concerning "quality control" will be gathered in a single database of comments, for the sake of author's facility.

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	of the issues and author positions,
	• warnings to the Commission in case of severe defect in the technical conformance of the deliverable.
	The review cycle will be performed as described in section 2.3.5.
	The Commission reserves its right to decide which of the review comments will be implemented amongst those submitted. The contractor has no right to limit its overall responsibility on the grounds that the Commission would have implemented only a subset of the comments issued.
WP.8.5.5	Delivery and Management of Translations
	The Commission can ask the contractor to manage and deliver translation from EN into any official EU language and from FR into EN and/or DE and from DE into EN and/or FR. The source can be plain text or more technical items such as screen labels, error messages, etc.
WP.8.5.6	Specific support on ARIS and/or other modelling tools
	This work package covers support tasks on the use and customisation of tools used for architecture work in addition and irrespective to the necessary support provided by the contractor on these tools under other WPs. The support is to be provided in the form of: • Consultancy or coaching to final users on the usage or management of the tool. DG TAXUD makes extensive use of the ARIS tool for Business Process Management and architecture purposes, however this WP relates specifically but not exclusively to the ARIS tool.
WP.8.6	The Business Perspective: Liaison with NAs, the Contractors and the Commission services
	Considering the high number of parties involved, there is a continuous need for working group meetings, trainings, workshops, demonstrations, missions, support activities, service meetings, technical meetings, and review and translations activities. The training material can be composed of all kind of items going from classical documents to multi-media facilities imbedded in an E-learning module.
WP.8.6.1	National Administrations Working Group Meetings and their Related Sub-groups
WP.8.6.1.1	Performance
	Active technical contribution to the meetings in Brussels. The contribution covers: • preparation of performance material. • performance during the meeting: presentation, answer to questions from attendance.
WP.8.6.1.2	Attendance
	Passive Attendance at the Working Group Meetings and their Sub groups.
WP.8.6.2	Training, Workshop, Demonstration
	Considering the high number of parties involved, there is a continuous need for demonstration, workshops and training sessions on the specifications, development and testing, products and services that the Central Project Team delivers. The training material can be composed of all kind of items going from classical documents to multi-media facilities imbedded in a E-learning module.
WP.8.6.2.1	Performance
	Active contribution to training/workshops/demonstration (preparation and performance) in Brussels, in a National Administration or at the contractor's premises, upon request from the Commission. The contractor is requested to cover:

	Work Packages
	• Preparation of training/workshop/demonstration material • Performance during the training/workshop/demonstration. • The preparation of a training/demonstration includes: • content specification of the training/demonstration, • ad-hoc material, software development, if needed. The trainings/workshops/demonstrations will be held in English, French or German.
WP.8.6.2.2	Attendance
	Passive attendance at training sessions, workshops, demonstrations in Brussels or in a National Administration. A short report or minutes will be produced.
WP.8.6.2.3	Hosting Facilities and Infrastructure
	To cover infrastructure and associated operation needs (like material move, set up) for hosting demonstration, training and workshops, and providing facilities required. This includes, amongst others, meeting rooms (up to 40 persons), training rooms, PCs (minimum one per two participants when applicable), and beamer. The hosting facilities must be located in Brussels and must be easily reachable by public transport. It also includes the copies of training/workshop/demonstration material for the participants.
WP.8.6.2.4	Reporting
	The contractor has to provide: • briefing with agenda • detailed minutes of the training/workshop/demonstration and mission reports • evaluation of the training/workshop/demonstration
WP.8.6.3	Missions
	The Commission can invite the contractor to participate in official co-ordination missions to National Administrations or to any 3rd party as required. The duration of the mission is limited to 'days' in terms of elapsed time and covers the following activities (list indicative and not exhaustive): • stock-taking of a given situation in a National Administration on a given customs business or IT subject; • underpinning activities for on-going feasibility studies, customs business or IT strategies, etc. • coordinate the national planning elements which have an impact on the overall EU planning. It covers: • preparation of agenda, briefing, • preparation of mission material, • performance during the mission. The contractor will produce a mission report that the Commission will submit for the review and approval of the visited party.
WP.8.7	Implement major IT transformations
	It is impossible to predict in specific terms what the impact could be of major IT evolutions that could be decided during the lifecycle of the CUST-DEV3 framework contract. This work package will support all required activities which need to be performed to support such a transformation. This work package is not to be confused with the Continuous Service Improvement Process (CSIP, WP.0.12) which is the underpinning process to improve the level of quality of the required services as a **continuous** service.
WP.8.8	Support outside Working Hours
	The 'Working Hours' scope is defined in section 4.4. This work package defines the services to be

	Work Packages
	provided by the contractor outside the working hours.
WP.8.8.1	Call availability outside Working Hours
	DG TAXUD will determine the list of IT critical systems/applications which are subject to support 7 days per week and 24 hours per day on all calendar days. This operational requirement implies that specific CUST-DEV3 staff must be on call outside working hours and which are able to assess a given operational situation such that they can take the appropriate action. This action can result in mobilising other staff needed to resolve the operational issue(s) (see WP.8.8.2). This work package covers only the availability service of a given person for a given IT system/application.
WP.8.8.2	Extended time coverage
	As a result of WP.8.8.1 or at explicit request of the Commission, the contractor will provide ad hoc services outside the CUST-DEV3 working hours. These services are to be performed according to an agreed scope and time schedule. The activities to be performed can be of a variable nature: an on-site activity performance, producing an emergency fix, etc. On site presence can be as well at the contractor's premises, DG TAXUD or any other party assigned by DG TAXUD. The contractor will have to produce a **report** for each and every "ad-hoc" extended time coverage support activity.
WP.10	**Deliverables and services on request in the scope of the Framework Contract**

Table 2 - Specifications of the Work Packages

2.3 Services and Deliverables

Services are delivered through the implementation of the above-described work package activities. The following sections provide further information about the various elements related to the service deliverables. The services are qualified by their deliverables and planning if applicable, request/order/delivery & acceptance mechanism and their Specific Quality Indicators (SQI).

DG TAXUD reserves the right to mutually agree with the CUST-DEV3 contractor in the Specific Contract or the Request for Action (and record in the DTM) a review cycle different from the one originally agreed upon.

2.3.1   Order Mechanism

A service and/or a deliverable can be ordered through one of the following:

- Specific Contract (SC),
- Request for Action (RfA).

The indicative ordering mechanism involving the use of a "RfA" with or without a Request for Estimation (RfE) and in relation to various budget provisions and services applicable in this contract is summarised in the table below.

Please also refer to section 3.1 for more details on the budget provisions.

Requests For Action (RfA) *The RfA is used to order additional quantities.*	**Type of services (in function of type of price elelement) possible by Budget Type Provision**

Budget Type Provision	RfA + RfE *(with Estimate)*	RfA only	With Unit Price	As Man-days	IT equipment	Travel and Subsistence
Fixed price			X	X	X	
Provision for On-Demand	X	X	X			
Provision for QTM	X			X		
Provision for Times and Means	X			X		
Provision for IT Equipment	X	X			X	
Travel and Subsistence		X				X

2.3.2 Request mechanism

A service and/or a deliverable can be requested through one of the following:

- Specific Contract (SC),

- Request for Estimate (RfE),

- Request for Offer (RfO),

- On Request (OR),

- Trigger (TR),

- Evaluation Request (ER).

The request mechanism involving the use of a "Trigger" with or without an Evaluation Request (ER) and in relation to various budget provisions[6] applicable in this contract is summarised in the table below:

Budget Type	Triggers (TR) *The trigger is used only to "trigger" the start of an activity*	
	Trigger + Evaluation Request (TR + ER)	Trigger Only
Fixed price	X	X

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[6] The budget provisions applicable in the context of this contract are: Fixed Price (FP), On-Demand (OD), Quoted Time & Means (QTM), Travel and Subsistence (T&S) and provisions for IT equipment (P&I).

Provision for On-Demand		X[7]
Provision for QTM		
Provision for Times and Means	X	
Provision for IT Equipment		
Travel and Subsistence		X

2.3.3   Planning Mechanism

The planning information will relate:

- For a service: to start, end or change of the service, as a service is considered to be continuous by nature;

- For a deliverable: to its submission for review and/or for acceptance.

The planning of the services and activities will be agreed in the Specific Contract, in compliance with this technical annex, using the following mechanisms, **in order of decreasing precedence**:

- In the SC, with a planning schedule specified in reference to T0, the starting date of the activity of the SC, and/or possibly to other internal/external dependencies. When applicable, the planning specifies for a deliverable if the date is for submission for review or for acceptance;

- In an RfA within an SC;

- In the FQP;

- Mutual agreement (MA) between the Commission and the contractor during the course of the SC, each planning agreement being recorded in the MPR of the month when the agreement took place;

- In a Trigger (operational way to indicate to the contractor to start an activity which has already been ordered and for which the quantities to be consumed are well-defined (trigger has no financial impact). The trigger may be sent to the contractor either by paper mail or by a registered e-mail to the contractor);

No higher planning mechanism may be over-ruled by a lower one. However, a lower one may include provisions not considered in the higher one, which do not contradict its text.

All the agreed planned dates, foreseen date, actual date of delivery are reported in the Monthly Progress Report.

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[7]   Once an RfA has been issued and quantities ordered, a trigger may be used to consume some of these quantities.

2.3.4   Delivery mechanism

The delivery mechanism is applicable to all artefacts which are a potential outcome of an ordered service. This not applicable for the service as such as the service reporting is systematically made in the Monthly Service Report to report the QoS metrics of the service.

2.3.5   Acceptance mechanism

2.3.5.1   acceptance of deliverables

The acceptance procedures applicable to the deliverables and services are specified hereafter. The FQP may specify further the acceptance process details of the deliverables but in case of conflict between these documents, the Specific Contract and this Technical Annex (Annex II.B - Technical Annex), the following decreasing precedence will prevail: SC, Technical Annex (Annex II.B - Technical Annex), FQP.

No formal acceptance applies for deliverables for which neither this Technical Annex (Annex II.B - Technical Annex) nor does the SC define an acceptance procedure.

All deliverables will be subject to a formal **T1/T2/T3 review cycle** (also referred to as SfR/SfA cycle):

T1 period:

- The contractor Submits for Review (SfR) its deliverable to the Commission, and any nominated party[8], at the agreed date, starting T1;

- The Commission reviews the SfR deliverable and returns its comments to the contractor at the end of T1;

- The Commission reserves its right to reject the review in case the deliverable SfR is not fit for review, ending T1;

 T2 period:

- T2 starts with the reception by the contractor of the review comments from Commission[9];

- the contractor submits his author positions for each of the comments submitted by the Commission;

- the Commission may call a review meeting with the contractor to resolve outstanding review issues;

- the review meeting decisions are submitted by

    - the contractor in case of minor or medium size review;

    - the Commission (or any other 3rd party designated by it, such as the QA contractor) in case of major size review;

- the contractor Submits for Acceptance (SfA) his deliverable before the end of the T2 delay, closing temporarily the T2 period, the final closure of T2 being subject to the approval of the deliverable (the time stamp of the delivery of the accepted version constitutes the final closure of T2);

T3 period:

- T3 starts with the reception of the SfA deliverable by the Commission;

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8   The Commission may use the support of the QA contractor for the management of the review cycles of submitted deliverables.

9   The Commission may request other parties involved in the business threads (like the business owners, the ITSM contractors, the QA contractor) to review deliverables submitted by the CUST-DEV3 contractor. The comments from the Commission will include the comments of these 3rd parties.

- The Commission will then verify the SfA deliverable and inform the contractor of any deviation of the SfA deliverable from the author positions and meeting decisions, within a pre-agreed period T3;

- In case of deviation, the T2 period is re-opened, up to the time that the contractor submits the version of the deliverable that the Commission will accept.

Once accepted, all deliverables become the property of the Commission, which is then the only party that can authorise their further use and distribution.

The FQP defines some of those pre-agreed periods (review cycles), while the Specific Contracts and the Requests for Action will define additional periods if required and will set the pre-agreed dates for delivery.

The Commission draws the attention of the contractor to the fact that the T1/T2/T3 review cycle is tightly related to the contractual planning. Indeed, a contractual date qualified for acceptance implies that the T1/T2 part of the cycle must be completed for the deliverable by that date, while a date qualified for review implies that the T1/T2/T3 cycle for the deliverable starts at that date.

2.3.5.1.1 Individual acceptance

The deliverables marked for Individual Acceptance (IA) in the SC or RfA will be subject to an individual acceptance letter by the Commission.

2.3.5.1.2 Deliverables accepted via the Monthly progress report

The deliverables specified with an acceptance mechanism "to be accepted via the Monthly Progress Report" are formally accepted through the formal acceptance of the MPR in which they are proposed for acceptance. Consequently, the MPR must contain a list of all deliverables presented for acceptance through it.

2.3.5.2 Services

The definition and the targets for the Quality of Services are set in the contractual OLA (refer to section 5.3.1 for more details on the OLA requirements) and the FQP, which itself may refer to other applicable SLAs/OLAs.

The Monthly Service Report must report the actual QoS of all the provided services and justify any deviation from target. The SQI is compiled from the target and actual QoS to quantify the deviation of reality from target and is also recorded in the Monthly Service Report.

The correctness of the reported QoS and SQI is accepted by the acceptance of the Monthly Service Report.

Note that it is the factual correctness (alias integrity) of the reported QoS and associated SQI which are subject to acceptance via the MSR and not the service itself. The accepted QoS and SQI become then the indisputable bases for computing the liquidated damages where applicable.

2.3.5.3 Monthly Progress report (MPR) and the Bilateral Monthly Meeting (BMM) minutes

The Commission will formally accept on a monthly basis the bundle made of the Monthly Progress Report (MPR), which includes the various Monthly Service Reports (MSR) and the minutes of the Bilateral Monthly Meeting (BMM). The Commission will not issue a separate acceptance for these deliverables.

The acceptance of the bundle will trigger the acceptance by default of the deliverables presented for acceptance in the accepted MPR.

In case of conflict between the MPR and the BMM minutes (even when accepted by the Commission) on the one hand and the contractual documents and FQP on the other hand, the latter will always take precedence.

For each Specific Contract (SC) in effect under a Framework Contract (FWC), there is one Monthly Progress Report (MPR) to be generated and delivered to DG TAXUD by the Contractor per month.

A model of the Monthly Progress Report (MPR) follows below. The FQP defines more precisely the structure of the Monthly Progress Report, based on the following indicative model:

1) <u>Introduction</u>: Normally, this section defines the period covered by this report.

2) <u>Highlights</u>: This section describes in brief the key achievements of the reporting period, the key issues identified or reported during the reporting period, deviations from the plan, and lists the deliverables subject to acceptance with this report.

3) <u>Progress</u>: This section describes in brief and in a structured manner the progress achieved within the context of the planned tasks. For each task, a short description of the contribution to the progress is given:

- description of the activities carried out;

- description of the results achieved;

- comments on on-going tasks, where appropriate;

- Justification of the deviations from Section 1.

Note: The FQP will define the detailed structure of this section of the Monthly Progress Report. All deliverables or software releases (new/corrective/evolutive) generated within each Work Package will also be listed together with their status (ex. under review, accepted, rejected, etc).

4) <u>Tasks planned for next month</u>: This section defines all tasks planned for execution for the next month.

5) <u>Requests for Actions / Quoted Time& Means Actions</u>: The Requests for Actions / Quoted Times & Mean actions status should be listed with their reference number and title, to which a short comment could be added, when useful.

6) <u>Evolution of GQI</u>: This section will list the evolution of the Global Quality Indicator (GQI) per each reporting month, at the level of the Specific Contract. Also, it will list the GQI values for each of the Request for Actions / Quoted Times & Means actions issued by the Commission

7) <u>Annexes</u>:

(1) the <u>Deliverable Tracking Matrix</u> showing the:

- planned delivery dates: contractually agreed, FQP agreed, RfA/QTM actions agreed or mutually agreed in advance in a previous accepted MPR; It should be noted that DTM is updated weekly by the contractor and delivered to DG TAXUD for information;

- foreseen delivery dates;

- actual delivery dates for review and for acceptance;

- deliverable delays (for review and acceptance);

- list of reviewers;

- etc.

(2) <u>Planning</u>: This annex includes the latest planning in place;

(3) <u>Consumption</u>: This annex reports on the monthly/foreseen consumption of all effort-based (man-days) quantified services ordered via the Specific Contract or via Request for Actions and/or Quoted Times & Means actions. It should be noted that consumption annex is updated weekly by the contractor and delivered to DG TAXUD for information;

(4) <u>Computation of GQI/SQIs</u>: This annex includes the detailed calculation of the GQI at the level of the Specific Contract and at the level of the RFAs and/or QTMS.

(5) <u>Risks</u>: This annex includes a registry of all identified risks together with their status and mitigation actions. The contractor will pay attention to, and report on, the following topics:

- Risk Identification,
- Risk Analysis,
- Risk Planning,
- Risk Tracking,
- Risk Control,
- Risk Communication

(6)   Travel Costs: This annex list all travels that took place in the context of the Specific Contract.

(7)   Monthly Service Report (MSR)

2.3.5.4 FQP, Takeover and Handover

The acceptance of the FQP[10] and the Takeover will be subject to a FAT the aim of which is to verify the integrity between the FQP and Takeover reports with the setup of the contractor.

The acceptance of the Handover will be subject to a FAT performed in the premises of the contractor.

2.3.5.5 Software

Acceptance of new applications or extensions of existing applications is performed according to a FAT/pSAT/SAT scheme, as detailed in the FQP, unless the Commission decides to go through a simple qualification.

2.3.5.6 COTS ICT infrastructure Products and services

The products will be accepted after reception of the delivery notification and by the formal acceptance of the Factory Acceptance Test report delivered by the contractor following an on site verification of the reported quality.

2.3.6   Specifications Life cycle Involving National Administrations

The life cycle of a specification involving the National Administrations of the Member States and/or Candidate Countries or the administrations of other 3rd countries comprises three consecutive steps: (1) production of the specification in order to have it accepted by the Commission, (2) review for subsequent acceptance by the involved NAs, (3) maintenance and support.

The Commission will call a review workshop with the NAs, the outcome of which is a "workshop decision" on each of the received comments.

The contractor will deliver the minutes of the workshop also according to an SfR/SfA cycle.

The Commission will then submit the bundle made of the documents as accepted by the Commission, and of the "workshop decision" for the approval of the National Administrations.

Once the NAs accept the bundle, the contractor will consolidate the "workshop decision" into the deliverables and deliver the final version of the specification, again according to an SfR/SfA cycle. This final version becomes part of the documentation baseline of the project.

All deliverables produced by the contractor under this step will be in EN only.

The timing of the consecutive SfR/SfA cycles can be defined in the FQP, Specific Contracts and the Requests for Action.

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[10] Please refer to WP.0.1 for more details on the FQP used during the take over and the first months of service and the final FQP (to be delivered for SFR 3 months after the take over).

The detailed sequence of events described above for the life cycle of specifications with the Member States is also summarised below.

ID	Task Name
1	**Life cycle for specifications**
2	Workshops with NAs
3	**Production of Specifications (SfR/SfA)**
4	SfR to Commission
5	Comments on Specifications received from the reviewers
6	Review meeting
7	Specifications SfA to the Commission
8	Specifications Accepted by the Commission
9	**Review and acceptance by the NAs**
10	Specifications sent to NAs for comments
11	Comments from the NAs
12	**Commission's author position on NAs comments Review Cycle**
13	Draft Author position on NAs comments, SfR to Commission
14	Comments on Author position received from the reviewers
15	Review meeting
16	Author position on NAs Comments, SfA to Commission
17	***Review workshop***
18	**Workshop decision Review Cycle**
19	Draft Workshop decision, SfR to the Commission
20	Comments on Workshop decision received from the reviewers
21	Review meeting
22	Workshop decision, SfA to Commission
23	***Specifications + Workshop decision accepted***
24	**Final Specifications Review Cycle**
25	SfR to the Commission
26	Comments on Final Specifications received from reviewers
27	Review meeting
28	Final Specifications, SfA to Commission

Figure 1 - Specifications Lifecycle involving NAs: Detailed Sequence of Events

2.3.7   Definition of SQIs

Refer to section 5 for more information on the SQI and GQI models and the way to calculate them from the QoS measurements, along with general indications on their use.

In order to emphasise the importance the Commission attaches to a successful Take-Over and the subsequent delivery of the adapted FQP, an important weight will be given to the applicable SQIs during the first Specific Contracts.

2.3.8   Service & Deliverables catalogue

The table below lists all the services and deliverables linked to the Work Packages specified in section 2.2 and contains the following information for each service & deliverable, where applicable:

- **Identification of the work package**: WP.w.x.y.z;

- **Identification of the service or deliverable**: DLV/SE-w.x.y.z;

  - DLV: a deliverable to be delivered to the Commission at a given date for review or acceptance;

  - SE: a service to be rendered to the Commission, the QoS of which must be reported in the monthly service report included in the Monthly Progress Report.

- **Plain text description** of the deliverable or of the service;

- **Order Mechanism, coded as follows:**

  - SC: Specific Contract,

  - RfA: Request for Action.

- **Request Mechanism, coded as follows:**

- SC: Specific Contract,

- RfA: Request for Action,

- RfE: Request for Estimate,

- RfO: Request for Offer,

- OR: On Request,

- TR: Trigger,

- ER: Evaluation Request.

- **Planning, coded as follows:**

  - Planning specified in reference to **T0**, the starting date of the activity of the SC, and/or possibly in reference to other internal/external dependencies. When applicable, the planning specifies if the date is for submission for review or for acceptance;

  - SC: Planning defined in the Specific Contract

  - FQP: Planning to be defined in the FQP,

  - RfA: Planning defined in the RfA,

  - Trigger: Planning will be defined in the Trigger,

  - MA: Planning mutually agreed and recorded in the MPR,

  - AN: As Needed meaning that the contractor must take the initiative to produce the deliverable whenever an external event triggers the need for it (mainly an incident/request),

  - Continuous: self-explanatory, applicable for service,

  - Reference to another service or deliverable, which means it follows the same planning,

  - Plain text.

  All references made under this section to "month" and "quarter" periods, to "monthly" and "quarterly" periodicity are relative to T0, the starting date of an SC, unless explicitly stated otherwise.

- **Delivery mechanism, coded as follows:**

  Not shown for services, as the service reporting is systematically made in the Monthly Service Report to report the QoS metrics of the service.

  In case of a deliverable,

  - ID: Individual Delivery: the deliverable is delivered on its own,

  - SC: Specific Contract: no decision is taken at the level of this Technical Annex if the delivery will take place as ID or in the context of the MPR. The decision will be taken at SC or RfA level;

  - RfA: Request for Action: no decision is taken at the level of this Technical Annex if the delivery will take place as ID or in the context of the MPR. The decision will be taken at SC or RfA level;

  - TR: Trigger,

  - MPR: Monthly Progress Report,

  - FQP: Framework Quality Plan.

- **Acceptance mechanism, coded as follows:**

"MPR" shown for service, as the correctness of the reported QoS and SQI is accepted via the acceptance of the MSR, as a part of the MPR. Note that it is the factual correctness (alias integrity) of the reported Quality of Service (QoS) which is subject to acceptance in the monthly progress report and not the service itself.

In case of a deliverable:

- NO: No formal acceptance required,

- IA: Individual Acceptance: the Commission will issue a dedicated acceptance letter for the deliverable (Individual Acceptance);

- SC: Specific Contract: no decision is taken at the level of this Technical Annex if the acceptance will take place at Individual leven (IA) or at MPR level (MPR). This is directly linked with the applicable delivery mechanism;

- RfA: Request for Action: no decision is taken at the level of this Technical Annex if the acceptance will take place at Individual leven (IA) or at MPR level (MPR). This is directly linked with the applicable delivery mechanism;

- DLV.0.7 (MPR): Monthly Progress Report: the acceptance by default of the deliverable by the acceptance of the Monthly progress report in which the deliverable is proposed for acceptance. The non-acceptance of the deliverable would need to be notified as a specific qualification in the letter of (non) acceptance of the MPR;

- Reference to another deliverable, which means it has the same acceptance mechanism.

- **SQI:**

  - Either a reference to an applicable SQI defined in section 5,

  - Or a reference to another deliverable/service, the SQI of which is applicable;

  - Or "SC", "RfA" or "Trigger", which means that the SQIs will be defined in the Specific Contract or Request for Action.

If a reference is made to an SQI which is composed of multiple sub SQIs (e.g. SQI1 can be SQI1a or SQI1b) then all sub SQIs related to this SQI can be used.

Please note that **SQI13** (complaints related) is applicable to all services and/or deliverables of the contractor and is for readability reasons not added in all entries of the table below.

⚠ The following list is provided for information only, it is neither exhaustive nor binding as it constantly evolves and does not take into account the future transformations that will occur during the lifetime of the CUST-DEV3 contract. The present list is provided to give an indication to the Tenderer of the level of deliverables expected. This list may be specified by DG TAXUD at each Specific Contract or Request for Action.

For all deliverables mentioned below, the following information will be completed in the first delivery of the FQP: review cycle, publication (CIRCA, email, online), etc. The structure of the main deliverables will be in line with the one provided by the incumbent contractors and if needed will be updated in the first delivery of the FQP.

The **delivery format** of all deliverables mentioned below will have to be agreed with DG TAXUD and described in the first delivery of the FQP. By default, it will a MS-Office (or compatible) deliverable uploaded on CIRCA but DG TAXUD may agree to change to format of some deliverables e.g. extracts from the SMT or CMDB data available on the portal or log files of test tools,. Furthermore, some deliverables will have to be continuously updated and on-line via the agreed toolset (see deliverables table for details).

Also, the contractor has to re-deliver the artefacts upon request of the Commission and at least once a year (see WP.10) to an electronic repository of the Commission (CIRCA for example). However, the Commission may request the contractor to redeliver them on a DVD-ROM media instead.

All written artefacts are to be produced in **English**, unless stated otherwise.

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.0.1	DLV-0.1-1	FQP, including its annexes	SC	SC	SFR 3 months after the take over	ID	IA	SQI02
WP.0.1	DLV-0.1-2	Updated version of FQP, including its annexes and the internal working procedures	SC, RfA	SC, RfA	as per SC or RfA	ID	IA	SQI02
WP.0.4	DLV-0.4-1	SC offer in response to RFO	SC	RfO	As specified in the RFO	ID	As specified in the RFO	SQI09

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.0.4	DLV-0.4-2	Proposal/Offer in response to ER or in response to RfE	RFA	ER, RfE	The response time along with the T1/T2/T3 review cycle for a proposal/offer will be defined by the Commission in the ER or RfE.	ID	Order (RFA or trigger) made on the basis of the offer/proposal	SQI09
WP.0.4	DLV-0.4-3	RfA Acceptance Report	SC	SC	Upon completion and subject to Individual Acceptance	ID	MPR	-
WP.0.5.1	SE-0.5.1-1	Internal QA and QC	SC	SC	Continuous	-	MPR	-
WP.0.5.1	DLV-0.5.1-2	Quality records (minutes of internal meetings), filed in contractor's premises	SC	OR	max 5 wdays upon request from the Commission	ID	no	-
WP.0.5.2	SE-0.5.2-1	Risk Management	SC	SC	Continuous	-	MPR	-
WP.0.5.2	DLV-0.5.2-2	Risk analysis records (filed in contractor's premises)	SC	OR	max 5 wdays upon request from the Commission	ID	no	-
WP.0.5.3	DLV-0.5.3-1	Self-Assessment reports	SC	OR	at least twice per year	ID	no	SQI10
WP.0.5.3	DLV-0.5.3-2	Internal Audit reports	SC	OR		ID	no	
WP.0.5.4	SE-0.5.4-1	Internal Team Organisation and Management	SC	SC	Continuous	-	MPR	SQI19 SQI20 SQI21
WP.0.5.4	DLV-0.5.4-2	Provide number of staff, names, location, qualifications, etc.	SC	SC or OR	As part of MPR or specific upon request	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.0.6	SE-0.6-1	Preparation of and attendance at monthly meetings (BMM)	SC	SC	as per FQP and in exceptional case, MA	-	MPR	-
WP.0.6	SE-0.6-2	Attendance at BMM follow-up meetings	SC	OR	Day after BMMor MA	-	MPR	-
WP.0.6	SE-0.6-3	Attendance at multilateral meetings	SC	OR	Monthly or on request	-	MPR	-
WP.0.6	SE.0-6-4	Attendance at the Steering Committee meetings	SC	SC	MA, on average once per quarter	On time and prepared to discuss strategic reports, plans and risks.		-
WP.0.6	SE-0.6-5	Attendance at ad hoc meetings	SC	OR	on 4 hours notice	-	MPR	-
WP.0.6	SE-0.6-6	Attendance at project, contract and supply mgmt. meetings with DG TAXUD sector	SC	OR	Bi-weekly	-	MPR	-
WP.0.6	SE-0.6-7	Attendance at meetings with IT category owners	SC	OR	Monthly	-	MPR	-
WP.0.6	SE-0.6-8	Attendance at meetings with DG TAXUD/LISO related to security aspects	SC	OR	MA	-	MPR	-
WP.0.6	SE-0.6-9	Attendance at meetings with responsible Commission sector related to the hosting of systems/applications/components in the DG TAXUD Data Centre	SC	OR	MA	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.0.6	DLV-0.6-10	Agenda of Bilateral Monthly Meeting	SC	SC	1 w-day before the meeting	ID	MPR	SQI02
WP.0.6	DLV-0.6-11	Minutes of the Bilateral Monthly Meeting bundled with MPR	SC	SC	Date of BMM + 10 wdays for acceptance	ID	IA bundled with MPR	-
WP.0.6	DLV-0.6-z-12	Meeting documents (agenda, briefing material, minutes and action lists) (z= all the meetings)	SC	SC	Date of the meeting +5 wdays for acceptance9	ID	MPR	SQI04
WP.0.7	DLV-0.7-1	Monthly Progress Reports, which includes Monthly Service Reports, Service Level Reports and annexes	SC	SC	Max (end of the reporting period + 5 wdays, Date of BMM – 5 wdays) for review Max (Date of BMM +5 wdays) for acceptance	ID	IA	SQI02
WP.0.7	DLV-0.7-2	Daily, weekly and quarterly reports, as documented in the FQP	SC	SC	As per FQP	ID	IA	SQI04
WP.0.8	DLV-0.8-1	Weekly update of the planning of contractors' activities, services and deliverables	SC	SC	as per MPR	MPR	MPR	-
WP.0.9	SE.0-9-1	Co-operation with the Commission (and any third party nominated by it) during quality, process and security audit	SC	SC	Average duration of 5 wdays, date as per request if requested date is more than 2 weeks from date of request, otherwise MA;	Positive feedback from the auditors regarding the co-operation of the contractor during audit.		-
WP.0.9	DLV-0.-9-2	Position of the audited contractor on the audit report	SC	SC	20 wdays after reception of the audit report, for acceptance	ID	IA	SQI02

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.0.9	DLV-0.-9-3	Confirmation that the agreed actions by the contractor are implemented	SC	SC	According to the agreed timetable	All actions performed by the contractor according to expectations		SQI23
WP.0.10	DLV-0.10-1	Re-delivery of all artefacts from the past year to an electronic repository of the Commission (Commission may also request re-delivery on DVD-ROM, if necessary) and according to the anonymisation principles	SC	SC	As per SC or RFA	ID	MPR	SQI02
WP.0.11	SE.0-11-1	Co-operation with the Commission (and any third party nominated by it) during benchmarking related to the costs of effort quoted by the contractor for its activities	SC	OR	MA	Positive feedback from the third party regarding the co-operation of the contractor during the benchmark.		-
WP.0.12	SE-0.12-1	Definition and running of a CSIP linked to all services of the FC	SC, RFA	SC, RFA	As per SC or RFA	-	MPR	
WP.0.12	DLV-0.12-2	CSIP improvement proposals	SC	SC	Minimum once a year	ID	IA	SQI04
WP.0.12	DLV-0.12-3	Reports on CSIP related activities	SC	SC	Following undertaken activities	ID	MPR	SQI04
WP.0.13	SE-0.13-1	Maintenance and monitoring of the contractual OLA and the service catalogue	SC, RFA	SC, RFA	As per SC or RFA	-	MPR	-
WP.0.13	DLV-0.13-2	Service catalogue	SC	SC	Minimum once a year	ID	IA	SQI04
WP.0.13	SE-0.13-3	Performance of user satisfaction survey	SC, RFA	SC, RFA	Once a year	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.0.13	DLV-0.13-4	Report on outcome of user satisfaction survey	SC	SC		ID	IA	SQI04
WP.0.14.1	SE-0.14.1-1	Maintenance of the security plan	SC, RFA	SC, RFA	As per SC or RFA	-	MPR	-
WP.0.14.1	DLV-0.14.1-2	Security plan	SC	SC	Minimum once a year	ID	IA	SQI02
WP.0.14.2	SE-0.14.2-1	Integration of security requirements	SC, RFA	SC, RFA	As per SC or RFA	-	MPR	-
WP.0.15	SE-0.15-1	Management of business continuity	SC, RFA	SC, RFA	As per SC or RFA	-	MPR	-
WP.0.16.1	SE-0.16.1-1	Maintenance of a knowledge base for all stakeholders	SC, RFA	SC, RFA	As per SC or RFA	-	MPR	-
WP.0.16.1	DLV-0.16.1-2	Knowledge base	SC	SC	Minimum once a year	ID	IA	SQI04
WP.0.16.2	SE-0.16.2-1	Management of knowledge transfer	SC, RFA	SC, RFA	As per SC or RFA	-	MPR	-
WP.0.16.2	DLV-0.16.2-2	Reports on knowledge transfer	SC, RfA	SC, RfA	Must be available on side and provided to the Commission with 3wd upon request	ID	IA	SQI04
WP.2	SE-2-1	Takeover activities	SC	SC	Continuous during the takeover period	No regression/no incident after takeover, no complaint from 3rd parties during takeover, no deviation according to plan		SQI22
WP.2	DLV-2-2	Detailed takeover plan	SC	SC	Submitted for acceptance as per SC	ID	IA	SQI02

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.2	DLV-2-3	Takeover FAT report (for every phase)	SC	SC	Submitted for acceptance as per SC	ID	IA	SQI01
WP.2	DLV-2-4	Final takeover report	SC	SC	Submitted for acceptance as per SC	ID	IA	SQI01
WP.2	DLV-2-5	Updated FQP	SC	SC	Submitted for acceptance as per SC	ID	IA	SQI01
WP.2.2	DLV-2.2-z-1	ATP (definition of FAT scope) (z= all applications)	SC	SC	Submitted for acceptance as per SC	ID	IA	SQI04
WP.2.2	DLV-2.2-z-2	FAT report (z= all applications)	SC	SC	Submitted for acceptance as per SC	ID	IA	SQI01
WP.2.2	DLV-2.2-z-3	Analysis report counting the IFP points (z= all applications)	SC	SC	Submitted for acceptance as per SC	ID	IA	SQI01
WP.3	SE-3-1	Handover activities	SC, RFA	SC, RFA	Continuous during the handover period	Failure to pass the information and knowledge to the future new contractor will result in non-payment of the management services of the contractor during the hand-over period		-
WP.3.1	DLV-3.1-1	Detailed handover plan	SC, RFA	SC, RFA	Submitted for acceptance as per SC/RFA	ID	IA	SQI02
WP.3.1	DLV-3.1-2	Handover report (incl. lessons learned)	SC, RFA	SC, RFA	Submitted for acceptance as per SC/RFA	ID	IA	SQI04
WP.3.1	DLV-3.1-3	Handover SAT plan	SC, RFA	SC, RFA	Submitted for acceptance as per SC/RFA	ID	IA	SQI01

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.3.1	DLV-3.1-4	Handover SAT report	SC, RFA	SC, RFA	Submitted for acceptance as per SC/RFA	ID	IA	SQI01
WP.3.1	DLV-3.1-z-5	Handover of all artefacts, tools and related documentation (except for those related to the central IT applications) (z= all components)	SC, RFA	SC, RFA	Submitted for acceptance as per SC/RFA	ID	IA	SQI04
WP.3.2	DLV-3.2-z-1	Handover of all documentation, source code and reports related to the central IT applications (incl. final outstanding defect list and final baseline) (z= all applications)	SC, RFA	SC, RFA	Submitted for acceptance as per SC/RFA	ID	IA	SQI04
WP.3.3	SE-3.3-1	Support/training to the new contractor during the handover process	SC, RFA	SC, RFA	During 3 months	-	MPR	-
WP.3.3	DLV-3.3-2	After-handover support weekly report	SC, RFA	SC, RFA	Submitted for acceptance as per SC	ID	IA	SQI01
WP.3.3	DLV-3.3-3	Updated version of handover report (incl. after handover support period)	SC, RFA	SC, RFA	Submitted for acceptance as per SC	ID	IA	SQI01
WP.4.1	SE-4.1-1	Support on IT strategy definition and implementation	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.4.1	DLV-4.1-z-2	Strategy studies (z= all strategy alternatives)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.4.2	SE-4.2-1	Definition and maintenance of IT Portfolio and Master Plan	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.4.2	DLV-4.2-2	IT Master Plan	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.4.2	DLV-4.2-z-3	IT Portfolio (z= all components)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.4.3	SE-4.3-1	Support on Architecture framework	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.4.3	DLV-4.3-z-2	Architecture framework and methods documents (z= all components)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.4.4	SE-4.4-1	Support on enterprise architecture development	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.4.4	DLV-4.4-z-2	Enterprise architecture framework and methods documents (z= all components)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.4.5	SE-4.5-1	Support on application and service architecture support	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.4.5	DLV-4.5-z-2	Global EU Customs Application and Service Architecture documents (z= all components)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.4.5	DLV-4.5-z-3	TAXUD EU Customs Application and Service Architecture documents (z= all components)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.4.6.1	SE-4.6.1-1	Architecture development support	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.4.6.2	SE-4.6.2-1	Architecture implementation support	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.4.6.3	SE-4.6.3-1	Architecture transition and operational support	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.4.6.4	SE-4.6.4-1	Architecture continuous improvement support	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.4.7	SE-4.7-1	Support on ARIS and Architecture tools	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.4.7	DLV-4.7-z-2	Updated version of the user guidelines and modelling conventions (z= all components)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.4.7	DLV-4.7-3	Updated version of the ARIS or architecture tool (customisation /configuration)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.5	DLV-5-z-1	BPM or specification documents translated into DE or FR (z= all systems)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.5.1	SE-5.1-1	Production and maintenance of Feasibility Studies	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.5.1	DLV-5.1-z-2	Feasibility Studies (FS) (z= all systems)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.5.2	SE-5.2-1	Production and maintenance of the Business Analysis documents	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.5.2	DLV-5.2-z-2	Business Analysis documents (z= all systems)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.5.3	SE-5.3-1	Production and maintenance of the BPMs (levels 1-2-3)	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.5.3	DLV-5.3-z-2	BPM (levels 1-2-3) documents (z= all systems)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.5.4	SE-5.4-1	Production and maintenance of Business Requirements	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.5.4	DLV-5.4-z-2	Business Requirements documents (z= all systems)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.5.5	SE-5.5-1	Production and maintenance of detailed level 4 BPMs	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.5.5	DLV-5.5-z-2	Detailed level 4 BPM documents (z= all systems)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.5.6	SE-5.6-1	Production and maintenance of Business Test Criteria and Acceptance Test documentation	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.5.6	DLV-5.6-z-2	Business Test Criteria and Acceptance Test documentation (z= all systems)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.5.7	SE-5.7-1	System scope management	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.5.7	DLV-5.7-z-2	System scope documents (z= all systems)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.6.1	SE-6.1-1	Production and maintenance of feasibility studies and IT inception artefacts	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.6.1	DLV-6.1-z-2	Feasibility Studies and IT inception artefacts (z= all applications)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.6.2	SE-6.2-1	Production and maintenance of IT requirements	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.6.2	DLV-6.2-z-2	IT requirements documents (z= all applications)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.6.3	SE-6.3-1	Production and maintenance of architectural solutions for the Customs IT systems/applications	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.6.3	DLV-6.3-z-2	Architectural documents (z= all applications)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.6.4	SE-6.4-1	IT analysis	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.6.4	DLV-6.4-z-2	IT analysis documents (z= all applications)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.6.5	SE-6.5-1	IT design	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.6.5	DLV-6.5-z-2	IT design documents (z= all applications)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01
WP.6.6.1	SE-6.6.1-1	Production and maintenance of the Master Test Plan	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.6.6.1	DLV-6.6.1-z-2	MTP (Master Test Plan) (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.6.6.2	SE-6.6.2-1	Production and maintenance of the Test Design Specification	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.6.6.2	DLV-6.6.2-z-2	TDS (Test Design Specification) (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.6.7	SE-6.7-1	Production and maintenance of the specifications required to support the IT implementation of a given IT system/application and possible migration activities.	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.6.7	DLV-6.7-z-2	IT implementation and migration documents (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.7.1	DLV-7.1-z-1	IT Detailed Design documents (z= all applications)	SC, RFA	SC, RFA, Trigger	Submitted as per SC or RfA or Trigger	ID	none	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.7.2	SE-7.2-1	Development and documenting of Programs or Software components	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.7.2	DLV-7.2-z-2	Documentation of Programs and Software components (z= all applications)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI02
WP.7.2	DLV-7.2-z-2	Programs and Software Components (subject to FAT and SAT) (z= all applications)	SC, RfA	SC, RfA	Submitted for review and acceptance as per SC or RfA	ID	IA	SQI01 SQI07 SQI26 SQI27
WP.7.3	SE-7.3-1	Production and maintenance of Supporting Manuals	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.7.3	DLV-7.3-z-2	Supporting manuals (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.7.4.1	SE-7.4.1-1	Production and maintenance of Test Design Specifications (TDS) and test cases for FAT	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.7.4.1	DLV-7.4.1-z-2	Test Design Specifications (TDS) and test cases for FAT (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.7.4.2	SE-7.4.2-1	Production and maintenance of Test Design Specifications (TDS) and test cases for CT	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.7.4.2	DLV-7.4.2-z-2	Test Design Specifications (TDS) and test cases for CT (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.7.4.3	SE-7.4.3-1	Production and maintenance of the Acceptance Test Plan (ATP) for FAT	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.7.4.3	DLV-7.4.3-z-2	Acceptance Test Plan (ATP) for FAT (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.7.4.4	SE-7.4.4-1	Production and maintenance of the Acceptance Test Plan (ATP) for QT	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.7.4.4	DLV-7.4.4-z-2	Acceptance Test Plan (ATP) for QT (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.7.5.1	SE-7.5.1-1	Unit testing	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.7.5.1	DLV-7.5.1-z-2	Records of unit testing (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.7.5.2	SE-7.5.2-1	Integration testing	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.7.5.2	DLV-7.5.2-z-2	Records of integration testing (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.7.5.3	SE-7.5.3-1	Factory Acceptance Testing (FAT)	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.7.5.3	DLV-7.5.3-z-2	FAT report (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.7.5.4	SE-7.5.4-1	Qualification Testing (QT)	SC, RFA	SC, RFA	Continuous during SC or RFA	-	MPR	-
WP.7.5.4	DLV-7.5.4-z-2	Delivery Qualification Report (DQR) (z= all applications)	SC, RfA	SC, RfA, Trigger	Submitted for review and acceptance as per SC or RfA or Trigger	ID	IA	SQI01
WP.8.1.1.1	SE-.8.1.1.1-1	Handling of specification and software incidents as per contractual OLA and FQP	SC, RFA	SC, RFA	Continuous as from the allocation of the call	According to expectations set in the contractual OLA.		SQI05a
WP.8.1.1.2	SE-.8.1.1.2-1	Handling of Requests for Information (RfI) as per contractual OLA and FQP	SC, RFA	SC, RFA	Continuous as from the allocation of the call	According to expectations set in the contractual OLA.		SQI06
WP.8.1.2	SE-.8.1.2-1	Problem management as per contractual OLA and FQP	SC, RFA	SC, RFA	Continuous as from the allocation of the call	According to expectations set in the contractual OLA.		SQI05b
WP.8.1.2	DLV-8.1.2-2	Problem management reports	SC, RfA	SC, RfA, Trigger	On a daily/weekly/monthly basis	ID	MPR	SQI04

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.8.1.2	DLV-8.1.2-z-3	System specific problem management reports (z= all systems)	SC, RfA	SC, RfA, Trigger	On request	ID	MPR	SQI04
WP.8.1.3.1	SE-.8.1.3.1-1	Change management as per contractual OLA and FQP	SC, RFA	SC, RFA, Trigger	Continuous as from the registration of the Request for Change	According to expectations set in the contractual OLA.		-
WP.8.1.3.2	DLV-8.1.3.2-1	Requests For Change ready fro discussion at CAB	SC, RfA	SC, RfA, Trigger	Following the schedule of the CABs	ID	MPR	-
WP.8.1.3.2	DLV-8.1.3.2-2	Record of CAB decisions	SC, RfA	SC, RfA, Trigger	Following the schedule of the CABs	ID	MPR	-
WP.8.1.4.1	SE-.8.1.4.1-1	Reparation of defects of the IT Specifications	SC, RFA	SC, RFA, Trigger	Continuous as from the registration of the defects	According to expectations set in the contractual OLA.		-
WP.8.1.4.2	SE-.8.1.4.2-1	Reparation of defects of the Build and Test software and documents	SC, RFA	SC, RFA, Trigger	Continuous as from the registration of the defects	According to expectations set in the contractual OLA.		SQI12
WP.8.1.4.1	DLV-8.1.4.2-2	Emergency fix (hotfix)	SC, RfA	SC, RfA, Trigger	OR	ID	MPR	SQI12
WP.8.2	SE-.8.2-1	Configuration management according to the contractual OLA and FQP	SC, RFA	SC, RFA	Continuous	-	MPR	-
WP.8.3.1	SE.8.3.1-1	Delivery of software	SC, RFA	SC, RFA, Trigger	Continuous	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.8.3.1	DLV.8.3.1-1	Software release	SC, RFA	SC, RFA, Trigger	Submitted as per SC, RFA, Trigger	ID	IA or MPR	As per SC, RFA
WP.8.3.2	SE.8.3.1-2	Support to service transition services	SC, RFA	SC, RFA	Continuous	-	MPR	-
WP.8.3.3	SE.8.3.1-3	Knowledge transfer between the CUST-DEV3 and the ITSM2 contractors	SC, RFA	SC, RFA	Continuous	-	MPR	-
WP.8.3.3	DLV.8.3.1-4	Training and knowledge material for ITSM2 contractors	SC, RFA	SC, RFA	Continuous	-	MPR	-
WP.8.4.1	SE.8.4.1-1	Set up, Install, Operate and Maintain the IT infrastructure and Tools at the DG TAXUD Data Centre	SC, RFA	SC, RFA	Continuous	-	MPR	-
WP.8.4.1.1	SE.8.4.1.1-1	ICT Infrastructure and Tools Capacity Management	SC, RFA	SC, RFA	Continuous	-	MPR	-
WP.8.4.1.1	DLV.8.4.1.1-2	The infrastructure and tools configuration baseline	SC, RFA	SC, RFA	Submitted as per FQP	-	MPR	-
WP.8.4.2	SE.8.4.2-1	Set up, Install, Operate and Maintain the test environments at the DG TAXUD Data Centre	SC, RFA	SC, RFA, Trigger	Continuous	-	MPR	-
WP.8.4.3	SE.8.4.3-1	Hardware and COTS acquisitions required to support CUST-DEV3 services	SC, RFA	SC, RFA	MA	-	MPR	-
WP.8.5.1	SE.8.5.1-1	Service Transition and operational support	SC, RFA	SC, RFA, Trigger	Trigger	-	MPR	-
WP.8.5.2	SE.8.5.2-1	Conformance Testing support	SC, RFA	SC, RFA, Trigger	Trigger	-	MPR	-
WP.8.5.3	SE.8.5.3-1	Support to the National Administrations	SC, RFA	SC, RFA, Trigger	Trigger	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.8.5.4	SE.8.5.4-1	Technical Review of the Deliverables of Other Contractors	SC, RFA	SC, RFA, Trigger	Trigger	-	MPR	-
WP.8.5.5	SE.8.5.5-1	Delivery and Management of Translations	SC, RFA	SC, RFA, Trigger	Trigger	-	MPR	-
WP.8.5.6	SE.8.5.6-1	Specific support on ARIS and/or other modelling tools	SC, RFA	SC, RFA, Trigger	Trigger	-	MPR	-
WP.8.6.1.1	DLV-8.6.1.1-1	Working Group Meeting – Preparation of material	SC, RfA	RfA, Trigger	meeting date – 10 wdays for review, - 5 wdays for acceptance	ID	MPR	SQI03
WP. 8.6.1.1	SE-8.6.1.1-2	Working Group Meeting- Performance	SC, RfA	RfA, Trigger	date as per request	-	MPR	-
WP.8.6.1.2	SE-8.6.1.2-1	Working Group Meeting – Attendance	SC, RfA	RfA, Trigger	date as per request	-	MPR	-
WP.8.6.2.1	DLV-8.6.2.1-1	Training/workshop/demo – Preparation material	SC, RfA	RfA, Trigger	Date of the Training/Workshop/Demo – 5 wdays, for review Date of the Training/Workshop/Demo – 2 wdays, for acceptance	ID	IA	SQI02
WP. 8.6.2.1	SE-8.6.2.1-2	Training/workshop/demo – Performance	SC, RfA	RfA, Trigger	date as per request if requested date is more than 3 weeks from date of request, otherwise MA;	-	MPR	-

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP. 8.6.2.2	SE-8.6.2.2-1	Training/workshop/demo – Attendance	SC, RfA	RfA, Trigger	date as per request if requested date is more than 3 weeks from date of request, otherwise MA;	-	MPR	-
WP. 8.6.2.2	DLV-8.6.2.2-2	Training/workshop/demo – Attendance Report	SC, RfA	RfA, Trigger	Date of Training/workshop/demo + 5 wdays for review Date of Training/workshop/demo + 10 wdays for acceptance	ID	MPR	SQI02
WP. 8.6.2.3	SE-8.6.2.3-1	Training/workshop/demo – Hosting Facilities and infrastructure: Meeting room up to 40 persons in contractor's premises	SC, RfA	RfA, Trigger	date as per request if requested date is more than 3 weeks from date of request otherwise MA;	-	MPR	-
WP. 8.6.2.4	DLV-8.6.2.4-1	Training/workshop/demo – Agenda	SC, RfA	RfA, Trigger	Date of the Training/workshop/demo – 8 wdays, for review	ID	no	SQI02
WP. 8.6.2.4	DLV-8.6.2.4-2	Training/workshop/demo – Briefing	SC, RfA	RfA, Trigger	Date of the Training/workshop/demo – 5 wdays, for review	ID	no	SQI02
WP. 8.6.2.4	DLV-8.6.2.4-3	Training/workshop/demo – Detailed minutes and evaluation	SC, RfA	RfA, Trigger	Date of the Training/workshop/demo + 10 wdays, for acceptance	ID	MPR	SQI02
WP.8.6.3	DLV-8.6.3.-1	Mission – Preparation of agenda	SC, RfA	RfA, Trigger	Date of the mission – 15 wdays, for review, if mission date is more than 3 weeks from date of request, otherwise MA.	ID	no	SQI03

Work Package	Deliverable	Deliverable Title	Order mechanism	Request mechanism	Planning	Delivery Mechanism	Acceptance Mechanism	SQI (indicative)
WP.8.6.3	DLV-8.6.3.-2	Mission – Briefing	SC, RfA	RfA, Trigger	Date of the mission – 5 wdays, for review	ID	no	SQI03
WP.8.6.3	DLV-8.6.3.-3	Mission – Preparation of material	SC, RfA	RfA, Trigger	Date of the mission – 5 wdays, for review Date of the mission – 2 wdays, for acceptance	ID	no	-
WP.8.6.3	SE-8.6.3-4	Mission – Performance	SC, RfA	RfA, Trigger	Average duration of 2 wdays, date as per request if requested date is more than 2 weeks from date of request ,otherwise MA;	-	MPR	-
WP.8.6.3	DLV-8.6.3-5	Mission – Report	SC, RfA	RfA, Trigger	Date of the mission + 10 wdays, for acceptance	ID	MPR	SQI03
WP.8.8.1	SE-8.8.1-1	Call availability outside working hours	SC, RFA	SC, RFA	Continuous	-	-	-
WP.8.8.2	SE-8.8.2-1	Extended time coverage	SC, RFA	RfA, Trigger	Trigger or MA	ID	MPR	-
WP.10	DLV/SE.10.x	Other services and deliverables in the scope of the contract.	SC, RfA	SC, RfA	As per SC or RfA	SC, RfA	SC, RfA	SC, RfA

Table 3 – Services & Deliverables

3. Price list Requirements

The various price elements have to be determined by the contractor such that they guarantee a correct team capacity and quality result. The overall team size is by nature variable to some extent and will require a solid demand and capacity management at contractor level. The information in this section has to be considered together with the staff requirements as expressed in section 4.

The following types of price elements are to be considered in this context:

- Fixed Price elements must cover the correct resource capacity for the covered service(s). An example is the correct size of the overall management team making sure that all required roles are staffed sufficiently;

- Price elements per man-day per profile will be used for the services which cannot be ordered by means of service specific quantities. These price elements are mainly applicable to services which cannot be defined in advance in terms of duration of the required activities. Examples are the production of artefacts for the inception phase of a new IT Project. As these proposals are subject to a more subjective assessment, mechanisms will be put in place to measure the contractor's productivity for these types of service complemented with benchmarking;

- Service specific quantity price elements are used wherever possible to reflect as closely as possible the nature of the service to be provided. It is the responsibility of the contractor to determine the price in function of the expected productivity for a given period in time. Examples of these price elements are incidents to resolve, defects to repair, requests for change to assess, releases to manage, etc.

The different price elements must cover the cost of the following:

- All meetings with the Commission and its stakeholders; no specific provision will be made for meetings;

- The indirect costs resulting from the internal team organisation unless this is explicitly covered by a price element of this Technical Annex. This covers the hierarchical structure in function of the size of the overall and specific teams to setup and to maintain;

- The indirect costs due to the interaction model with the stakeholders (refer to interaction model as explained in section 4.3) unless this is covered explicitly by a price element of this Technical Annex;

- The specific internal QC activities related to complete the possible review cycles of a deliverable:
  - provide the author's position on technical and quality review comments, given by the Commission and/or any other party involved in the project, on deliverables submitted for review to the Commission,
  - participate in the review meeting(s) to clarify the author's position on review comments and reach agreement on implementation of the review comments (either in the Commission's premises or by conference call), and implement the review meeting decisions in the relevant deliverable.

The following services must be made available at no additional cost as they are considered being part of the standard available services of the tenderer (please refer to section 6 for more information on infrastructure and tools):
- office infrastructure;
- development labs at the contractor premises;
- knowledge management tools.

3.1 Types Of Budget Provision

There are six (6) types of budget provision that can apply to the various CUST-DEV3 Specific Contracts, namely the:

- Fixed Price (FP) provision,

- On-Demand (OD) provision,

- Quoted Times & Means (QTM) provision,

- Times and Means (T&M) provision,

- IT equipment Provision (P&I), and the

- Provision for Travel and Subsistence (T&S) provision.

3.1.1 Fixed Price (FP)

Activities under Fixed-Price may start as soon as the SC has been signed according to the agreed planning.

There are two particular cases relying on triggers, namely:

Case 1:   activities for which an overall budget is quoted under FP (maximum quantities defined) but which will need a preliminary evaluation (use of Evaluation Request – ER) between the contractor and the Commission to determine how many Units are needed to perform a given activity. A typical example is the quotation in man-days when Units are based on man-days. Once agreement is reached the action is launched by the Commission using a trigger.

Case 2:   activities for which an overall budget is quoted under FP (maximum quantities defined) but which need an explicit trigger to start (for example: attendance at a given training activity, performance of a mission).

Triggers have no financial impact since budget is already committed.

3.1.2 On Demand (OD)

The Provision for OD budget is to be committed exclusively via the use of the RfE/RfA procedure. The RfE is used prior to issuing the RfA when an estimate is required from the contractor. By definition, an RfA under "On-Demand" budget has always a financial impact.

Once part of the Provision for OD budget has been committed following the RfA signature, the Commission may use triggers to launch the start of an action whenever applicable. The maximum available budget is defined in the SC as a provision.

In most of the cases, the RFA under the OD budget concerns the ordering of quantified services such as trainings, meetings, etc. In these cases, no RfE is needed prior to issuing the RFA.

3.1.3 Quoted Times & Means (QTM)

The QTM budget is to be committed exclusively via the use of the RfE/RfA procedure. The RfE is always to be used prior to issuing an RfA, since the QTM sub-tasks have to be defined prior to their ordering. By definition, an RfA under "QTM" budget has always a financial impact. The maximum available budget is defined in the SC as a provision. Normally, the RFA under QTM budget is issued for ordering effort-related services (that is, Man-days or Function Points) such as production of specifications, S/W development, etc).

3.1.4 Times and Means (T&M)

This provision is to be ordered via the RfE/RfA procedure or by a trigger. The Commission request describes the activities to be performed, the staff profiles to be used and, if applicable, the results to be produced in terms of artefacts. The reply from the contractor must confirm the request.

The services are accepted via the MPR.

3.1.5 IT Equipment (P&I)

IT equipment may be purchased directly via the FP budget of the SC and/or a provision for IT equipment (hardware and software) may be included in the SC. In the latter case, the budget is used by issuing RfEs/RfAs (as for Provision for on-demand work).

3.1.6 Travel And Subsistence Costs (T&S)

Services to be performed can imply travel and subsistence costs. If justified, the related costs are reimbursed against supply of the required proof as described by the standard annex on reimbursement of travel and subsistence expenses to be part of each SC. When the Commission requests an event implying travel and subsistence costs, it should communicate to the contractor the location, the number of persons concerned and the duration of the mission.

Both Commission and the contractor should monitor the budget for Travel & Subsistence costs. The Specific Contract should mention that the contractor has the responsibility to send a warning (by e-mail) to Commission as soon as 75% of the budget is consumed so that contractual arrangements can be reviewed in the context of the remaining needs to be covered.

3.2 Overall management

Refer to section 4.1 for more information on the team structure requirements.

The overall management team will deliver all required services as defined in WP.0. The cost will be covered by a monthly Fixed Price (refer to PE2). This part of the overall team is delivering services which are crucial to the correct functioning of all staff and to the quality delivery of all requested services.

The governance used (including methodologies, standards, tools, communication, decision, escalation and information processes) in this context will be described in the FQP linked to this Framework Contract (See WP.0.1).

3.3 Architecture and Strategy

Refer to section 4.1 for more information on the team structure requirements.

The required services are to be delivered based on the estimates and by using the man-day prices of the applicable staff profiles (refer to PE8).

The required services as described in WP.4.1, WP.4.2, WP.4.3, WP.4.4 and WP.4.7 can be ordered by DG TAXUD according to the following budget provisions: FP, QTM or T&M.

The required services as described in WP.4.5 will be ordered according to the QTM budget provision.

The staff required to deliver the services as described in WP.4.6 are integrated in the IT projects and support team (refer to section 4.1.6). Refer to section 3.5.3 for the related costing structure.

3.4 Business Analysis and Modelling

Refer to section 4.1 for more information on the team structure requirements.

The required services as described in WP.5 are to be delivered based on the estimates and by using the man-day prices of the applicable staff profiles (refer to PE9). The services can be ordered according to the FP and QTM budget provisions.

3.5   IT projects and support

Refer to section 4.1 for more information on the team structure requirements.

DG TAXUD is managing IT projects which are of different nature and which have a different cost structure:

- New IT projects consist of building new IT systems or applications. These projects can be subject to software development or not. The latter is the case when the Member States are fully responsible for the software development, its deployment and operation follow-up. Existing IT systems such as NCTS, ECS and ICS can be taken as examples. For these kinds of projects DG TAXUD is responsible to produce the required common specifications, including conformance test specifications. These services will be ordered based on the estimates of the contractor and by using the man-day prices of the applicable staff profiles. The QTM budget provision is the most commonly used budget provision for these kinds of activities;

- IT maintenance projects consist of the implementation of functional or technical evolutions of the existing IT systems and applications.

IT maintenance interventions are not considered as planned projects but as maintenance activities triggered by unplanned functional, technical or operational needs.

Furthermore, The IT projects and support team will have to manage the support services. The activities to manage are of a different nature than managing IT projects but require a solid knowledge of the various IT aspects to support an operational excellence, to guarantee a fluid transition and to support the internal team in an effective way.

The above is elaborated into more detail in the following section by describing the 'Software development categories' mechanism which will be applicable to all IT projects and the different applicable costing structures. These costing structures are split into:

- New IT projects costing structure;

- IT management and architects costing structure;

- IT maintenance projects costing structure;

- IT maintenance interventions costing structure;

- IT support costing structure.

3.5.1   Software development categories

3.5.1.1   The productivity matrix of software development

DG TAXUD has defined a productivity matrix that classifies software development activities into 9 different categories, based on functional size and complexity.
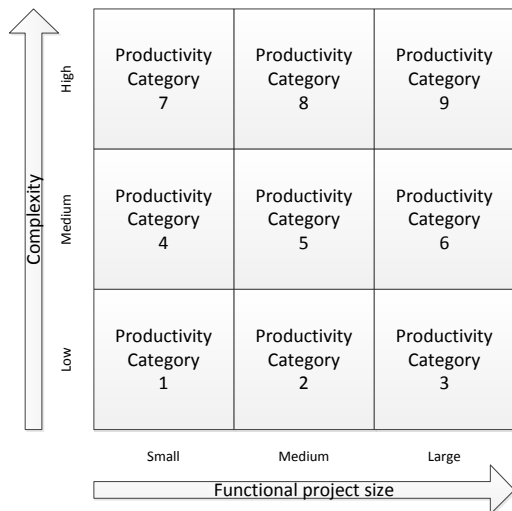
Figure 2 – Productivity matrix

Please refer to 'Software development Categories Customs Central IT Applications [R017]' for more information on the method that DG TAXUD applied to classify the existing IT applications according to this software development model.

The functional project size (X-axis) is determined by the number of function points (IFP) counted based on the IFPUG FSM methodology and the software developments are classified according to the following categories:

- small   0-500
- medium   500-2000
- large   2000+

The complexity (Y-axis) is based on the following characteristics:

- Legacy
- Interoperability
- Business process continuity
- Design for maintainability
- Security
- Reliability
- Portability
- Defect density
- Platforms
- Performance
- Experience of the team

3.5.1.2   Increase of productivity for IT maintenance project activities

The tenderer must propose in its offer an evolution of the productivity rate related to the IFP price applicable to IT maintenance projects activities. This must be the consequence of maintaining a stable team with an increased experience and knowledge of the customs IT applications resulting in an increased productivity during the contract lifecycle for each category. The tenderer will provide productivity rates per year to demonstrate this.

3.5.1.3   Category 10

A 10th category has been added for new IT projects or IT maintenance projects for which software development is not applicable or which cannot be classified into one of the 9 productivity categories. For these IT projects or IT maintenance projects the activities will be ordered based on the estimates and by using the man-day prices of the applicable staff profiles (refer to PE12 and PE13).

At the time of writing this Invitation To Tender the following existing CIs are classified in this category 10:

- New Computerised transit System (NCTS)
- Export Control System (ECS)
- Import Control System (ICS)
- Standard SPEED Test Application (SSTA)
- HTTP Bridge (software component of the TATAF framework)
- SPEED2 platform

3.5.1.4 Change of productivity category

The list of existing IT applications and the association to its productivity category is established for its initial application by DG TAXUD (refer to 'Annex II.A Terms of Reference, section 6.1 Portfolio Overview'). During the takeover the contractor will validate the list by calculating the functional size of the application and by determining its complexity following the complexity questionnaire (refer to 'TAXUD IFP calculator application [R006]').

The agreed list will be applicable for the complete duration of the Specific Contract in which the applicable services are to be performed.

If a given IT application changes from productivity category due to important evolutions (becomes more complex or less complex) or is to be removed from the list this will only become applicable at the next Specific Contract in which applicable services are to be performed.

3.5.2 New IT projects costing structure

The contents and size of all activities to be performed for a new IT project are per definition not known at the start.

The inception phase of the new project will be managed based on the estimates and by using the man-day prices of the applicable staff profiles (refer to PE12 and PE13). The result of the inception phase must provide enough information to DG TAXUD to put the new IT project to be developed in one of the software development categories (estimate of IFP and complexity) provisionally or to put it in 'category 10' (refer to section 3.5.1.3).

3.5.2.1 New IT projects not based on IFP

In case the new IT project is put in 'category 10' all required activities as described in WP.6 and WP.7 are to be delivered based on the estimates and by using the man-day prices of the applicable staff profiles (refer to PE12 and PE13).

The services can be ordered according to the FP, QTM or OD budget provisions.

3.5.2.2 New IT projects based on IFP

In case the new IT project is put in one of the 9 software development categories according to the productivity matrix described in section 3.5.1.1 (estimate of IFP and complexity) the following approach is followed:

- Following the project productivity table below, for which the tenderer must provide the percentages in the price table, and the estimated number of IFP a provisional global project price will be calculated based on the applicable IFP and average profile prices.

- After the inception phase, the subsequent activities will be ordered according to the applicable methodology. At the time of writing this Invitation To Tender new IT projects are developed according to processes and procedures as described in the current version of the TEMPO methodology. For a description of the current applicable methods refer to the relevant TEMPO documents through the URL specified in the Terms Of Reference 'section 0.5 References'. The provisional global project price will be used to cover the cost of the ordered activities.

- Once all information is available to determine the definitive number of IFP and the complexity, the new IT project will be put in another software development category (based on number of IFP and complexity) or stay in the category where it was placed provisionally. Following the number of IFP and the percentages of the project productivity table the exact project price is determined. For the remaining activities to be ordered, including the last payment based on the acceptance of the delivered software, the exact project price will be used to cover the cost of the ordered activities.

The following project productivity table is part of the sheet "new IT projects" of the price table and must be filled out by the tenderer.

IT project lifecycle main activity	Productivity rate expressed in percentage per main activity per software development category								
	C1	C2	C3	C4	C5	C6	C7	C8	C9
Project management									
IT requirements									
IT system/application system modelling									
IT analysis									
IT design									
Programming/development									
Testing									
Total IT project scope	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

The basis of the total project price calculation is the IFP productivity rate (expressed in man-days) which is to be provided by the tenderer in the price table, sheet "new IT projects". The number of IFP counted will be converted to man-days according to this productivity rate and will cover the programming/development and testing activities. The other project main activities are consequently calculated applying the following formula: (number of man-days for programming/development+testing)/(%programming/development+testing)*(%project main activity).

Each and every result in man-days will then be multiplied with the average daily price per project main activity which is to be provided by the tenderer in the price table.

The percentages of the project productivity table can be subject to changes due to an IT transformation (refer to section 8) or important changes in the applicable methodology. Once approved by DG TAXUD, the change of the percentages will lead to a change of the Framework Contract.

3.5.3 IT management and architects costing structure

The IT management and support architects cost will be covered by a monthly Fixed Price (refer to PE11).

The following staff profiles are part of this costing structure:

IT manager

The IT manager has the overall responsibility of all IT project and support activities. The cost will be based on the daily price of the applicable staff profile.

IT category owner

The IT category owner is managing part of the IT systems and applications portfolio and is responsible for the IT maintenance and support activities of the category assigned to him. At the time of writing of the Invitation To Tender the following IT categories are applicable:

- Movement systems and supporting applications

- Internal applications

- Risk analysis and control applications

- Internet applications

- Economic Operators applications

- Tariff and classification applications

- SPEED2

Refer to the Terms of Reference for the complete list of CIs which are part of each and every category. Please note that the 'TATAF' category is to be managed by the support architects.

The Commission will determine, at each and every Specific Contract for IT management and support architects, the number of IT category owners that will constitute the monthly Fixed Price based on the daily price of the applicable staff profile.

Support architects

The support architects being part of the IT projects and support team will deliver the services as described in WP.4.6. Amongst other activities, they will act as category owner of the TATAF framework and its successor(s). This framework is the foundation of most of the existing IT applications.

The Commission will determine, at each and every Specific Contract for IT management and support architects, the number of architects that will constitute the monthly Fixed Price based on the daily price of the applicable staff profile.

3.5.4   IT maintenance projects costing structure

IT maintenance projects are triggered by the approval of a set of Change Requests by the competent Change Advisory Board(s). These projects must be managed by the IT Competence Centre and more specifically by the IT manager and the category owners (see above). The required activities can be covered by (1) IFP prices or (2) based on the estimates and by using the man-day prices of the applicable staff profiles (refer to PE12 and PE13) or (3) a combination of (1) and (2).

The IT maintenance project activities are covered by the relevant IFP prices when the IT system/application to which the maintenance activities apply is classified in one of the 9 software development categories according to the productivity matrix described in section 3.5.1.1 and the required changes can be counted in IFP.

The required activities can be ordered according to the FP, QTM or OD budget Type provisions.

3.5.5   IT maintenance interventions costing structure

IT maintenance interventions are not considered as projects but can be triggered due to (list indicative and non-exhaustive)

- A minor but urgent functional enhancement;

- An urgent data requirement implying a data patch for the database;

- An urgent change of a functional or technical mechanism determined as the root cause of a problem, etc.

As indicated in the list above most of the ordered maintenance interventions will be of the nature 'urgent' and are by definition not planned well in advance.

The Times and Means (T&M) budget Type will be used to cover the required activities applying the man-day prices of the applicable staff profiles (refer to PE12 and PE13).

3.5.6 IT support costing structure

The IT support services are of a Continuous or On Demand nature. Please refer to 3.6.12.1 (Continuous support services) and section 3.6.12.2 (On Demand support services) for more details on the specific price elements.

Although the support services can be delivered by staff of the different sub-teams, the IT Competence Centre team and IT integration team will be the main contributors for these services. The following specifies what price elements are applicable to these teams.

IT Competence centre team

The IT Competence Centre team will manage mainly continuous support services which will be covered in terms of cost by the following elements. These PEs are quantity based with a guaranteed volume for a given Specific Contract.

- PE15 will cover specifications and software incident management;

- PE16 will cover Requests for Information management;

- PE17 will cover problem management;

- PE18 will cover change management;

- PE19 will cover the repair of specifications defects;

- PE20 will cover the repair of software defects.

IT integration team

The IT integration team is performing other continuous support activities which will be covered in terms of cost by the following elements:

- PE21 will cover configuration management with a monthly Fixed Price;

- PE22 will cover release management with a price per software release to manage;

- PE23 will cover the set up, installation, operation and maintenance of the IT Infrastructure and Tools at the DG TAXUD Data Centre with a monthly Fixed Price.

Furthermore, the applicable staff can be requested to deliver On Demand support services such as specific service transition and operational support (refer to PE24).

3.6 Price list elements

The Annex III - Price table consists of 6 sheets:

- **"CUST-DEV3"** is the main sheet listing all the services foreseen in the scope of this Invitation To Tender. It contains price fields to be filled in by the tenderer (blue colour), fields that are calculated by a formula based on other price information in the Price Table (yellow colour) and fields for which the values (provisions or quantities) are fixed by DG TAXUD (orange colour).

- The "**Profiles**" sheet has to be filled out by the tenderer with the proposed man-day prices for each profile as defined in this Invitation To Tender (See section 4.2 for details on the staff profiles). The man-day prices proposed in this sheet will be used for evaluation of the price calculations on the "CUST-DEV3 services" sheet according to the indicated coefficients. The tenderer is requested to provide a **daily rate** for the staff profiles that could be requested to work either within the premises of the Commission (i.e. **intra-muros**) or from the CUST-DEV3 contractor's own premises (i.e. **extra-muros**). Work performed during extended working hours as described in WP.8.8.2 will be charged taking into account the **multiplying factor** linked to the daily rate of the profiles concerned as defined in the pricing model.

- The **"TO and HO prices"** sheet has to be filled out by the tenderer with the proposed take over and hand over price per software development category. The category prices in this sheet will be used for evaluation of the price calculations on the "CUST-DEV3 services" sheet according to the indicated number of applications.

- The **"IFPUG prices for IT maintenance"** sheet has to be filled out by the tenderer for each and every software development category with the proposed average man-day price and the proposed productivity rate for each and every year of the Framework Contract. The product of (average man-day price*proposed productivity rate) in this sheet will be used for evaluation of the price calculations on the "CUST-DEV3 services" sheet according to the indicated number of IFPUG units.

- The **"new IT projects"** sheet has to be filled out by the tenderer with

  o for each and every IT project lifecycle main activity the average daily rate per software development category;

  o for the 'programming/development' and 'testing' IT project lifecycle main activity the productivity rate expressed in number of man-days per IFP per software development category. Please note that these productivity rates can be different than those filled out for the "IFPUG prices for IT maintenance" sheet;

  o for each and every IT project lifecycle main activity the productivity rate expressed in percentage per main activity per software development category.

- The "**Shipping costs**" sheet has to be filled out by the tenderer with the proposed prices of shipping of hardware (see details of PE33 in section 3.6.12.2.13.

The tenderer is requested to fill in the pricing model with unit prices. For the **evaluation** of the offers, the unit prices are multiplied with the coefficients indicated in the pricing model. The tenderers' attention is drawn to the fact that these coefficients are applied only and solely during the financial evaluation of the tenders. These figures – however they are based on the estimation of the expected workload – do not constitute any commitment or limitation from the part of the Commission regarding budgeted or ordered quantities of the units of the respective pricing elements. Information about volumetric data can be found in 'Annex II.A - Terms of Reference, section 9 IT statistics'.

⚠ The price list follows an **all-inclusive approach** regarding the services included in the price. The proposed prices are to cover all activities that are related to the given (sub) Work Package, unless they are specifically excluded by the Commission.

All price elements are linked to Work Packages. It is to be understood that the price proposed for each pricing element contains not only the price of the activities described in the referenced Work Packages but also the activities described in all sub-Work Packages and the delivery of all the Deliverables and the provision of all Services linked to the given (sub) Work Package, unless it is described differently in the price element descriptions below. These Deliverables and Services are listed in section 2.3.8.

3.6.1   PE1 - Production of all the initial deliverables

This price element covers the price for the production of the FQP (DLV.0.1-1) - including its annexes as the External Processes, the Service catalogue (DLV.0.13-2), the Security plan (DLV.0.14.1-2), and the infrastructure and tools baseline (DLV.8.4.1-2). The contractor will have to take over the existing FQP, adapt it to the new requirements and to generate the CUST-DEV3 specific version from the original all-inclusive version as described in WP.0.1.

The related Work Packages are: WP.0.1; WP.0.13.1; WP.0.14.1; WP.8.4.1.1.

3.6.2   PE2 – Overall Management

This price element is a monthly Fixed Price and covers the costs of the overall management services to be delivered. This part of the overall team is delivering services which are crucial to the correct functioning of all staff and to the quality delivery of all requested services.

The governance used (including methodologies, standards, tools, communication, decision, escalation and information processes) in this context will be described in the FQP linked to this Framework Contract (See WP.0.1).

Refer to section 4.1 for more information on the team structure requirements.

3.6.3   PE3 - PE4 - Take-over

The take-over price is composed of 2 price elements:

1. Price Element 3 - overall take-over

This price element is a one-off Fixed Price and covers all take-over activities (refer to WP.2 and WP.2.1) except the take-over of the IT central applications which is covered by PE4.

2. Price Element 4 – take-over of IT central applications

This price element is a one-off Fixed Price and covers all activities to take over all IT central applications (refer to WP.2.2). The tenderer is requested to determine a price per category of IT central application. Refer to 3.5.1 for more info on the IT central application categories.

The tenderer is reminded that the training sessions to be attended and to be given by DG TAXUD or by a stakeholder representing DG TAXUD (the incumbent contractor, the QA contractor, the ITSM2 contractors, etc.) are not be included in the take-over price but will be covered under WP.8.6.2.

The tenderer is reminded that failure to take over on time is linked to SQI22.

3.6.4   PE5 - PE6 - PE7 - Hand-over

The hand-over price is composed of 3 price elements:

1. Price Element 5 - overall hand-over

This price element is a one-off Fixed Price and covers all hand-over activities (refer to WP.3.1) except the hand-over of the IT central applications which is covered by PE6.

2. Price Element 6 - hand-over of IT central applications

This price element is a one-off Fixed Price and covers all activities to hand over all IT central applications (refer to WP.3.2). The tenderer is requested to determine a price per category of IT central application. Refer to 3.5.1 for more info on the IT central application categories.

3. Price Element 7 – after hand-over support

This price element covers all services/deliverables as described in Work Package WP.3.3. The average of all profile prices is calculated to be taken into account for the evaluation of the tenders. The activities will be ordered based on the estimate and by using the man-day prices of the "Profiles" sheet of the Price table. The weighting used for the average calculation is only indicative. The actual composition of the profiles ordered during the implementation of the contract may be different

The tenderer is reminded that the training sessions to be given are not be included in the hand-over price but will covered under WP.8.6.2.

The tenderers is reminded that failure to pass on the information and knowledge to the future new contractor will result in non-payment of the management services (PE2) of the contractor during the Hand-over period.

3.6.5   PE8 - Architecture and strategy

This price element covers all services/deliverables described under WP.4.1, WP.4.2, WP.4.3, WP.4.4, WP.4.5 and WP.4.7

The weighted average of the applicable profile prices is specified in the "Profiles" sheet of the Annex III - Price table and used accordingly in the calculation of the overall price to be taken into account for the evaluation of the tenders. The weighting used for the average calculation is only indicative. The actual composition of the profiles ordered during the implementation of the contract may be different.

The activities will be ordered based on the estimate and by using the man-day prices of the "Profiles" sheet of the Price table.

All meetings held by the CUST-DEV3 contractor with the Commission for the purpose of delivering WP.4 deliverables are considered as part of the delivery work.

3.6.6   PE9 - Business analysis and modelling

This price element covers all services/deliverables described under WP.5.

The weighted average of the applicable profile prices is specified in the "Profiles" sheet of the Annex III - Price table and used accordingly in the calculation of the overall price to be taken into account for the evaluation of the tenders. The weighting used for the average calculation is only indicative. The actual composition of the profiles ordered during the implementation of the contract may be different.

The activities will be ordered based on the estimate and by using the man-day prices of the "Profiles" sheet of the Price table.

All meetings held by the CUST-DEV3 contractor with the Commission for the purpose of delivering WP.5 deliverables are considered as part of the delivery work.

3.6.7   PE10 – IT new projects

This price element is a Fixed Price element which is determined in 2 steps:

1. After the inception phase of a new project, the Commission will be provided by the Cust-DEV3 contractor with all information to be able to put the IT system/application to be developed in a provisional software development category with an estimated number of IFP. This will result in a provisional project price;

2. The exact project price is established when the definitive software development category is decided and the number of IPF points is determined.

3.6.8   PE11 – IT management and support architects

This price element is a monthly Fixed Price and covers the costs of the IT management and support architects.

The IT management staff is managing activities as described under WP.6, WP.7 and WP.8. The support architects are managing the activities as described under WP.4.6.

Refer to section 3.5.3 for more information on the IT management and architects costing structure and to section 4.1 for more information on the team structure requirements.

⚠ All meetings held by the CUST-DEV3 contractor with the Commission for the purpose of delivering these services are considered as part of the delivery work.

3.6.9   PE12 - IT analysis and modelling

This price element covers all services/deliverables described under WP.6.

The weighted average of the applicable profile prices is specified in the "Profiles" sheet of the Annex III - Price table and used accordingly in the calculation of the overall price to be taken into account for the evaluation of the tenders. The weighting used for the average calculation is only indicative. The actual composition of the profiles ordered during the implementation of the contract may be different.

The activities will be ordered based on the estimate and by using the man-day prices of the "Profiles" sheet of the Price table.

⚠ All meetings held by the CUST-DEV3 contractor with the Commission for the purpose of delivering WP.6 deliverables are considered as part of the delivery work.

3.6.10   PE13 - IT build, integrate and test based on man-day profile prices

This price element covers all services/deliverables described in WP.7 but covers only the activities which cannot be counted in IFP.

The weighted average of the applicable profile prices is specified in the "Profiles" sheet of the Annex III - Price table and used accordingly in the calculation of the overall price to be taken into account for the evaluation of the tenders. The weighting used for the average calculation is only indicative. The actual composition of the profiles ordered during the implementation of the contract may be different.

The activities will be ordered based on the estimate and by using the man-day prices of the "Profiles" sheet of the Price table.

⚠ All meetings held by the CUST-DEV3 contractor with the Commission for the purpose of delivering WP.7 deliverables are considered as part of the delivery work.

3.6.11   PE14 - IT maintenance projects based on IFP prices

This price element is all-inclusive for all services/deliverables described in WP.6 and WP.7 but covers only the activities which can be counted in IFP. This means that the price per IFP will not only cover the programming and testing activities (WP.7) but as well the update of all existing specifications (WP.6). All-inclusive means as well that all activities must be covered to produce the new release to be delivered, including all tests which are needed to guarantee the required quality, even if this means the full execution of the existing test plans.

The tenderer will provide for each software development category (refer to section 3.5.1) a fixed price per IFP, based on an average productivity in man-days per IFP and an average man-day rate (mix of the rates of the staff that is necessary to deliver the required services). All WP.6 and WP.7 activities subject to IFP counting will be automatically linked to a given software development category and consequently to its related IFP price (meaning all-inclusive price element).

3.6.12   Support services

The support services are covering a wide range of services and will be ordered via one or several Specific Contracts. These services are to be setup such that they can be ordered by DG TAXUD to provide the services in a "continuous" mode or "on demand".

3.6.12.1 Continuous support services

These services must be always available and are crucial to the overall correct functioning of the IT services for which DG TAXUD is responsible for.

Price elements under "Continuous services" target to acquire a certain capacity from the contractor to provide the service of the day-to-day activities whilst being able to level out peak activities.

The Commission will estimate, at each Specific Contract for continuous services, the volume of price elements PE15, PE16, PE17, PE18, PE19, PE20, PE22 (i.e. the number of quantities of the related price elements) to include in the yearly Specific Contracts. The resulting price is due by the Commission even if the ordered quantities are over-consumed up to 10%. Should however an over-consumption of a price element of more than 10% occur, DG TAXUD will issue an RfA covering the additional anticipated quantity of this price element until the end of the current continuous services' Specific Contract. In this case, only the additional quantity effectively consumed at the end of the related continuous services' Specific Contract, will be paid on top of the initial fixed price amount included in the Specific Contract.

The consumption of price elements is to be monitored by the CUST-DEV3 contractor and to be reported on a regular basis (see WP.0.7). The consumption of the quantities is therefore subject to revision and consequently acceptance or rejection by the Commission. Only the consumption accepted by the Commission is considered as actual consumption. The reporting also allows assessing the volume of continuous services needed for subsequent continuous services Specific Contracts.

The other price elements being part of the continuous support services are PE21, PE23 and PE35 which are monthly Fixed Price elements.

3.6.12.1.1 *PE15 – Specifications and software Incident management*

This price element covers all services/deliverables described under WP.8.1.1.1. and is based on a price per incident.

3.6.12.1.2 *PE16 – Requests for Information management*

This price element covers all services/deliverables described under WP.8.1.1.2. and is based on a price per Request for Information.

3.6.12.1.3 *PE17 – Problem management*

This price element covers all services/deliverables described under WP.8.1.2. and is based on a price per problem.

3.6.12.1.4 *PE18 – Change management*

This price element covers all services/deliverables described under WP.8.1.3. and is based on a price per Request for Change.

3.6.12.1.5 *PE19 – Repair specifications defects*

This price element covers all services/deliverables described under WP.8.1.4.1. and is based on a price per specification defect.

⚠ The tenderer is reminded of the **guarantee period** as indicated in Annex X.A - Part I & II – Special Conditions & General Conditions, article II.1.2 – (b) during which corrective maintenance will be applicable for the specifications (WP.8.1.4.1) as well as to the development of software (WP.8.1.4.2).

3.6.12.1.6 *PE20 – Repair software defects*

This price element covers all services/deliverables described under WP.8.1.4.2. and WP.7.5.4 and is based on a price per software defect.

⚠ The tenderer is reminded of the **guarantee period** as indicated in Annex X.A - Part I & II – Special Conditions & General Conditions, article II.1.2 – (b) during which corrective maintenance will be applicable for the specifications (WP.8.1.4.1) as well as to the development of software (WP.8.1.4.2).

3.6.12.1.7 *PE21 – configuration management*

This price element covers all services/deliverables described under WP.8.2.

3.6.12.1.8   PE22 – Manage a given release

This price element covers all services/deliverables described under WP.8.3 and WP.8.4.1.

3.6.12.1.9   PE23 – setup, install, operate and maintain the IT Infrastructure and Tools at the DG TAXUD Data Centre

This price element covers all services/deliverables described under WP.8.4.1.

3.6.12.1.10   PE35 – call availability outside working hours

This price element is to cover the services described under WP.8.8.1. It covers the availability of assigned staff for a given critical IT system/application to be on call outside working hours.

3.6.12.2   On Demand support services

These support services will be triggered by DG TAXUD whenever required.

3.6.12.2.1   PE24 – Service transition and operational support

This price element covers all services/deliverables described under WP.8.5.1.

3.6.12.2.2   PE25 – Conformance testing support

This price element covers all services/deliverables described under WP.8.5.2.

3.6.12.2.3   PE26 – Support to the National Administrations

This price element covers all services/deliverables described under WP.8.5.3.

3.6.12.2.4   PE27 – Technical review of the deliverables of other contractors

This price element covers all services/deliverables described under WP.8.5.4.

3.6.12.2.5   PE28 – Translations

This price element covers all services/deliverables as described in Work Package WP.8.5.5. The unit price is the human translation of 1000 characters without spaces.

3.6.12.2.6   PE29 - Specific support on ARIS and/other modelling tools

This price element covers all services/deliverables as described in Work Package 8.5.6. The unit price is ½ day/person.

3.6.12.2.7   PE30 – National Administrations working group meetings and their related subgroups – performance

This price element covers the preparation and performance of a presentation for a working group meeting. The smallest unit covers a one day working group meeting. The related Work Package is WP.8.6.1.1.

3.6.12.2.8   PE31 – Training, workshop, demonstration – performance

This element covers the preparation, organisation and performance of a training, workshop or demonstration, including reporting and related planning. The smallest unit that can be ordered is ½ day by topic, person of trainer, audience. The related Work Packages are WP.8.6.2.1 and WP.8.6.2.4.

Repetitive performance of the same material(s) does not trigger multiple payments. Two training materials are considered to be identical if the difference between the substantial part of the two materials is not more than 20%.

3.6.12.2.9   PE32 – Training, workshop, demonstration – attendance

This price element covers the attendance of a training, workshop or demonstration, including reporting. The smallest unit that can be ordered is ½ day/person. The related Work Package is WP.8.6.2.2.

3.6.12.2.10 PE33 – Training, workshop, demonstration – hosting facilities and Infrastructure

This price element covers all services/deliverables as described in Work Package WP.8.6.2.3. The smallest unit that can be ordered is ½ day.

3.6.12.2.11 PE34 – Missions

This price element covers all services/deliverables as described in Work Package WP.8.6.3. The price is fixed according to the proposal, regardless of the actual profile attending the mission. Missions have to be ordered and approved by the Commission, organised by the CUST-DEV3 contractor. The smallest unit that can be ordered is 1day/person.

3.6.12.2.12 PE36 – Extended time coverage – ad hoc

This price element covers all services/deliverables as described in Work Package WP.8.8.2. The weighted average of all profile prices modified by the multiplication factor is to be taken into account for the evaluation of the tenders. The activities will be ordered by using the man-day prices of the "Profiles" sheet of the Price table, taking into account the proposed multiplication factor for activities outside normal working hours. The weighting used for the average calculation is only indicative. The actual composition of the profiles ordered during the implementation of the contract may be different.

3.6.12.2.13 PE37 – Shipping of hardware equipment

This price element covers the shipping of hardware purchased under Work Package WP.8.4.3. The cost for **shipping** the IT equipment using a specialised IT transporter offering full Insurance will be covered by RfA. The shipping costs are to be expressed by the tenderer as a matrix of prices in sheet "Shipping costs" of the Price table. Prices are to be defined based on insured value and weight for a shipment to the DG TAXUD datacentre.

The average of these prices will be used in the evaluation of the tenders. The actual price of ordering the service will be based on the value and the weight of the package as it is indicated in the "Shipping costs" sheet of the Price table.

3.6.13 PE38 - Other deliverables and services in the scope of the framework contract

The price element covers all services/deliverables as described in Work Package WP.10. The value is automatically calculated as 10% of the subtotal of all other price elements listed above.

3.6.14 Price element block "Reserves"

The price elements in this block are defined by DG TAXUD as provisions and they are present in the price list in order to provide the tenderers with information about the overall volume. It must be noted that these figures cannot be considered as a commitment of DG TAXUD to engage these provisions at a given point in time.

3.6.14.1 R1 – Reserve set by the Commission for hardware and COTS software acquisitions for development and test environments

This reserve is expressed in 2 parts:

1. The budgetary provision set by the Commission;

2. The uplift percentage to be applied to the budgetary provision. This is to be filled out by the tenderer. The uplift represents the margin the contractor applies to its purchase prices covering all internal expenses linked to the purchase which are described under WP.8.4.3. These purchase prices are to be proven by invoices from the vendors. DG TAXUD reserves the right to verify/audit these purchase prices, proof of purchases.

Development equipment delivered initially to the CUST-DEV3 premises is expected to be moved later to the TAXUD datacentre - the price of the move is not included in this price element.

3.6.14.2 R2 – Reserve set by the Commission to cover important IT transformations

This price element covers all services/deliverables described under WP.8.7.

3.6.14.3 R3 – Reserve set by the Commission for travel and subsistence costs

All meetings/activities at the Commission's premises (Brussels and Luxembourg) and/or at any other contractor's premises within a distance of ≤ 50 km of the Commission's premises are to be included in the quoted prices for services, **including** the travel and subsistence costs.

All **"out of premises"** activities of the contractor, other than those addressed in the previous paragraph, are subject to reimbursement of travel and subsistence costs according to the rules specified in the Framework Contract. The Commission will allocate a budget provision to cover the travel and subsistence costs related to those activities. Therefore, those costs are not included in the quoted prices for services related to these activities.

4. Staff Requirements

4.1 Team Structure

The contractor has the responsibility to set up an adequate team organisation in order to:

- perform the activities and deliver the products and services in full compliance with the quality requirements;
- function as one team internally and externally; in case of consortium delivering services, by no means the fact shall be exposed operationally.
- guarantee a uniform approach in terms of methodology and technical implementation.

The team composition must ensure:

- the presence of an hierarchical structure in function of the size of the overall team and the different activities;
- a correct balance of concentration and distribution of the acquired knowledge;
- the availability of expert knowledge on the fundamental horizontal elements (architecture, delivery, etc.);
- the existence of a stable core team for continuous services.

The team structure in the figure below is not imposing an organisation into the lowest level of detail but does define the expected high level structure.
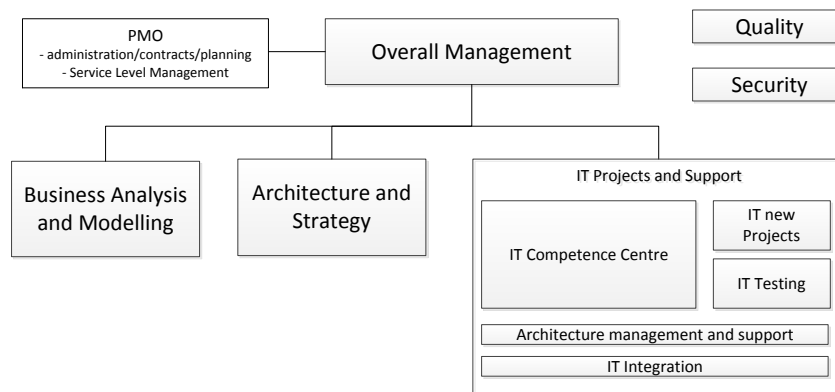
Figure 3 – Team structure

4.1.1 Overall management

This team component is the horizontal management layer and performs the following functions (list indicative and not exhaustive):

- Overall programme and contract management. The overall management team will take the responsibility for all services to be delivered by this framework contract. The team will set up a strong internal team which acts as a team internally and towards DG TAXUD and its stakeholders for this framework contract. It will furthermore apply effective risk management and improve the overall working of the team with continuous improvement proposals;

- Programme Management Office. The involved staff will manage all contractual, planning and Service Level activities. This part of the management team will manage all the 'input' of the

framework contract and all indicators required to follow up productivity and quality. It will act pro-actively in having day-to-day contacts with all parts of the overall team for all related aspects;

- Risk Management considering all services of the Framework Contract;

- Continuous Service Improvement linked to all services of the Framework Contract;

- Knowledge management. The involved staff must collect all important information for the framework contract or organize the activities in the different teams such that this is done at all levels. The use of the most adequate tools is recommended such that the gathered knowledge is available to the CUST-DEV3 internal team, DG TAXUD and its stakeholders for this framework contract and possible successors.

4.1.2   Quality

The quality staff must act independently from the CUST-DEV3 management. This team component performs the following functions (list indicative and not exhaustive):

- Quality assurance. The involved staff will maintain the FQP and the contractual OLA (refer to section 5.3.1 for more details on the OLA requirements) as the main quality specifications for this framework contract. It will furthermore setup internal required QA processes to guarantee an overall quality result;

- Quality Control. The involved staff will control at horizontal level if all quality processes, procedures and requirements are correctly implemented.

4.1.3   Security

The security staff must act independently from the CUST-DEV3 management. This team component performs the following functions (list indicative and not exhaustive):

- Security management. The involved staff must produce the required security plans, implement the security requirements and control that these are correctly followed by all teams;

4.1.4   Business Analysis and Modelling

This team component is supporting the DG TAXUD unit responsible for the customs processes and is at the forefront of the IT projects.

The involved staff will support DG TAXUD in its building of customs business cases, business process models in different levels of detail and validate its correct implementation in the related IT systems and applications.

Furthermore, the business consultants and business analyst modellers can act as consultants for the IT project teams in order to facilitate the correct preparation of the IT specifications on the basis of Business Specifications.

4.1.5   Architecture and Strategy

The different architecture activities which are described in WP.4 will be performed by different staff profiles and different teams.

The architecture and strategy team component will perform mainly the activities which are of customs enterprise level and strategic nature. These activities are mainly linked to (but not exclusively) the IT strategy for EU Customs, the IT Portfolio and Master Plan, the architecture framework and related methods, the enterprise architecture for EU Customs, the use of ARIS and other architectural tools.

The application and service architectures to be implemented can be designed from a conceptual viewpoint in this team but, once approved for implementation, will be further managed as a project under the responsibility of the IT project and support team.

The solution architects which will manage the different layers of implementation of the application and service architectures are a specific sub-team of the IT project and support team.

4.1.6   IT Projects and Support

This team component must include all staff functions and roles required to deliver IT artefacts on time and according to the required quality and to provide the required support services based on a solid knowledge.

The team is managed by the IT manager who is responsible for all IT development and support activities.

4.1.6.1   IT Competence Centre

The involved staff of this team component must have the required knowledge on all existing IT systems and applications and they are the main actors to implement all functional and technical evolutions and to support the business and operations services.

The staff must be organized according to a logical split of the total IT systems and applications portfolio. This split must result in the role of IT category owners with a further drill down to CI owners at the level of each and every IT system and application.

The team must have an in-depth knowledge of the IT applications from a functional and technical viewpoint, including the software source code.

The team must be organized such that it can react in a dynamic way to a variable workload. This means that if no evolutions are planned or no specific issues are outstanding for a given IT system or application the team must be organized such that the available staff can temporarily be switched to another part of the portfolio.

The team will ensure the follow-up of the incidents and the problems for the IT systems and applications in conformance and production according to the required level of criticality and priority. It will manage all Requests for Change, mainly by producing impact assessments and assisting DG TAXUD in all CABs to be organized.

The team will repair all defects for the IT systems and applications in conformance and production according to the required level of criticality and priority.

The IT category owners will act as IT project managers for all functional and technical evolutions of the existing IT systems and applications. They manage the development and testing lifecycle of these evolutions. The IT staff implementing functional and technical evolutions of the existing IT systems and applications will work under the responsibility of the category owners.

The relevant staff of the team can assist the Programme Management Office in producing proposals for Requests for Action.

4.1.6.2   Architecture management and support

As described in section 4.1.5 a certain number of solution architects are part of the IT projects and support team on a permanent basis. These solution architects will act as the guardians and the experts of the architectural solutions for the customs IT systems/applications.

The solution architects will have a perfect knowledge of the application and service architectures to be applied for the IT systems/applications. Furthermore, they will make sure that the IT systems/applications will function according to the performance and operational requirements.

Generally speaking, the architects act as consultants to the design and development staff and provide support in case of issues.

4.1.6.3   IT new projects

Specific IT project teams are to be set-up for complete new IT projects with a specific IT project manager and relevant team structure. According to the phase the project is in, the team will be staffed

with the appropriate profiles fit for purpose for the services to be delivered. The team is working under the overall responsibility of the IT manager.

At the end of the project, the CUST-DEV3 contractor must ensure that

- Part of the team will continue the required maintenance activities for the first 6 months after production date;

- An effective hand-over takes place to the IT Competence Centre team such that further support and maintenance activities are integrated into the standard processes.

4.1.6.4   IT testing

The IT test team(s) can be setup on a permanent or temporary basis. The latter can be applicable for complete new IT projects. According to the phase the project is in, the team will be staffed with the appropriate profiles fit for purpose for the test services to be delivered.

The test team(s) must act independent from the development team(s). Especially for the FAT execution of a full release or a patch they have to make an independent assessment of the quality of the software to be delivered to DG TAXUD.

The team(s) is/are working under the overall responsibility of the IT manager.

4.1.6.5   IT integration

The IT integration team is the glue for all IT systems and applications development and support activities.

The involved staff supports all development and testing lifecycles by managing the CUST-DEV3 development infrastructure and all test environments to be used by the CUST-DEV3 contractor. It manages the installation of all required tools. It will support especially the setup of an effective configuration management and train all relevant staff in using the tool(s) and related processes.

The team will manage all releases starting from integration testing at CUST-DEV3 level up to a correct service transition to the ITSM2 contractors. As such it will act as a central component between 3 stakeholders: the CUST-DEV3 development team(s), the CUST-DEV3 test team(s) and the ITSM2 contractors.

The staff will have a deep knowledge of all technical aspects of the IT systems and applications such that they can provide an effective support to the service transition. They are as well the first candidates to provide specific support for service transition and operations major issues.

The team is working under the overall responsibility of the IT manager.

4.2   Staff Profiles

The contractor is responsible for providing the staff in order to perform the activities and deliver the products and services defined in full compliance with the quality requirements in the current Technical Specifications.

Due to the dimension and complexity of the tasks, the team required will be composed of qualified personnel covering the following possible staff profiles:

#	Profile	Key Profile	Profile Code	Relevant Experience
1	Strategy Consultant		STC	10 years or more
2	Programme Manager	X	PM	10 years or more
3	Service Manager	X	SM	5 years or more
4	Quality Manager	X	QM	8 years or more

5	Quality Controller		QC	5 years or more
6	Security Manager	X	SECM	5 years or more
7	Business Consultant		BC	10 years or more
8	Business Analyst Modeller Senior	X	BAMS	5 years or more
9	Business Analyst Modeller Junior		BAMJ	3 years or more
10	Enterprise Architect	X	EA	10 years or more
11	Solution Architect Senior	X	SAS	8 years or more
12	Solution Architect Junior		SAJ	3 years or more
13	IT Manager	X	ITM	10 years or more
14	IT Category Owner	X	ITCO	5 years or more
15	IT Project Manager	X	ITPM	5 years or more
16	IT Analyst		ITAN	5 years or more
17	IT User Interface Designer		ITUID	5 years or more
18	IT Designer		ITDS	5 years or more
19	IT Developer		ITDEV	3 years or more
20	Integration Developer		EXPDEV	3 years or more
21	Test Manager	X	TSTM	8 years or more
22	Test Designer		TSTDS	5 years or more
23	Tester		TST	3 years or more
24	Integration Expert	X	INTE	5 years or more

Table 4: List of Staff Profiles

These profiles will also be used in the price list of this Invitation To Tender. Any additional profiles proposed by the tenderer will have to be mapped to the profiles listed above to support the proposed pricing model.

The contractor will have to staff according to the above-defined staff profiles and respecting the team structure described in section 4.1.

The contractor must include sufficient seniority in the team that will ensure the quality delivery of the services. This seniority is not only expressed in (number of years of) experience but also, above all, in terms of skills and capacity to lead the teams and to keep a broad knowledge and overview of all activities undertaken by the contractor.

DG TAXUD can –at any point in time– request the CVs of the assigned staff and/or verify minimal expertise requirement defined by profile. DG TAXUD reserves the right to request replacements of staff not in line with the present resource requirements.

⚠️ By bidding for this tender, the contractor commits to ensure full transparency to DG TAXUD regarding its staffing. The number of staff, names, location, qualifications, etc. must be communicated to DG TAXUD on a regular basis (as part of the MPR) and/or at specific request. DG TAXUD will fully respect the provision regarding data protection.

The contractor shall demonstrate for each person proposed in the team that his/her CV meets the specification(s) of the profile. For every profile for which CVs are submitted, a minimum professional experience[11] is required for the area linked to his profile as indicated in table 5 above.

This means, e.g., that the IT Project Managers for whom a CV is submitted must have at least 5 years of experience as project manager, even if they started their career as developers or in any other function. The same rule applies to the other profiles.

For all profiles, the contractor will ensure that all staff holds the relevant technical certification, corresponding to the assignment and to the required level of experience.

All profiles must have (or acquire within the first 8 weeks of their assignment) knowledge of TEMPO, ITIL, and RUP.

The contractor must ensure that technical expertise that is in line with DG TAXUD's technical development/operations environment is sufficiently available. Expertise with all OS and COTS used by DG TAXUD and the minimal requirements specified in the profile tables below is a must and shall be identified clearly in the proposed CVs.

In case of staff replacement of key profiles (refer to the list of staff profiles) , the contractor will inform the Commission at least two (2) months before hand and communicate the details of the new staff and evidence of his/her compliance with the role profile for which (s)he is proposed.

In case of staff replacement, it must be noted that the tenderer is required to provide a thorough Hand-over, at no extra cost for the Commission. Typically this could be done by providing a 10 working days unpaid overlap between the old and new resource. The team induction and team management is to be described in the FQP.

The contractor must ensure that his staff is fully aware of the Commission's and contractor's quality system, of the quality system of the project, of the contractual OLA in place (refer to section 5.3.1 for more details on the OLA requirements), of the security requirements of the project as well as of the goal, the context, the planning and the political importance of the service.

The artefacts delivered by the contractor shall not contain any personal data (company name, names of individuals, functions, etc.). For all artefacts not respecting this rule, the contractor shall provide, upon request of the Commission, an anonymized version free of charge.

Profile Description

For each of the profiles the following information regarding requirements is provided:

Profile :	*<<Profile Name>> (<<Profile Acronym>>)*
Overview	Overview description of the profile.
Nature of tasks	These are examples of the tasks that will be expected of a person proposed with the required profile in relation with the corresponding lot(s). This list is not exhaustive and is to be regarded as a good indication.

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[11] Professional experience means the number of years of relevant professional experience after the studies (secondary school and professional studies).

Knowledge and skills	A list of the <u>minimal</u> knowledge and skills that a person with this profile is expected to possess
Experience	This indicates the <u>minimum</u> <u>years</u> of experience that is required for the area of expertise.

⚠ The tasks defined in the profile descriptions are applicable to all components and associated systems plus all services and deliverables covered by this Framework Contract.

4.2.1   Strategy Consultant:

Profile :	Strategy Consultant (STC)
Overview	**Person able to define overall IT strategy, migration strategies and related strategic plans, provide strategic advice on product and service portfolio.**
Nature of tasks	Provide overall IT strategies, policies and technical advice.
	Provide strategic advice on overall architecture solutions, taking into account the current market trends, client needs or business policy goals and shaping them into project deliverables. This task is done in close collaboration with the System, Infrastructure and Security architects and with the business stakeholders.
	Provide the expertise and leadership necessary to help the Commission to achieve demonstrable improvements in the development and management of strategies related to the systems and services described in this Technical Annex.
	Provide IT strategy support to the Commission through Enterprise Architecture and portfolio management and policy and guidance analysis.
	Provide the Commission with extensive strategic advice, guidance and leadership for the successful selection, design, integration and deployment of new systems and services.
	Develop Business Cases (incl. Return on Investment and Cost/Benefit Analyses) to support strategic recommendations.
	Coordinate with all stakeholders involved in developments and deployments to plan, document and manage strategic phases of projects.
Knowledge and skills	Strong experience with developing strategic documents.
	Strong experience in the development of enterprise architecture and extensive knowledge and experience in the practical implementation of internationally recognised architecture frameworks and methods.
	Specific knowledge of the Customs and logistic management systems is necessary.
	Experience managing systems and development projects that cover big trans-national networks with string interoperability needs and strict security requirements.
	Ability to assess and document business processes and needs: including systems; work flows; staffing; and the economic, organisational or technical impact of each.
	Excellent interpersonal, verbal and written communication skills.

	Fundamental project planning and project management skills.
	Strong technical, analytical and business skills.
	Experience with gathering IT requirements for big trans-European projects.
	Strong knowledge of current technology innovations, including SOA, Cloud Computing, Master Data Management …
	Capability of working in an international/multicultural environment, rapid self-starting capability and experience in team working, understanding the needs, objectives and constraints of those in other disciplines and functions.
Experience	10 years or more is required for the area of expertise

4.2.2 Programme Manager

Profile :	**Programme Manager (PM)**
Overview	**Person able to manage an overall programme such as CUST-DEV3.**
Nature of tasks	Understand and implement correctly the contract requirements. This implies a capacity to absorb in a short period a vast amount of information and to create quickly an overall picture allowing to set-up an efficient management plan.
	Create, based on the contract requirements, an efficient and effective internal team. Make sure that the required staffs are compliant to the staff profiles and fit for purpose.
	Organise an effective resource capacity demand planning taking into account at least a forecast of 6 months.
	Create awareness of the business importance of the services to deliver throughout the whole internal organisation.
	Create and manage the required communication channels, internally and with the relevant stakeholders.
	Setup and manage an efficient PMO taking care of all planning, service level and administrative tasks.
	Validate, refine and improve the organisation and related aspects at regular intervals. Apply effective risk management at the levels of all services and take a pro-active attitude concerning important activities and milestones.
	Manage the services at the required level by applying efficient and effective service level monitoring.
Knowledge and skills	Leadership. The programme manager must demonstrate his competence, provide solutions and determine the way forward for the overall team. Communication and team building are key for the successful role of the programme manager.
	Personal and professional skills. He must have strong communication and relationship skills. He must have a solid IT background in the domain of complex information systems.
	He must be able to build a vision for the future based on his knowledge of similar programmes.
	Methodology and technology. He must have a good overall knowledge of business process management, enterprise architecture and IT project development and support.
	Ability to chair meetings and to give presentations.
	Ability to participate in multi-lingual meetings, good communication skills.

	Knowledge of customs processes and logistic chain processes in general are considered as an asset.
	Capability of working in an international/multicultural environment.
Experience	10 years or more is required for the area of expertise

4.2.3 Service Manager

Profile :	Service Manager (SM)
Overview	**Person able to ensure that the required services are delivered according to the quality plan (FQP) and according to quality levels agreed in the contractual Operation Level Agreement (OLA).**
Nature of tasks	Manage all services subject to service levels with activities such as statistical reporting, alerts, trend analysis, ….
	Overall quality follow-up and escalation towards the Commission of all service related activities and their related quality indicators.
	Coordination with all involved stakeholders for all service related activities.
	Coordination with the quality manager and quality controller for the contractual Operation Level Agreement (OLA) aspects linked to this Framework contract and reporting.
	Assistance and coordination with the other contractors for all delivery, transition and operational aspects.
Knowledge and skills	Ability to participate in meetings, good communicator.
	Good knowledge of the applicable quality plan and contractual OLAs.
	Proven experience in carrying out similar services.
	Proven experience in the usage of Service Management related tools (e.g. HP Service Centre)
	Proven experience of all ITIL Service Support/Service Delivery related activities (including ITIL V2 or V3 certification)
	Proven experience with quality procedures.
	Capability of working in an international/multicultural environment.
Experience	5 years or more is required for the area of expertise

4.2.4 Quality Manager

Profile :	Quality Manager (QM)
Overview	**Person responsible for promoting awareness within the team with regard to quality procedures and methodologies in place, set-up, maintenance and assessment of them through internal audits, and improvement of them through the development and implementation of continuous improvement programmes.**
Nature of tasks	Ensure that the delivery of services and/or products meets or exceeds customer expectations by ensuring that the required quality processes and procedures are in place and known by the all staff.
	Build and maintain the quality plans for building and maintenance of all systems, services and deliverables covered by this framework contract.

	Development and management of the CSIP process related to this Framework Contract.
	Responsible for the regular internal assessment and internal audits of all services provided by this Framework contract.
	Responsible to ensure alignment of all operational processes linked to this framework contract with the corresponding and related processes of the other contractors.
Knowledge and skills	High-level qualified person with relevant experience responsible for promoting awareness within the team with regard to quality procedures and methodologies in place, set up, maintenance and assessment of them through internal audits, and improvement of them through the development and implementation of continuous improvement programmes as well as the to provide assistance and support on service level agreements or other quality documents associated to the project.
	Quality assurance of ICT projects and capability of applying formal quality standards (ISO standards, guidelines and references of other organisations such as COBIT…).
	Proven experience in quality assurance and related methodologies such as PM (PMBOK, Prince2, RUP, ITIL, COBIT).
	Proven experience with quality procedures.
	Capability of working in an international/multicultural environment, rapid self-starting capability and experience in team working, understanding the needs, objectives and constraints of those in other disciplines and functions.
Experience	8 years or more is required for the area of expertise

4.2.5 Quality Controller

Profile :	Quality Controller (QC)
Overview	**Person responsible to control the correct implementation and execution of the quality processes and procedures.**
Nature of tasks	Assistance and support on the contractual OLA's or other quality procedures or documents associated with the systems and services in this Technical Annex.
	Assist quality manager during the regular internal assessment and internal audits of all services provided by this Framework contract.
Knowledge and skills	Quality assurance of ICT projects and capability of applying formal quality standards (ISO standards, guidelines and references of other organisations such as COBIT…).
	Experience in quality assurance and related methodologies such as PM (PMBOK, Prince2, RUP, ITIL, COBIT).
	Good knowledge of all quality procedures and quality plans linked to the Framework Contract.
Experience	5 years or more is required for the area of expertise

4.2.6 Security Manager

Profile :	Security Manager (SECM)
Overview	**Person responsible for promoting security within the team with regard to security procedures and methodologies in place, set-up, maintenance and**

	assessment of them through internal audits, and improvement of them through the development and implementation of continuous improvement programmes. The mission is to ensure that products integrate security requirements and that project-related information is managed securely. To comply with this mission it is required an in-depth knowledge of technical topics such as Network security, Identity and Access Management, web application security, web services security, Open Standard security, and an ability to validate the design of the related security components.
Nature of tasks	Provide high level security expertise regarding all security aspects related to the systems and services in this Technical Annex.
	Co-ordinate all security aspects related to the systems and services in this Technical Annex.
	Create, implement, maintain and continuously improve the required security plans.
	Integrate the security requirements from the TAXUD security policies in the execution of all applicable activities.
Knowledge and skills	Proven experience with Security standards (ISO/IEC 27001 & and 27005)
	Proven experience with Identity and Access Management, web application security, web services security and Open Standard security
	Good knowledge in securing information systems and prevent attacks.
	Good knowledge of the security aspects of services (authentication, authorization, …)
	Good knowledge of Communication protocols, firewalls, network security policies implementation and other security and antivirus tools.
	Good knowledge of tasks related to national security accreditation and security clearance.
	Good knowledge of TEMPO's security related documents
	Ability to give presentations and security related trainings to the internal team.
	Capability of working in an international/multicultural environment..
Experience	5 years or more is required for the area of expertise

4.2.7   Business Consultant

Profile :	Business Consultant (BC)
Overview	**High level qualified consultant for analysis of business policy and needs and design of Business architecture, definition of Business Services, impact analysis of policy initiatives, process design and Business Process Management advisor.**
Nature of tasks	Assist on the development of business architecture, design of business processes and assessment of their organisational or economic impact.
	Liaise with the enterprise and system architects to propose business – IT aligned solutions strategy and planning.
	Support on realisation of a semantic data model and data dictionaries, assess on alignment with International customs standards.
	Assess MS process divergences and analyse and propose solutions with

	minimal or acceptable impact. Design strategy for process and data harmonisation
Knowledge and skills	Strong knowledge and experience in EU Customs processes and business operations. Specific customs business knowledge. Strong experience in Business Process Management and assessment. Good experience in data modelling. Knowledge of the WCO data model.
Experience	10 years or more is required for the area of expertise

4.2.8   Business Analyst Modeller Senior

Profile :	Business Analyst Modeller Senior (BAMS)
Overview	**Senior consultant with experience in the use of modelling or design tools.**
Nature of tasks	Design and introduce models in a modelling tool based on predefined requirements or drafts. Provide input on low level detail design issues and patterns. Propose improvements on modelling methods and styles to improve readability and efficiency.
Knowledge and skills	Strong experience in the use of modelling and design tools in Business or IT projects (ARIS, EA, etc.). Extensive knowledge and experience in UML. Large experience in Business and/or IT system analysis. Knowledge and experience with customs processes and/or systems.
Experience	5 years or more is required for the area of expertise

4.2.9   Business Analyst Modeller Junior

Profile :	Business Analyst Modeller Junior (BAMJ)
Overview	**Junior consultant with experience in the use of modelling or design tools.**
Nature of tasks	Design and introduce models in a modelling tool based on predefined requirements or drafts. Provide input on low level detail design issues and patterns. Propose improvements on modelling methods and styles to improve readability and efficiency.
Knowledge and skills	Strong experience in the use of modelling and design tools in Business or IT

	projects (ARIS, EA, etc.).
	Extensive knowledge and experience in UML.
	Large experience in Business and/or IT system analysis.
	Knowledge and experience with customs processes and/or systems.
Experience	3 years or more is required for the area of expertise

4.2.10 Enterprise Architect

Profile :	**Enterprise Architect (EA)**
Overview	**High-level qualified person able to develop enterprise architecture in line with defined strategy; define, assess and coordinate architecture projects, design architecture building blocks; design and coordinate architecture implementation; align and integrate multiple architectures, layers and perspectives; advice on architecture frameworks and methods; define and measure architecture indicators (maturity, implementation, etc.); ensure interoperability; identify potential reuse; perform cost-benefit analyses; design Service Oriented Architecture; design and assess Identity and Access Management and Master Data Management solutions; coordinate the technical implementation; perform Business Analysis and contribute to the Functional, Technical, Security and Testing Specifications.**
Nature of tasks	Responsible for the enterprise architecture linked to the systems and services defined in the Technical annex.
	Review of the multiple architectures of the EU Customs and advice on organisational and technical actions towards their integration and coherence.
	Review of architecture of existing systems, design of component architecture and building blocks.
	Lead the definition, initiation and coordination of architecture projects and assess and measure their added value.
	Provide architectural advice on any activity or project
	Analysis of the integration of different information Systems and ensuring interoperability.
	Follow up and contribute to the data analysis, data modelling and advise on Master Data Management solutions (pivot models).
	Follow up and contribute to the Business Process analysis and management and advice on process implementation and automation solutions.
	Coordination of the design of the technical architectures and guide on the design and implementation of the SOA, MDM or other architecture methods.
	Interface between EU Customs (Member States and TAXUD) architects.
	Production of architecture documents. Contributes to the Business cases and Vision documents.
	Participation in bilateral meeting with Member States, technical working groups, progress meetings and meetings with the stakeholders and users.
	Contribution to the IT Strategy, portfolio management and master planning and its incorporation in the Enterprise Architecture.
	Understands and apply security policy, measures, current standards, practices,

	& technology.
Knowledge and skills	Top notch knowledge of the architectural aspects of EU Customs related systems, processes and services.
	High-level qualified person with practical experience in the design of processes or systems covered in this Technical Annex.
	Deep knowledge and experience of architecture frameworks and methods and their practical implementation.
	In depth knowledge of interoperability frameworks, patterns and technologies.
	Capacity to define, integrate and document high level architecture artefacts on any architectural domain and their alignment with policy or strategy principles or objectives.
	Ability to chair and participate in multi-lingual meetings, excellent communication skills.
	Excellent capacity in writing and presenting documents.
	In depth knowledge of architecture design and modelling tools.
	Ability to apply high quality standards
	Capability of working in an international/multicultural environment, rapid self-starting capability and experience in team working, understanding the needs, objectives and constraints of those in other disciplines and functions.
Experience	10 years or more is required for the area of expertise

4.2.11 Solution Architect Senior

Profile :	**Solution Architect Senior (SAS)**
Overview	**High-level qualified person responsible for architectural design and documentation at portfolio, system or subsystem level. The solution architect focuses on IT solutions.**
Nature of tasks	Understand and interpret requirements. The architect participates in the discovery and the documentation of the business processes that are driving the solution. The architect is responsible for these requirements understanding and embodies that requirements understanding in the architecture solutions and specification(s).
	Perform the tasks linked to the roles of a technology, data or applications/services architect. It is to be understood that all these sub-roles are not necessarily attributed to the same person.
	Determine the correct architecture solutions and create the required architecture model(s). Take the requirements and develop well-formulated models of the components of the solution. Show multiple views through models to communicate the proposals effectively. The architect also ensures leverage opportunities are identified, using building blocks, and is a liaison between the business and IT groups to ensure that the leverage opportunities are realised. The provided solutions and models must provide a framework for understanding the domain(s) of development work, guiding what should be done within the applicable project(s).
	Validate, refine and expand the solutions and the models. During the lifecycle of the architecture solutions and models it is required to verify assumptions, bring in subject matter experts, etc. in order to improve the models and to further define them, adding as necessary new technology evolutions and integrate expected requirements. All this is to be managed under change and

	configuration management.
	Act as a consultant to the project team staff. Provide the required information and specifications such that correct IT design is performed for the functional and non-functional requirements to implement.
	Provide support to the transition and operational services. Ensure effective support for clarification of implemented IT solutions and resolution of problems during the development, testing and operational activities.
Knowledge and skills	Capacity to acquire the knowledge of the existing architecture solutions in place for the customs IT systems/applications managed by DG TAXUD and the EU Customs architecture in general.
	Good knowledge of architecture solutions design and modelling and project management.
	Being able to perform at least one of the following sub-roles: technology architect, data architect, applications/services architect.
	As a technology architect being expert in the following technical IT skills: security, system and network management, transaction processing, location and directory, user interface, international operations, data interchange, data management, graphics and image, operating system services, network services, communications infrastructure; have a good knowledge of software engeneering.
	As a data architect being expert in software engineering, location and directory, user interface, data interchange, data management; have a good knowledge of security, system and network management, transaction processing, international operations, graphics and image, operating system services, network services, communications infrastructure.
	As an applications/services architect being expert in software engineering, security, transaction processing, user interface; have a good knowledge in system and network management, location and directory, international operations, data interchange, data management, graphics and image, operating system services, network services, communications infrastructure.
	Capacity in writing and presenting documents.
	Ability to apply high quality standards
	Good communication skills.
	Capability of working in an international/multicultural environment.
Experience	8 years or more is required for the area of expertise

4.2.12 Solution Architect Junior

Profile :	**Solution Architect Junior (SAJ)**
Overview	**Qualified person participating in architectural design and documentation at portfolio, system or subsystem level. The solution architect focuses on IT solutions.**
	This profile also requires experience in the administration, customisation and use of the ARIS tool and/or other architecture, modelling or design tools.
Nature of tasks	Understand and interpret requirements. The architect participates in the discovery and the documentation of the business processes that are driving the solution. The architect is responsible for these requirements understanding and embodies that requirements understanding in the architecture solutions and

specification(s).

Perform the tasks linked to the roles of a technology, data or applications/services architect. It is to be understood that all these sub-roles are not necessarily attributed to the same person.

Determine the correct architecture solutions and create the required architecture model(s). Take the requirements and develop well-formulated models of the components of the solution. Show multiple views through models to communicate the proposals effectively. The architect also ensures leverage opportunities are identified, using building blocks, and is a liaison between the business and IT groups to ensure that the leverage opportunities are realised. The provided solutions and models must provide a framework for understanding the domain(s) of development work, guiding what should be done within the applicable project(s).

Validate, refine and expand the solutions and the models. During the lifecycle of the architecture solutions and models it is required to verify assumptions, bring in subject matter experts, etc. in order to improve the models and to further define them, adding as necessary new technology evolutions and integrate expected requirements. All this is to be managed under change and configuration management.

Act as a consultant to the project team staff. Provide the required information and specifications such that correct IT design is performed for the functional and non-functional requirements to implement.

Provide support to the transition and operational services. Ensure effective support for clarification of implemented IT solutions and resolution of problems during the development, testing and operational activities.

Assess the use made of TAXUD modelling tools and advice on governance, conventions, procedures, methods, customisations and/or configurations that should ensure the most effective use of the tool for TAXUD purposes.

Assess and compare the tools to use for specific architecture, design or modeling activities and provide advice so as coherence and completeness is ensured along the different architecture viewpoints and modelling activities.

Design, develop, test and deploy customised artefacts (reports, data export and import scripts, diagrams and objects layouts and design, tool configuration, etc.) according to a set of requirements.

Provide support for the management and administrate the tool and/or advice on best practices for doing so and realise specific delicate technical manipulations which may require good knowledge of the tool.

Provide coaching and training to administrators, architects, modellers and other users of the tool.

Knowledge and skills	Capacity to acquire the knowledge of the existing architecture solutions in place for the customs IT systems/applications managed by DG TAXUD and the EU Customs architecture in general.
	Good knowledge of architecture solutions design and modelling and project management.
	Being able to perform at least one of the following sub-roles: technology architect, data architect, applications/services architect.
	As a technology architect being expert in the following technical IT skills: security, system and network management, transaction processing, location and directory, user interface, international operations, data interchange, data management, graphics and image, operating system services, network services,

	communications infrastructure; have a good knowledge of software engineering.
	As a data architect being expert in software engineering, location and directory, user interface, data interchange data management; have a good knowledge of security, system and network management, transaction processing, international operations, graphics and image, operating system services, network services, communications infrastructure.
	As an applications/services architect being expert in software engineering, security, transaction processing, user interface; have a good knowledge in system and network management, location and directory, international operations, data interchange, data management, graphics and image, operating system services, network services, communications infrastructure.
	As a modelling and architecture tools expert should have strong experience in the use of modelling and design tools in Business or IT projects (ARIS, EA, etc.); experience in Business and/or IT system analysis and experience in developing in languages commonly used for tools customisation (JScripts, JSP) and in interfaces for data exchange between these tools
	Capacity in writing and presenting documents.
	Ability to apply high quality standards
	Good communication skills.
	Capability of working in an international/multicultural environment.
Experience	3 years or more is required for the area of expertise

4.2.13 IT Manager

Profile :	IT Manager (ITM)
Overview	**Manager of the IT project and support team. The IT manager will act as the delivery manager for all applicable IT services and related artefacts.**
Nature of tasks	Manage the different project and support teams such that they act as one team.
	Manage the required IT infrastructure and tools such that all activities are performed in optimal conditions. Capacity management is a key activity to avoid major issues in this domain.
	Work in close relationship with the programme manager to allocate the best possible IT staff to the required roles.
	Manage the IT project plans for the existing IT systems/applications and the new ones to build.
	Apply effective risk management especially in the context of the IT projects to conduct. Be pro-active to resolve issues from a resource capacity and project deliverables viewpoint.
	Make sure that the staff is trained according to the applicable methodology and to the quality and contractual processes.
	Monitor the progress of the activities to be performed and act as an escalation point for major issues.
Knowledge and skills	Leadership. The IT manager must demonstrate his competence, provide solutions and determine the way forward for the IT project and support team. Communication and team building are key for the successful role of the IT manager.

	Personal and professional skills. He must have strong communication and relationship skills. He must have a solid IT background in the domain of complex information systems.
	He must be able to build a vision for the future based on his knowledge of similar programmes.
	Methodology and technology. He must have a good overall knowledge of business process management, enterprise architecture and must be an expert in IT project management and development methodologies.
	He must have a good knowledge of the IT technology to be applied for the customs IT systems/applications. He must follow the trends such to provide advice to his team(s) and to the stakeholders.
	Ability to chair meetings and to give presentations.
	Ability to participate in multi-lingual meetings, good communication skills.
	Knowledge of customs processes and logistic chain processes in general are considered as an asset.
	Capability of working in an international/multicultural environment.
Experience	10 years or more is required for the area of expertise

4.2.14   IT Category Owner

Profile :	IT Category Owner (ITCO)
Overview	**Person responsible for managing several IT systems/applications grouped into a category of the portfolio. He is responsible for managing the team, work plan, and all the project management procedures.**
Nature of tasks	Acts as the IT project manager for the IT maintenance projects for the IT systems/applications he/she is responsible for.
	Assign and monitor the various support activities applicable to the IT systems/applications he/she is responsible for.
	Acts as the Single Point Of Contact with the relevant stakeholders of the Commission and other contractors.
	Apply correctly the quality processes and procedures.
	Provide correct reporting.
	Provide input to the PMO concerning proposals for the Request for Actions.
Knowledge and skills	Good project and contract management knowledge.
	In depth knowledge of the IT systems/applications he/she is responsible for.
	Excellent knowledge of project management standards and methodologies.
	Usage of project management tools and methodologies as specified by the Commission.
	Good technical knowledge on the projects aspects.
	Good reporting methods.
	Ability to chair meetings and to give presentations.
	Ability to participate in multi-lingual meetings, good communication skills.
	Ability to plan and forecast.
	Capability of working in an international/multicultural environment.
Experience	5 years or more as an IT project manager is required for the area of expertise

4.2.15 IT Project Manager

Profile :	IT Project Manager (ITPM)
Overview	**Person responsible for managing one project. He/she is responsible for managing the team, work plan, and all the project management procedures.**
Nature of tasks	Acts as the IT project manager for a given IT project. Acts as the Single Point Of Contact with the relevant stakeholders of the Commission and other contractors. Apply correctly the quality processes and procedures. Provide correct reporting on the project. Provide input to the PMO concerning proposals for the applicable Request for Actions.
Knowledge and skills	Good project and contract management knowledge. Excellent knowledge of project management standards and methodologies. Usage of project management tools and methodologies as specified by the Commission. Good technical knowledge on the projects aspects. Good reporting methods. Ability to chair meetings and to give presentations. Ability to participate in multi-lingual meetings, good communication skills. Ability to plan and forecast. Capability of working in an international/multicultural environment.
Experience	5 years or more is required for the area of expertise

4.2.16 IT Analyst

Profile :	IT Analyst (ITAN)
Overview	**Qualified person able to perform IT analysis activities such as IT requirements analysis and IT functional analysis.**
Nature of tasks	Analysis of the IT functional and non-functional requirements. This is to be done according to the applicable methodology and toolset to be used. Produce or maintain all required artefacts which specify all elements in terms of what needs to be implemented for a the different functional and non-functional IT requirements of given IT system/application. Apply the relevant methodological steps and produce the required models. Analyse & define specifications linked to the integration with other applications and/or technological components. Assist with training the administrators and users of the systems. Assist with evaluating and testing products delivered by other teams to ensure that they conform to the Commission requirements and methodology. Participation in meetings with the Commission.
Knowledge and skills	Excellent written and verbal communication skills. In depth knowledge of application development environments. Have familiarity with software design/development processes, and the ability

	to communicate effectively with development team.
	Have IT analysis skills and the ability to translate IT requirements.
	Have the ability to apply architectural principles to functional solutions.
	Experience using model-based representations that can be adjusted as required to collect, aggregate or disaggregate complex and conflicting information about the business.
	Acquire in a fast way the knowledge of the required methodologies to be applied and prescribed by the Commission (TEMPO, RUP@EC and any successors of these methodologies). An evolution towards applying SOA from an analysis viewpoint will be required.
	Ability to cope with fast changing technologies used in information systems developments.
	Working knowledge of Java development techniques and technologies.
	Ability to participate in multi-lingual meetings, ease of communication.
	Capability of working in an international/multicultural environment.
Experience	5 years or more is required for the area of expertise

4.2.17 IT User Interface Designer

Profile :	IT User Interface Designer (ITUID)
Overview	**High-level qualified person able to design high quality user interfaces**
Nature of tasks	Understand and analyse the requirements concerning the user interface(s) to be implemented.
	Create user interface specifications including user interface workflow diagrams, wireframes and visual design compositions for all digital platforms including website, mobile website and mobile/tablet apps.
	Develop prototypes if required to support the design specifications such to validate the requirements expressed by the users.
Knowledge and skills	Excellent written and verbal communication skills.
	Keen interest on quality and intense attention to detail.
	In depth knowledge of user interface technology.
	Have familiarity with software design/development processes, and the ability to communicate effectively with development team.
	Have IT analysis skills and the ability to translate IT requirements.
	Acquire in a fast way the knowledge of the required methodologies to be applied and prescribed by the Commission (TEMPO, RUP@EC and any successors of these methodologies). An evolution towards applying SOA from an analysis viewpoint will be required.
	Ability to cope with fast changing technologies used in information systems developments.
	Ability to participate in multi-lingual meetings.

	Capability of working in an international/multicultural environment.
Experience	5 years or more is required for the area of expertise

4.2.18 IT Designer

Profile :	IT Designer (ITDS)
Overview	**High-level qualified person able to perform IT Design activities.**
Nature of tasks	Produce or maintain all required artefacts which specify how the required processes, functionality and data will be implemented. This is the implementation of and aligned with the IT architecture solutions and the IT non-functional requirements.
	Apply the relevant methodological steps and produce the required models.
	Design the integration with other applications and/or technological components.
	Assist with training the administrators and users of the systems.
	Assist with evaluating and testing products delivered by other teams to ensure that they conform to the Commission requirements and methodology.
	Participation in meetings with the Commission.
Knowledge and skills	Good written and verbal communication skills.
	In depth knowledge of application development environments.
	Being expert with software design/development processes and tools, and the ability to communicate effectively with development team.
	Have the capacity to understand IT architecture solutions in general and IT architecture models specifically.
	In depth knowledge of the SQL as the database access language in a given DBMS implementation (currently Oracle at the Commission level).
	Acquire in a fast way the knowledge of the required methodologies to be applied and prescribed by the Commission (TEMPO, RUP@EC and any successors of these methodologies). An evolution towards applying SOA from an analysis viewpoint will be required.
	Ability to cope with fast changing technologies used in information systems developments.
	Working knowledge of Java development techniques and technologies.
	Ability to participate in multi-lingual meetings, ease of communication.
	Capability of working in an international/multicultural environment.
Experience	5 years or more is required for the area of expertise

4.2.19 IT Developer

Profile :	Developer (ITDEV)
Overview	**Person who is able to program software components and to assemble them into a working unit. The required programming expertise is considered to be mainstream for the IT projects to which the IT developer is assigned to.**

Nature of tasks	Development, configuration, maintenance and documentation of software components based on the applicable design specifications. These software components can be user interface components or back office components.
	Development of unit test specifications and perform these using the applicable toolset and infrastructure environment.
	Assemble the software components into coarse grained components which can be executed in software execution containers.
	Participate in incident and problem management and more specifically in the root cause analysis part exploring the source code of a given IT system/application.
	Assist in the preparation / maintenance of installation and operation manuals.
	Production of technical documentation for components during their development.
Knowledge and skills	Ability to understand the IT design models and specifications to be used as a basis for the programming.
	In depth knowledge of the applicable programming environment considered as being mainstream for the IT project to which the IT developer is assigned to.
	In depth knowledge of the SQL as the database access language in a given DBMS implementation (currently Oracle at the Commission level).
	Good knowledge of the development of web and multi-tiers Internet applications.
	Good knowledge of the web services stack used in the selected technology.
	Ability to cope with fast changing technologies used in application developments
	Capability of integration in an international/multicultural environment.
Experience	3 years or more is required for the area of expertise

4.2.20 Expert Developer

Profile :	Expert Developer (EXPDEV)
Overview	**Person who is able to program software components and to assemble them into a working unit. The required programming expertise is going beyond the mainstream expertise for the IT projects to which the IT developer is assigned.**
Nature of tasks	Development, configuration, maintenance and documentation of software components based on the applicable design specifications. These software components can be of any nature.
	Development of unit test specifications if applicable and perform these using the applicable toolset and infrastructure environment.
	Assemble the software components if applicable into coarse grained components which can be executed in software execution containers.
	Participate in incident and problem management and more specifically in the root cause analysis part exploring the source code of a given IT system/application.
	Assist in the preparation / maintenance of installation and operation manuals.
	Production of technical documentation for components during their development.

Knowledge and skills	Ability to understand the IT design models and specifications to be used as a basis for the programming.
	In depth knowledge of the applicable development environment which is going beyond the mainstream development expertise for the IT project to which the IT developer is assigned to. Examples of this (indicative and non-exhaustive) can be: programming of complex IT architecture solutions which are the foundation of implementing business functionality (e.g. TATAF components), integration of web services in an ESB infrastructure, implementation of services in a BPMS infrastructure, etc.
	Ability to cope with fast changing technologies used in application developments
	Capability of integration in an international/multicultural environment.
Experience	5 years or more is required for the area of expertise

4.2.21 Test Manager

Profile :	Test Manager (TSTM)
Overview	**Person responsible for all testing activities. He/she is responsible for managing the test team(s), work plan, and all the testing lifecycles.**
Nature of tasks	Responsible for the planning and execution of the test activities assigned to him/her.
	Act independent from the development team for the execution of the tests.
	Act as an adviser to the internal team and the Commission to evolve the testing working methods and tools.
	Correct reporting concerning the progress and the results of the tests.
	Continuous risk management concerning the progress and results of the testing activities.
	Participate to the test management meetings such as 'end of FAT' and 'end of SAT' meetings.
	Provide input to the PMO concerning proposals for the applicable Request for Actions.
Knowledge and skills	IT testing expert. Excellent knowledge of the testing lifecycle and the landscape of the tools to automate the test cases to perform.
	Good project and contract management knowledge.
	Good knowledge of testing standards and methodologies.
	Usage of project management tools and methodologies as specified by the Commission.
	Ability to plan and forecast.
	Good reporting methods.
	Ability to chair meetings and give presentations.
	Ability to apply high quality standards to all tasks
	Ability to participate in multi-lingual meetings, good communication skills.
	Capability of working in an international/multicultural environment..
Experience	8 years or more is required for the area of expertise

4.2.22 Test Designer

Profile :	Test Designer (TSTDS)
Overview	**Qualified person able to perform testing design activities and to produce test specifications.**
Nature of tasks	This role does not imply the execution of the test cases but all activities related to automated test design and to produce the master test plan(s) and the test design specifications – test scenario's.
	Manage and evolve the applicable framework(s) for the automated test tools. This implies the design and management of all required specifications, documentation and software components constituting the test suite.
	Acquire a good knowledge of the IT system/application from a functional/technical viewpoint such to design the correct and relevant test scenario's.
	Make sure that for a given IT system/application all requirements and functional specifications are covered by the designed scenario's.
	Assist the tester in the execution of the test cases in terms of the analysis of the result(s).
	Assist with evaluating of testing products to ensure that they conform to the Commission requirements and methodology.
	Participation in meetings with the Commission.
Knowledge and skills	Expert knowledge of the testing methods, techniques and tools.
	Ability to understand the functional and technical design of a given IT system/application.
	Ability to communicate effectively with development team.
	Ability to participate in multi-lingual meetings, ease of communication.
	Capability of working in an international/multicultural environment.
Experience	5 years or more is required for the area of expertise

4.2.23 Tester

Profile :	Tester (TST)
Overview	**Person who is able to produce the test design specifications – test cases, the applicable Acceptance Test Plans and to execute the test plans.**
Nature of tasks	Produce and maintain the required test design specifications – test cases. These can be paper-based (legacy or test cases which cannot be automated) or be integrated in a given tool. The latter determines the format and language applicable to the test cases: XML, Excel format, etc.
	Produce the Acceptance Test Plan (ATP) for formal test runs such as FAT runs and formal qualifications.
	Execute the required test cases and analyse the result(s).
	Report on the test result(s).
Knowledge and skills	Proven experience with testing technologies and tools (e.g. IBM Rational Functional/performance tester).
	Keen interest on quality and intense attention to detail.
	Ability to analyse results of testing correctly and to report on them efficiently.

	Capability of integration in an international/multicultural environment.
Experience	3 years or more is required for the area of expertise

4.2.24 Integration Expert

Profile :	Integration Expert (INTE)
Overview	**This staff profile combines several roles. The tasks can be executed by one or more persons. The profile requires good knowledge of the specification and software development life-cycle, will provide assistance in the deployment related activities and provide 3rd level support linked to the deployment and operations of configuration items linked to the systems and services in this Technical Annex. Furthermore good knowledge of security, telecommunication and infrastructure aspects linked to the systems and services in this Technical Annex are mandatory.** **Person that is responsible for configuration management, release management, infrastructure and tools management and technical support.** **Person able to prepare the applications for packaging, support the release management process, perform application deployment related testing (installation, removal, and re-installation) and produce the installation scripts, procedures and guidelines.**
Nature of tasks	Prepare, deploy and operate all ICT infrastructure (HW and OS and COTS) required by the contractor to perform its contractual obligations. Set-up and maintain an enterprise type configuration management environment to be used by all staff producing and maintaining IT artefacts. Provide training and guidance how to use the implied processes and tools and apply quality control on the usage. Maintain al the required test environments to be used by the internal teams(s) and the Commission. The latter is mainly for testing the correct implementation of the requirements and functional specifications in an early alpha release of the IT systems/application. Production and maintenances of all technical application and system documentation and technical support in the production and maintenance of all deliverables linked to the Framework Contract. Prepare the packaging of components of the systems and services in this Technical Annex, including the installation scripts, procedures and related installation and operational guides. Provide consultancy to the IT project team in terms of the development, test and operational environments. Participate in the production and maintenance of the infrastructure requirements for the new IT projects and the major releases of the existing IT systems and applications. Act as one of the main participants in important migration projects such as the migration to a new DBMS version or to a new application server version. Provide support to the ITSM2 contractor for all deployment & administration related activities. This implies possible pro-active training on new features and on-site support in case of major issues during the transition or operational phase. Provision of technical advice and assistance in any area associated with the procurement, provision, delivery, maintenance, deployment, hosting, effective use of information systems, communication systems and their environments.

	3rd level call resolution, problem analysis and resolution and technical support in all service support & service delivery processes.
Knowledge and skills	Good knowledge and proven experience of usage of automated build and deployment tools.
	Good communication and coordination skills.
	Outstanding reasoning, analytical, design, and troubleshooting skills.
	Rapid self-starting capability and experience in team working, understanding the needs, objectives and constraints of those in other disciplines and functions.
	Good knowledge of the architecture related to the systems and services in this Technical Annex and all technical aspects of its components.
	Expert knowledge of information systems, components (including OS, DBMS, application servers, etc.) and network communication matters.
	Good knowledge of security implementation mechanisms such as the usage of firewalls, security protocols implying integration activities such as PKI implementations, encryption mechanisms, etc.
	Expert knowledge to set-up and maintain an enterprise type configuration management environment.
	Ability to cope with the fast changing technologies.
	Ability to participate in multi-lingual meetings, excellent communicator.
	Capability of working in an international/multicultural environment.
Experience	5 years or more is required for the area of expertise

4.3 Interaction Model with stakeholders

The contractor will perform the activities under the authority and close control of the Commission, in function of the organisation in place at the Commission, and in full compliance with the existing Framework Quality Plan (FQP). The instruments of this control shall include all the deliverables specified in the WP.0 Management Work Package.

In terms of inter-relationship between DG TAXUD contractors, the contractor reports to the Commission only. In some specific circumstances, the Commission may authorise the establishment of direct working technical relationships between DG TAXUD contractors in order to improve the overall efficiency.

However, the Commission will always retain the full control over, and require full traceability of the information exchanged between the contractors. It is important to recognise that delays incurred by one contractor will ripple down to the other parties downstream, implying that all contractors must take adequate steps to address this risk.

In terms of interaction with the Commission, the contractor has to set up an organizational structure that can effectively interact with the one in place in the Commission. This interaction has to fit with the team structure requirements as specified in section 4.1.

For information on the internal DG TAXUD service organisation and for the contractual aspects of DG TAXUD, refer to 'Annex II.A - Terms of Reference, section 2'.

The specification and implementation of a pragmatic and effective interaction model between the contractor and the Commission is a key activity for the CUST-DEV3 contractor to perform following the kick-off of the contract.

The key objective of this interaction model is to establish a structured and effective communication and collaboration framework between the two parties (DG TAXUD and contractor) – which will be supported and driven by Single Points Of Contacts (SPOCs) nominated by each of the two parties at

contractual and technical level. Each nominated SPOC will be clearly reflected in the organisational structure and it will be responsible for coordinating activities within its own domain.

In the context of the CUST-DEV3 contract, the contractor will interact mainly with **units A3, R4 and R5** of DG TAXUD, and in particular with the sectors

- the "Customs Code and Project Management" sector of Unit A3 (alias A3/CCPM), and

- the "eCustoms" sector of Unit A3 (alias A3/EC), and

- the "Project Support" sector of Unit R4 (alias R4/PS), and

- the "Enterprise IT architecture and Strategy" sector of Unit R5 (alias R5/EAS), and

- the "Infrastructure and IT Service Delivery" sector of Unit R5 (alias R5/ISD), and

- the "Customs Information Systems" sector of Unit R5 (alias R5/CIS).

For security-related activities and issues, the contractor will need to interact with the "**R4/LISO**" sector.

For each of the above sectors, SPOCs will be nominated by the Commission for managing and coordinating effort and activities with the SPOCs nominated by the CUST-DEV3 contractor.

The implementation of the interaction model will be specified in the FQP.

A brief description of the interactions between the contractor and the **Commission's SPOCs** identified above is as follows:

- **Interactions between A3/CCPM sector and Contractor**

  The contractor will interact with the A3/CCPM sector in the context of all actions mainly related to Business processing and modelling.

- **Interactions between A3/EC sector and Contractor**

  The contractor will interact with the A3/EC sector in the context of all actions mainly related to business aspects of the eCustoms systems.

- **Interactions between R5/EAS sector and Contractor**

  The contractor will interact with the R5/EAS sector in the context of all actions mainly related to enterprise architecture, strategy and the SPEED2 platform.

- **Interactions between R5/CIS sector and Contractor**

  The contractor will interact with the R5/CIS sector mainly for IT development and support services for the customs IT systems and applications.

- **Interactions between R5/ISD sector and Contractor**

  The contractor will interact with R5/ISD sector in the context of all ITSM2 related activities and the TAXUD Data Centre hosting aspects.

- **Interactions between R4/LISO sector and Contractor**

  The R4/LISO sector interacts with the contractor in activities related to security.

- **Interactions between R4/PS sector and Contractor**

  The R4/PS sector interacts with the contractor in activities related to TEMPO methodology and in the context of contract and supply management.

It must be noted that several horizontal services to be delivered span the different sectors and will require additional coordination.

In addition to the interactions with the sectors (as described above), the CUST-DEV3 contractor will also interact with the **other DG TAXUD contractors**.

In the context of the CUST-DEV3 contract, the contractor will interface with the **Quality Assurance and Control contractor** in the context of deliverables review/acceptance process and in the context of

quality audits. The Commission will identify to the CUST-DEV3 contractor the SPOC for the QA & QC contractor.

In the context of the CUST-DEV3 contract, the contractor will interact with the **ITSM2 contractor** in the context of knowledge sharing, service transitions and operational aspects of the systems and services in this Technical Annex. Furthermore, the contractor can be involved in the context of benchmarking and assessment, advice and control and integration of the services offered by al DG TAXUD contractors and the TSM2 Lot3 contractor.

The contractor can also have **other contacts** with e.g. other units of DG TAXUD, other DGs of the Commission and the National Administrations.

The above is not meant to be exhaustive and can be subject to changes during the contract.

4.4   Availability

The CUST-DEV3 **working days** are all days from Mondays to Fridays. Thus, all working days including Public and Commission holidays and Commission on-duty days (such as Holy Thursday, Good Friday, the day following Ascension Day and the period between 27 and 31 December). This applies to **all** activities/services/WPs linked to the framework contract **except WP.8.8.1 and WP.8.8.2.**

The CUST-DEV3 **working hours** are from **7 a.m. to 8 p.m.** on CUST-DEV3 working days for the following activities/services/WPs linked to the framework contract:

- WP.8.1.1 (Incident management) and WP.8.1.2 (Problem Management). If an incident has been assigned to the CUST-DEV3 contractor with 'critical' priority, the contractor will continue working until the incident is resolved even if this requires the staff to continue working outside these working hours. A 'critical' incident for which a software bug has been identified as the root cause may imply the delivery of an emergency fix (alias hotfix) in order to resolve the incident. As for the incident resolution, the CUST-DEV3 contractor must continue to work outside working hours to deliver such an emergency fix by repairing the defect (WP.8.1.4), performing qualification testing (WP.7.5.4), delivering the software (WP.8.3.1) and delivering the support to service transition services (WP.8.3.2) if applicable.

The CUST-DEV3 "**call availability outside working hours**" services are linked to **WP.8.8.1** and are to be performed from 8 p.m. to 7 a.m. on the CUST-DEV3 working days and for 24 hours on the CUST-DEV3 non-working days.

The CUST-DEV3 "**extended time – ad hoc**" services are linked to all activities/services/WPs described under **WP.8.8.2** and can be performed, in exceptional cases or, on request of the Commission, from 8 p.m. to 7 a.m. on the CUST-DEV3 working days and for 24 hours on the CUST-DEV3 non-working days. This could be the case for, e.g.:

- Off Site support outside working hours in case of a business continuity crisis's or for 3rd level support, build and test and package patches and support to the operational teams for deploying the patches,
- On site presence if needed for urgent and operational needs mainly linked to the deployment of new systems/components.

4.5   Place of Work

The activities and services covered by this Framework Contract will be performed **primarily** at the contractor's premises (*extra-muros*) situated **in the territory of one or more of the EU Member States, excluding ANY services provided from contractor locations outside the EU territory.**

The contractor may also be requested to perform missions (refer to WP.8.6.3).

Meetings with the Commission services are generally held in the premises of DG TAXUD. Some meetings may also be held at the premises of another contractor involved in the service or at the premises of the National Administrations.

Trainings, workshops and demonstrations with National Administrations are generally held at the Contractor's premises.

However, the Commission can request as well the Contractor to execute some specific activities/services from the Commission's or a national administration premises (*intra-muros*).

The intra-muros vs. extra-muros ratio may not exceed 10%. The contractor must take note that this is a provision and not a commitment from the Commission; the services being normally executed extra-muros.

4.6 Languages

The required **services** must be provided at least in English. All **deliverables** must be delivered in UK English unless otherwise specified. During **meetings** (bilateral, workshops, steering Committee, etc.), either French or English will be spoken subject to agreement of all participants of the meeting.

At request of DG TAXUD, the contractor may have to translate certain deliverables (in particular the ones destined to the Member States, e.g. some key project deliverables, communication leaflets, newsletters, news alerts etc.). Deliveries in any other language will be handled via translations (See WP.8.5.5).

5. Quality requirements

5.1 Methodology

TEMPO is the applicable methodology for the CUST-DEV3 contractor and for other contractors which will interact with the CUST-DEV3 contractor. The contractor will need to adapt to the evolution of TEMPO which is subject to a continuous improvement programme leading to 1 or 2 TEMPO releases per year.

5.2 Standards and best practices

The contractor has to deliver the requested services in line with the ITIL best practices, ISO Standards and TEMPO methodology.

In addition, the contractor will use ISO/IEC 20926:2009 (IFPUG FSM) to quantify the size of the software development, including pertinent documentation.

5.3 The quality framework of the CUST-DEV3 contract

Considering the important operational responsibilities of DG TAXUD, expressed by SLAs, in the domain of the customs IT systems and applications, the delivered quality by the CUST-DEV3 contractor is of the highest importance for DG TAXUD.

The hierarchy and the applicability order among the different parts of the quality framework of the CUST-DEV3 contract is the following:

1.   The contractual OLA is applicable at the level of the Specific Contract. It mainly contains an extract of the SQIs/KPIs as defined in this Technical Annex (Annex II.B – Technical Annex);

2.   The Framework Quality Plan (FQP) is applicable at the level of the Framework Contract and is the main reference for the CUST-DEV3 contract concerning this domain;

3.   TEMPO acts on the level applicable to all systems and projects managed by DG TAXUD.

5.3.1   Contractual Operation Level Agreement (OLA)

The levels of service to be provided by the contractor will be agreed with the Commission in the contractual Operational Level Agreement (OLA) which will constitute an integral part of a given Specific Contract. The contractual OLA defines mainly the SQIs to be respected and the KPIs to be monitored. These quality indicators will be extracted from this Technical Annex (Annex.II.B – Technical Annex).

Newly required SQIs or changes to existing ones will require a change of the relevant part of this Technical Annex (Annex.II.B – Technical Annex).

Newly required KPIs or changes to existing ones can be implemented at the level of the contractual OLA without changing this Technical Annex (Annex.II.B – Technical Annex).

All contractual OLAs will be become an annex to the FQP.

5.3.2   Framework Quality Plan (FQP)

The FQP describes all organisational aspects, the required process implementations and the tools to be used which are leading to the best possible quality outcome of the ordered services.

Refer to the baseline for the FQP applicable to the incumbent contractor and to TEMPO for more generic information concerning FQPs.

5.3.3   TEMPO

TEMPO is the overall reference for all quality elements which are explicitly defined in the contractual OLA and FQP. Refer to 'Annex II.A - Terms Of Reference, section 10' for more information on TEMPO.

5.3.4   Service Level Agreement (SLA)

The Service Level Agreements (SLA) are set-up between the Commission and the customers of its services. They define the minimum level of service expected from the Commission. It provides a mutual understanding of service level expectation and their measurement methods. The following categories of users are currently identified:

- The National Administrations (NAs);

- The users within the Commission, including also the other Directorates General.

The SLAs are maintained by the ITSM2 contractors which are also ensuring the required reporting on these SLAs.

The SLAs are as such not contractually binding for the CUST-DEV3 contractor but act as a reference in the OLAs and the FQP.

5.4   IT Development Excellence

DG TAXUD has important IT operational responsibilities. Operational excellence is required to provide the services according to the expected quality. This operational excellence for the services linked to the IT systems and applications is not possible without IT development excellence.

The contractor must demonstrate throughout the different phases of the development lifecycle and the applicable support services that all measures are taken to deliver software to DG TAXUD which can be deployed in conformance/production according to the expected business date and quality.

During the development lifecycle the following objectives must be achieved (list indicative and not exhaustive):

- The IT functional requirements and specifications must fit with the business analysis and modelling specifications. The result must guarantee that the IT design and the software to develop will correspond to the business user expectations. This is not only applicable to the business functionality but as well to the user interfaces, etc.

- The IT system/application system model must provide the required IT views which are needed to produce the correct IT design specifications;

- The IT design specifications or artefacts must be the basis for efficient programming;

- The coding must be of good quality;

- The testing lifecycle is closely linked with the development lifecycle. All required tests which can be performed to validate the functionality and the non-functional requirements must be performed as soon as possible.

Several IT systems/applications or parts of it have to be implemented by the National Administrations based on agreed common interfaces. The quality of the specifications produced by the contractor and delivered to the National Administrations by DG TAXUD is critical for the correct overall development lifecycle at EU level. As the national development lifecycles are dependent on the correct delivery of common EU specifications, the planning is in all cases to be respected;

The correct implementation of the interaction with the ITSM2 Lot1 contractor is an important condition towards operational excellence. Refer to section 7 for more information on the Synergia programme which is to be taken into account in this objective. The contractor must involve the ITSM2 Lot1 contractor in all phases of the development lifecycle such that:

- On-going knowledge transfer to the ITSM2 Lot1 contractor is guaranteed concerning all aspects that could have operational importance;

- The architecture solutions and major IT design solutions are in harmony with the conformance/production environments. All implementation aspects have to be checked such to avoid any misunderstandings later in the service transition and operational phases. This is applicable to database sizing and configuration, application server mechanisms and services, etc.

An important step in the overall lifecycle of an IT project or software release to deliver is the formal 'handshaking' step between the CUST-DEV3 contractor and the ITSM2 Lot1 contractor. This is currently realised with the delivery of the software release and all related artefacts followed with the execution of a pre-SAT activity during which the operational contractor must confirm that all conditions are fulfilled to start effective Site Acceptance Tests.

5.5 Continuous Service Improvement Programme (CSIP)

The transformation objectives of the contract will be pursued by managing a constant service improvement programme (CSIP) that the contractor will maintain by taking advantage of the lessons learned, proposals for improvement, opportunities and targeting the maturity and compliance objectives of the contract.

The CSIP will be the key central instrument to steer the required transformation in a consistent and co-ordinated way across all work packages of the contract. It will be of particular importance for the development of applications and the continuous improvement of the service quality.

The CSIP will be delivered to the Commission as part of the FQP (see WP.0.1).

5.6 Audits from the Commission

The Commission reserves the right to perform quality and security audits in the contractor's premises for assessing the performance and the quality of the delivered services. The Commission may elect to contract with a third party to perform these audits, and the contractor commits himself to co-operate fully with the Commission during these audits (refer to WP.0.9).

5.7 The Quality of Service Approach

The quality of the result/output of the ordered services will be measured by means of quality indicators:

- Specific Quality Indicators (SQI): measure the quality of a particular ordered service or part of it;

- General Quality Indicators (GQI): an aggregation of SQIs which measures a more general quality of ordered services;

- Key Performance Indicators (KPI): KPIs give information about the services in general, and are of informative nature and are not contractually binding.

This approach provides:

- A normalised way to quantify the quality of service and a weighted approach in combining all the service quality indicators into a single general quality indicator (GQI);

- A mechanism to determine the liquidated damages;

- A grace window in case the quality of service is below target but within a certain limit.

The following sections describe the required details of this Quality of Service method.

5.7.1 The Specific Quality Indicators (SQI)

5.7.1.1 Definition of the SQI

The following parameters define a Specific Quality Indicator.

SQI Attribute	SQI Attribute description
SQI Name	A name, which allows to fully identify the SQI.
SQI Description	A complete description of the SQI.
Measurement of the QoS (M)	Specifies the *measurement* of the QoS (or combination of set of measurements) for the SQI.
Unit of Measurement of the QoS	Defines the Unit of Measurement of the QoS. For example, a SQI aiming to evaluate duration or delays can be expressed in hours or days.
Application period	Specifies the overall period over which the SQI is calculated;
Target	Target, which sets the level of the measurement that, if reached, would demonstrate good QoS.
Limit	Together with the Target, the Limit defines the "grace window" ", within which although the QoS is below target, the SQI is still immunised from negative impact.
Normalised Measurement (M_{norm})	A normalised Measurement is the result of the transformation of a measure (see formula below), which renders a number independent of the unit of measure of the QoS.
SQI Profiled (SQI_{prof})	A profiled SQI is the result of a profiling function applied to a normalised SQI (see function f below).
Applicable services/deliverables	Defines the set of services and deliverables, to which the SQI will apply.
Minimum number of Measurements	Minimum number of measurements or set of measurements necessary for an SQI to be computable.

5.7.1.2 Calculation of the SQI

SQIs are calculated using the following steps in sequence:

Collect Measurement of QoS (M)

The Measurement M (or set of measurements) of QoS has to be collected and possibly combined according to the definition of the Measurement of the QoS.

If the minimum number of measurements required over the Application period to make the SQI computable is not attained, then the Measurement (hence SQI) has no applicable value for that application period.

Normalise the Measurement (M_{norm})

For a given Measurement M, the related normalised Measurement $\underline{M_{Norm}}$ is obtained by applying the following formula:

$$\underline{M_{Norm}} = \frac{M - Target}{Target - Limit}$$

Where the M, Target and Limit are values expressed in the same unit and are part of the SQI definition.

SQI_{prof} as a result of the Profiling function

Once the Measurement has been normalised to M_{Norm}, it is *profiled* (using the *f* function) to a SQI_{prof}, which has the following effects:

- It limits the SQI_{prof} upwards, versus irrelevant over-performance of QoS above target;
- It defines linear proportionality between the SQI_{prof} and the under-performance of QoS below Limit;
- It sets a grace period (interval defined by the Target and the Limit) which is setting the SQI_{prof} to a neutral level, immunising the SQI from any positive or negative factor.

The profiling function (*f*) is applied on all occurrences of the normalised Measurements. Those calculations are provided in detail in the SQI report attached to the Monthly Project Report.

The profiling function f is defined as follows:

- If $\quad \underline{M_{Norm}} \geq 0 \Rightarrow SQI_{prof} = f(\underline{M_{Norm}}) = 1$ i.e. the QoS leads to a Measurement above or on *Target*

- If $\quad -1 < M_{Norm} < 0 \Rightarrow SQI_{prof} = f(\underline{M_{Norm}}) = 0$ i.e. the QoS leads to a Measurement between *Target* and *Limit* – <u>neutral grace window</u>

- If $\quad M_{Norm} = -1 \Rightarrow SQI_{prof} = f(\underline{M_{Norm}}) = -1$ i.e. the QoS leads to a Measurement on *Limit*

- If $\quad M_{norm} < -1 \Rightarrow SQI_{prof} = f(\underline{M_{norm}}) = \underline{M_{norm}}$ i.e. the QoS leads to a Measurement below the *Limit*

This profiling function is plotted in the figure below.

Profiling Model "linear penalties w/ a neutral grace window"
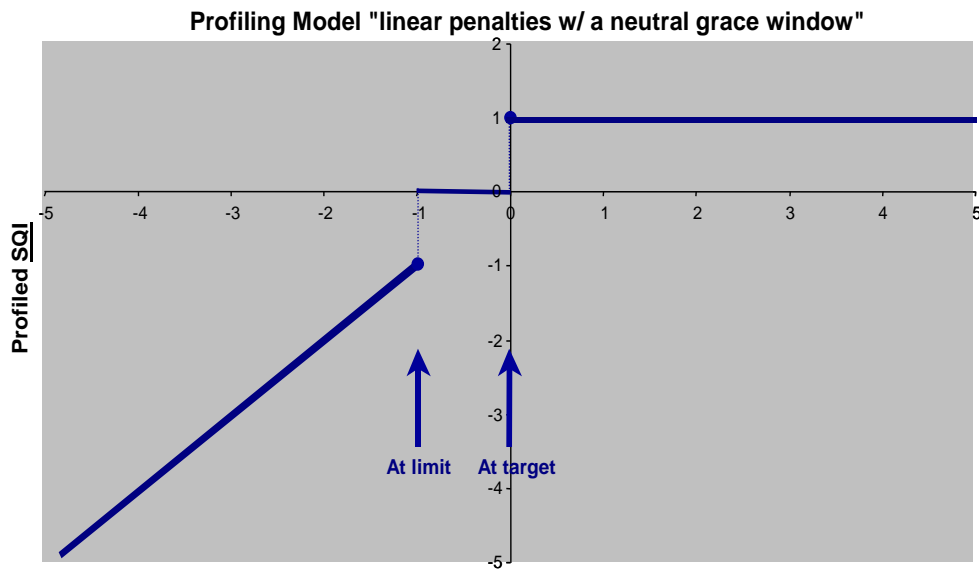
Normalised Measurement

Figure 4 **-** Profiled SQIprof

Averaged profiled SQI

When a single SQI$_{prof}$ is used to measure the QoS of multiple occurrences of services/delivery of the same nature, it is called an "averaged SQI", which is made of the average of all multiple-SQI$_i$ according to the following formula:

$$SQI_{\text{prof}} = \frac{\sum_{i}^{n} SQI_{prof\ i}}{n} = \frac{\sum_{i}^{n} f(\underline{M}_{\text{norm}\ i})}{n}$$

Where n is the number of occurrences of the given SQI$_{prof}$ during the application period.

5.7.1.3 Detailed information on SQIs

All "SQI Target", "SQI Limit" and "SQI Minimum number of Measurements" are monthly values unless explicitly specified otherwise.

The following table lists all the SQIs/KPIs further described into more detail.

KPI#	SQI#	Name	Target	Limit	Min # of events
-	SQI01a	Measure the respect of the deadline of a deliverable whose delay would have a **major** impact (SfA)	"0 delay" for acceptance	1 working day	1
-	SQI01b	Measure the respect of the deadline of a deliverable whose delay would have a **major** impact (SfR)	"0 delay" for review	1 working day	1
-	SQI02a	Measure the respect of the deadline of a deliverable whose delay would have a **high** impact (SfA)	"0 delay" for acceptance	5 working days	1
-	SQI02b	Measure the respect of the deadline of a deliverable whose delay would have a **high** impact (SfR)	"0 delay" for review	5 working days	1

KPI#	SQI#	Name	Target	Limit	Min # of events
-	SQI03a	Measure the respect of the deadline of a deliverable whose delay would have a **medium** impact (SfA)	"0 delay" for acceptance	10 working days	1
-	SQI03b	Measure the respect of the deadline of a deliverable whose delay would have a **medium** impact (SfR)	"0 delay" for review	10 working days	1
-	SQI04a	Measure the respect of the deadline of a deliverable whose delay would have a **low** impact (SfA)	"0 delay" for acceptance	15 working days	1
-	SQI04b	Measure the respect of the deadline of a deliverable whose delay would have a **low** impact (SfR)	"0 delay" for review	15 working days	1
-	SQI05a	Measure the Incident resolution time for Low, Medium & High priority Incidents	95% "0 delay"	90%	20
-	SQI05b	Measure the Problem resolution time for Low, Medium & High priority Problems	95% "0 delay"	90%	20
	SQI05c	Measure the Critical Incident resolution time	95% "0 delay"	90%	1
-	SQI05d	Measure the critical Problem resolution time	95% "0 delay"	90%	1
-	SQI06	Measure the resolution time for RfI	95% "0 delay"	90%	5
-	SQI07	Measure the number of (p)SAT iterations per software release	1 test iteration	3 test iterations	1
-	SQI08	Measure the time to escalate to the Commission for critical incidents/major service risks	95% less than 2 hours during CUST-DEV3 contract working hours	90% less than 2 hours	5 events to escalate
-	SQI09	Measure the delay to deliver a technically acceptable offer/proposal	"0 delay" for getting technically acceptable offer/proposal	2 working days	1
-	SQI10	Measure the process Compliance as assessed by self-assessment, internal and external audits, audit by the Commission	Maximum 2 critical and/or significant audit recommendations open per assessment or audit	Number of critical and significant recommendations open less than 15	1
-	SQI11	Measure the conformance to security controls (number of critical findings during security audit)	Maximum 1 critical audit finding open per security audit	Maximum 3 critical audit finding open per security audit	1
-	SQI12	Measure the corrective issue resolution hotfix delay	98% "0 delay"	93% "0 delay"	1 applicable problem or incident
-	SQI13	Measure the number of complaints[12] received	0	2	1

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[12] E-mail or letter entitled 'Official Complaint' from a Commission official with copies to those fulfilling the roles at the next escalation level in the Escalation Procedure defined in the FQP. The exact procedure, in line with the escalation process is to be detailed in the FQP.

KPI#	SQI#	Name	Target	Limit	Min # of events
-	SQI14	Measure that actions agreed with DG TAXUD have been implemented within the given timeframe	0 delay	3 working days	5 actions
-	SQI15	Delay to deliver a patch during a PSAT session	0 working day	1 working day	1
-	SQI16	Measure training/workshop appraisal	100%	79%	1 training/ workshop
-	SQI17	Measure the satisfaction of the users with the services provided by the CUST-DEV3 contractor	Very Satisfied	Somewhat satisfied	5 answers
-	SQI18	Effectiveness of comments in relation to technical documents review	90 % of the comments to be implemented	85 % of the comments to be implemented	100 comments
-	SQI19 **Direct Liquidated damages**[13]	Measure if the initial value of "Total number of months experience in managerial roles of the management team that will be assigned full time to the project" remains at an acceptable level	95%	85%	-
-	SQI20 **Direct Liquidated damages**	Measure the number of DG TAXUD staff allocated to services that should be provided by the CUST-DEV3 contract, but that are not.	0 days	5 days	-
-	SQI21 **Direct Liquidated damages**	Measure that the team in charge of the CUST-DEV3 contractor providing fixed-price services is staffed with the key personnel as proposed in the CUST-DEV3 tender and that they are allocated and remain staffed to the activity as of the signature of the first Specific Contract.	0	0	NA
-	SQI22 **Direct Liquidated damages**	Measure the delay in completing the Take-over within the foreseen Take-over period.	0	0	1
-	SQI23	Implementation of agreed actions following an audit	100%	100%	1
-	SQI24	Measure the correctness of IFP counting proposed by the CUST-DEV3 contractor	0	2	1

[13] See section 5.7.4 for details on liquidated damages.

KPI#	SQI#	Name	Target	Limit	Min # of events
KPI01	-	Measure the quality of a deliverable (SfR) - this will be the number of documents rejected at SfR and having to be resubmitted for review	-	-	-
KPI02	-	Measure the quality of a deliverable (SfA) - this will be the number of documents rejected at SfA and having to be resubmitted for acceptance	-	-	-
KPI03	-	Measure the time to notify the Commission delays of deliverables categorized with major or high impact for the Commission	-	-	
KPI04	-	Measure the number of retrospective changes performed on the CMDB & DML	-	-	-
KPI05	-	Measure the number of assigned calls remaining open	-	-	-
KPI06	-	Measure the number of calls assigned during the reporting period	-	-	-
KPI07	-	Measure the number of unassigned calls during the reporting period	-	-	-
KPI08	-	Measure the number of defects reported during PSAT	-	-	-
KPI09	-	Measure the number of defects reported during SAT	-	-	-
KPI10	-	Measure the number of comments in relation to technical documents review	-	-	-
KPI11	-	Measure the number of defects reported per CI (systems/application/component) per reporting period	-	-	-
KPI12	-	Measure the number of defects/features incorrectly implemented	-	-	-
KPI13	-	Measure the number of changes reported per CI (systems/application/component) per reporting period	-	-	-
KPI14	-	Measure the number of patches delivered per CI (systems/application/component) per reporting period	-	-	-
KPI15	-	Measure the number of releases delivered per CI (systems/application/component) per reporting period	-	-	-
KPI16	-	Measure the unavailability times due to CUST-DEV3 related CIs	-	-	-
KPI17	-	Measure the number of maintenance licences for which the expiry reporting (not later than 90 days before the end of the contract) was late per reporting period	-	-	-
KPI18	-	Measure the number of CUST-DEV3 documents for which more than 50/100/200 comments were raised	-	-	-

KPI#	SQI#	Name	Target	Limit	Min # of events
KPI19	-	Measure the number of documents for which more than 15 / 30 / 50 comments are to be discussed during the Review Meeting	-	-	-

5.7.1.3.1 SQI01a

SQI Attribute	SQI Attribute description
SQI Name	SQI01a
SQI Description	Measure the respect of the deadline of a deliverable which delay would have a major impact (SfA)
Unit of Measurement of the SQI	working days
SQI Target	"0 delay" for acceptance
SQI Limit	1 working day
SQI Calculation	The actual delivery date is the date the deliverable is uploaded on CIRCABC. If the deliverable must be uploaded several times on CIRCABC for acceptance: • The actual delivery date is the date of the last upload for acceptance. • For each re-SfA, the number of days to be considered in the calculation of this SQI will be the number of days between the moment the contractor received the IVE_NOK (or the request for re-SfA from DG TAXUD) and the moment the new version of the document has been uploaded on CIRCABC. The planned delivery date is defined in the last approved version of the DTM for all deliverables. The SQI will be calculated for every reporting period. The SQI equals to the average of the normalised and profiled value of the individual values of $(A_D - P_D)$. where: A_D is the actual delivery date of each deliverable, which has been tagged as having a delay impact defined in the SQI Description above, which was actually delivered for Final acceptance during the reporting period And P_D is the planned delivery date of the deliverable *Note: if $A_D < P_{D\ then}$ the delay is to be considered as zero.* The average of each occurrence of this SQI will constitute the value to be used in the GQI calculation.
Applicable services/deliverables	Please refer to "Table 3: Services & Deliverables"
Minimum number of Measurements	1 deliverable

5.7.1.3.2 SQI01b

SQI Attribute	SQI Attribute description
SQI Name	SQI01b
SQI Description	Measure the respect of the deadline of a deliverable whose delay would have a major impact (SfR)
Unit of Measurement of the SQI	working days
SQI Target	"0 delay" for review
SQI Limit	1 working day
SQI Calculation	The actual delivery date is the date the deliverable is uploaded on CIRCABC. If the deliverable must be uploaded several times on CIRCABC for Review: • The actual delivery date is the date of the last upload for Review. • For each re-SfR, the number of days to be considered in the calculation of this SQI will be the number of days between the moment the contractor received the rejection mail for the SfR and the moment the new SfR version of the document is uploaded on CIRCABC The planned delivery date is defined in the last approved version of the DTM for all deliverables. The SQI will be calculated for every reporting period. The SQI equals to the average of the normalised and profiled value of the individual values of $(A_D - P_D)$. where: A_D is the actual delivery date of each deliverable, which has been tagged as having a delay impact defined in the SQI Description above, which was actually delivered for Final Review during the reporting period And P_D is the planned delivery date of the deliverable *Note: if $A_D < P_D$ then the delay is to be considered as zero.* The average of each occurrence of this SQI will constitute the value to be used in the GQI calculation.
Applicable services/deliverables	Please refer to "Table 3: Services & Deliverables"
Minimum number of Measurements	1 deliverable

5.7.1.3.3 SQI02a

The information given in section 5.7.1.3.1 applies with the following changes:

SQI name: SQI02a

SQI description: Measure the respect of the deadline of a deliverable whose delay would have a high impact (SfA)

SQI Limit: 5 working days

5.7.1.3.4 SQI02b

The information given in section 5.7.1.3.2 applies with the following changes:

SQI name: SQI02b

SQI description: Measure the respect of the deadline of a deliverable whose delay would have a high impact (SfR)

SQI Limit: 5 working days

5.7.1.3.5 SQI03a

The information given in section 5.7.1.3.1 applies with the following changes:

SQI name: SQI03a

SQI description: Measure the respect of the deadline of a deliverable whose delay would have a medium impact (SfA)

SQI Limit: 10 working days

5.7.1.3.6 SQI03b

The information given in section 5.7.1.3.2 applies with the following changes:

SQI name: SQI03b

SQI description: Measure the respect of the deadline of a deliverable whose delay would have a medium impact (SfR)

SQI Limit: 10 working days

5.7.1.3.7 SQI04a

The information given in section 5.7.1.3.1 applies with the following changes:

SQI name: SQI04a

SQI description: Measure the respect of the deadline of a deliverable whose delay would have a low impact (SfA)

SQI Limit: 15 working days

5.7.1.3.8 SQI04b

The information given in section 5.7.1.3.2 applies with the following changes:

SQI name: SQI04b

SQI description: Measure the respect of the deadline of a deliverable whose delay would have a low impact (SfR)

SQI Limit: 15 working days

5.7.1.3.9 SQI05a

SQI Attribute	SQI Attribute description
SQI Name	SQI05a
SQI Description	Measure the Incident resolution time for Low, Medium & High priority Incidents
Unit of Measurement of the SQI	%
SQI Target	95% "0 delay"
SQI Limit	90%
SQI Calculation	This SQI allows to assess the time elapsed between the moment the 3rd Level incident (with a priority of Low, Medium or High) notification is received by CUST-DEV3 and the moment the IT service operation is restored in its normal state (without reduction of quality of service) or the root cause is identified. If the latter is identified as a software defect, the criticality of the repair will be established in agreement with the system owner. The elapsed time is computed in working hours only and does not cover the time waiting for information requested by CUST-DEV3 to address the issue. $SQI05a = C_{IT}/C_{ALL}$ C_{ALL} is the total number of incidents (with a priority of Low, Medium or High) resolved by CUST-DEV3 during the reporting period and C_{IT}=the total number of incidents (with a priority of Low, Medium or High) resolved by CUST-DEV3 during the reporting period, where the resolution time is lower than or equal to the maximum resolution time as defined below The **maximum resolution time** is, depending on the priority of the incident: Low (Priority=4): 5 Working-Days Medium (Priority=3): 3 Working-Days High (Priority=2): 1 Working-Days An **incident is resolved** when the IT service operation is restored in its normal state (without reduction of quality of service) or the root cause is identified. Incident **priority** will be set by the ITSM2 Lot1 contractor for 3rd level incidents according to the rules defined in ITSM FQP (Ref: 'ITSM Framework Quality Plan [R033]'). Incident **priority** is calculated based on **impact and urgency** when creating the call according to the following table: ⚠️DG TAXUD may request to change the impact/urgency values at any time. Impact <table><tr><td>Urgency</td><td>Low</td><td>Medium</td><td>High</td></tr><tr><td>Low</td><td>4</td><td>3</td><td>2</td></tr><tr><td>Medium</td><td>3</td><td>2</td><td>1</td></tr></table>

SQI Attribute	SQI Attribute description
	High 2 1 1 ⚠ Critical incidents (Priority=1) are excluded from this SQI calculation as they are covered by SQI05c. The SQI value for the final GQI will be an average of all profiled SQIs during the SC.
Applicable services/deliverables	SE.8.1.2.1 (Incidents)
Minimum number of Measurements	20

5.7.1.3.10   SQI05b

SQI Attribute	SQI Attribute description
SQI Name	SQI05b
SQI Description	Measure the Problem resolution time for Low, Medium & High priority Problems
Unit of Measurement of the SQI	%
SQI Target	95% "0 delay"
SQI Limit	90%
SQI Calculation	This SQI allows to assess the elapsed time between the moment the problem notification (with a priority of Low, Medium or High) is received by CUST-DEV3 and the moment the Root Cause Analysis is performed and the root causes linked to this problem are detected. The elapsed time is computed in working hours only and does not cover the time waiting for information requested by CUST-DEV3 to address the issue. $SQI05b = C_{IT}/C_{ALL}$ C_{ALL} is the total number of problems (with a priority of Low, Medium or High) resolved by CUST-DEV3 during the reporting period and C_{IT}=the total number of problems (with a priority of Low, Medium or High) resolved by CUST-DEV3 during the reporting period, where the resolution time is lower than or equal to the maximum resolution time as defined below The **maximum resolution time** is, depending on the priority of the problem: Low (Priority=4): 10 Working-Days Medium (Priority=3): 5 Working-Days High (Priority=2): 3 Working-Days A **problem is resolved** when a Root Cause Analysis is performed and the root causes linked to this problem/event are detected. The Closure Request is triggered when the problem report is available. Problem **priority** will be set by the ITSM2 Lot1 contractor for 3rd level calls according to the rules defined in ITSM FQP (Ref: 'ITSM

SQI Attribute	SQI Attribute description
	Framework Quality Plan [R033]').
	Problem **priority** is calculated based on **impact and urgency** when creating the call according to the following table:
	⚠️DG TAXUD may request to change the impact/urgency values at any time
	<table><tr><td>Impact</td><td></td><td></td><td></td></tr><tr><td>Urgency</td><td>Low</td><td>Medium</td><td>High</td></tr><tr><td>Low</td><td>4</td><td>3</td><td>2</td></tr><tr><td>Medium</td><td>3</td><td>2</td><td>1</td></tr><tr><td>High</td><td>2</td><td>1</td><td>1</td></tr></table>
	⚠️Critical Problems (Priority=1) are excluded from this SQI calculation as they are covered by SQI05d.
	The SQI value for the final GQI will be an average of all profiled SQIs during the SC.
Applicable services/deliverables	SE.8.1.3 (Problems)
Minimum number of Measurements	20

5.7.1.3.11   SQI05c

SQI Attribute	SQI Attribute description
SQI Name	SQI05c
SQI Description	Measure the Critical Incident resolution time
Unit of Measurement of the SQI	%
SQI Target	95% "0 delay"
SQI Limit	90%
SQI Calculation	This SQI allows to assess the time elapsed between the moment the 3rd Level Critical incident notification is received by CUST-DEV3 and the moment the IT service operation is restored in its normal state (without reduction of quality of service) or the root cause is identified. If the latter is identified as a software defect, the criticality of the repair will be established in agreement with the system owner. The elapsed time is computed in working hours only and does not cover the time waiting for information requested by CUST-DEV3 to address the issue. $SQI05c = C_{IT}/C_{ALL}$ C_{ALL} is the total number of Critical incidents resolved by CUST-DEV3 during the reporting period and C_{IT}=the total number of Critical incidents resolved by CUST-DEV3 during the reporting period, where the resolution time is lower than or equal to the maximum resolution time as defined below The **maximum resolution time** is 4 Working-Hours

SQI Attribute	SQI Attribute description
	An **incident is resolved** when the IT service operation is restored in its normal state (without reduction of quality of service) or the root cause is identified. Incident **priority** will be set by the ITSM2 Lot1 contractor for 3rd level incidents according to the rules defined in ITSM FQP (Ref: 'ITSM Framework Quality Plan [R033]'). Incident **priority** is calculated based on **impact and urgency** when creating the call according to the following table: ⚠️DG TAXUD may request to change the impact/urgency values at any time. |Impact Urgency|Low|Medium|High
---	---	---	---
Low	4	3	2
Medium	3	2	1
High	2	1	1	 The SQI value for the final GQI will be an average of all profiled SQIs during the SC.
Applicable services/deliverables	SE.8.1.2.1 (Incidents)
Minimum number of Measurements	1

5.7.1.3.12 SQI05d

SQI Attribute	SQI Attribute description
SQI Name	SQI05d
SQI Description	Measure the critical Problem resolution time
Unit of Measurement of the SQI	%
SQI Target	95% "0 delay"
SQI Limit	90%
SQI Calculation	This SQI allows assessing the elapsed time between the moment the critical problem notification is received by CUST-DEV3 and the moment the Root Cause Analysis is performed and the root causes linked to this problem are detected. The elapsed time is computed in working hours only and does not cover the time waiting for information requested by CUST-DEV3 to address the issue. $SQI05d = C_{IT}/C_{ALL}$ C_{ALL} is the total number of critical problems (resolved by CUST-DEV3 during the reporting period and C_{IT}=the total number of critical resolved by CUST-DEV3 during the reporting period, where the resolution time is lower than or equal to the maximum resolution time as defined below The **maximum resolution time** is 1 Working-Day A **problem is resolved** when a Root Cause Analysis is performed and

SQI Attribute	SQI Attribute description
	the root causes linked to this problem/event are detected. The Closure Request is triggered when the problem report is available. Problem **priority** will be set by the ITSM2 Lot1 contractor for 3rd level calls according to the rules defined in ITSM FQP (Ref: 'ITSM Framework Quality Plan [R033]'). Problem **priority** is calculated based on **impact and urgency** when creating the call according to the following table: ⚠️ DG TAXUD may request to change the impact/urgency values at any time <table><tr><td>Impact Urgency</td><td>Low</td><td>Medium</td><td>High</td></tr><tr><td>Low</td><td>4</td><td>3</td><td>2</td></tr><tr><td>Medium</td><td>3</td><td>2</td><td>1</td></tr><tr><td>High</td><td>2</td><td>1</td><td>1</td></tr></table> The SQI value for the final GQI will be an average of all profiled SQIs during the SC.
Applicable services/deliverables	SE.8.1.3 (Problems)
Minimum number of Measurements	1

5.7.1.3.13   SQI06

The information given in section 5.7.1.3.9 applies with the following changes:

SQI name: SQI06

SQI description: Measure the resolution time for RfI

SQI Calculation: Incident is to be replaced by RfI

The maximum resolution time is 5 working-days for RfIs

Applicable services/deliverables: SE.8.1.1.2 (RFI)

Minimum number of Measurements: 5

5.7.1.3.14   SQI07

SQI Attribute	SQI Attribute description
SQI Name	SQI07
SQI Description	Measure the number of (p)SAT and/or Qualification iterations per software release
Unit of Measurement of the SQI	Number of (p)SAT and/or Qualification iterations
SQI Target	1 (p)SAT and/or Qualification iteration
SQI Limit	3 (p)SAT and/or Qualification iterations
SQI Calculation	Count the number of test iterations of (p)SAT required for the software release.
Applicable services/deliverables	All
Minimum number of Measurements	1

5.7.1.3.15   SQI08

SQI Attribute	SQI Attribute description
SQI Name	SQI08
SQI Description	Measure the time to escalate to the Commission for critical incidents/major service risks
Unit of Measurement of the SQI	%
SQI Target	95% less than 2 hours during CUST-DEV3 contract working hours
SQI Limit	90% less than 2 hours during CUST-DEV3 contract working hours
SQI Calculation	SQI08 = IEIT/ITOT x 100 Where IEIT is the number of relevant incidents (see below) where the escalation was made in less than 2 hours and ITOT is the total number of relevant incidents (see below) recorded during the reporting period. The relevant incidents are critical incidents and/or incidents introducing risks/prolonged delays on the system security.
Applicable services/deliverables	All
Minimum number of Measurements	5 events to escalate

5.7.1.3.16   SQI09

SQI Attribute	SQI Attribute description
SQI Name	SQI09
SQI Description	Measure the delay to deliver an acceptable offer/proposal
Unit of Measurement of the SQI	working days
SQI Target	"0 delay" for review
SQI Limit	2 working days
SQI Calculation	The actual delivery date is the date when the offer/proposal is submitted to the Commission for acceptance via e-mail to the requested address. If the offer/proposal must be submitted several times for acceptance: • The actual delivery date is the date of the last submission for acceptance; • For each re-SfA, the number of days to be considered in the calculation of this SQI will be the number of days between the moment the contractor received the rejection of the offer/proposal from the Commission and the moment the new version of the document has been submitted for acceptance. The planned delivery date is defined in the RFO/RFE; The SQI will be calculated for every reporting period. The SQI equals to the average of the normalised and profiled value of the individual values of $(A_D - P_D)$. where: A_D is the actual delivery date of each offer/proposal, which has been tagged as having a delay impact defined in the SQI Description above, which was actually delivered for Final acceptance during the reporting

SQI Attribute	SQI Attribute description
	period.

and

P_D is the requested delivery date of the estimate/offer as indicated in the RfE/RfO

Note: if $A_D < P_{D\ then}$ the delay is to be considered as zero.

The average of each occurrence of this SQI will constitute the value to be used in the GQI calculation. |
| Applicable services/deliverables | DLV.0.4.1 & DLV.0.4-2 |
| Minimum number of Measurements | 1 |

5.7.1.3.17 SQI10

SQI Attribute	SQI Attribute description
SQI Name	SQI10
SQI Description	Measure the process compliance as assessed by self-assessment, internal and external audits, audit by the Commission
Unit of Measurement of the SQI	Number of critical and/or significant audit recommendations open per assessment or audit
SQI Target	Maximum 2 critical and/or significant audit recommendations open per assessment or audit
SQI Limit	Number of critical and significant recommendations open less than 15
SQI Calculation	Count the number of critical and significant audit recommendations open per assessment or audit
Applicable services/deliverables	All
Minimum number of Measurements	1

5.7.1.3.18 SQI11

SQI Attribute	SQI Attribute description
SQI Name	SQI11
SQI Description	Measure the conformance to security controls (number of critical findings during security audit)
Unit of Measurement of the SQI	Number of critical findings during a security audit
SQI Target	Maximum 1 critical audit finding open per security audit
SQI Limit	Maximum 3 critical audit finding open per security audit
SQI Calculation	Count the number of critical findings during a security audit.
Applicable services/deliverables	All
Minimum number of Measurements	1

5.7.1.3.19 SQI12

SQI Attribute	SQI Attribute description
SQI Name	SQI12
SQI Description	Measure the corrective issue resolution hotfix delay
Unit of Measurement of the SQI	working days
SQI Target	0 working day delay
SQI Limit	1 working day delay
SQI Calculation	The SQI measures the sum of delays expressed in days for the reporting period

The actual delivery date is the date when the hotfix (fixing the Root Cause of the issue) is delivered to the ITSM2 contractor for deployment (incl. testing).

The planned hotfix delivery date is, depending on the priority unless a different date is agreed with DG TAXUD in writing:

   Low: Next release (as agreed with TAXUD) after related issue is resolved

     Medium: 5 Working-Days after related issue is resolved

     High: 3 Working-Days after related issue is resolved

     Critical: 1 Working-Day after related issue is resolved

The SQI will be calculated for every reporting period.

The SQI for the reporting period equals to the normalised, then profiled value of the sum of the $(A_D - P_D)$ values

where:

A_D is the actual delivery date of each hotfix delivered during the reporting period

And

P_D is the planned delivery date of the hotfix

Note: if $A_D < P_{D \ then}$ the delay is to be considered as zero.

The SQI value for the final GQI will be an average of all SQIs during the SC. |
| Applicable services/deliverables | All |
| Minimum number of Measurements | 1 hotfix to be delivered |

5.7.1.3.20   SQI13

SQI Attribute	SQI Attribute description
SQI Name	SQI13
SQI Description	Measure the number of complaints received and confirmed by DG TAXUD
Unit of Measurement of the SQI	Number of occurrence
SQI Target	0
SQI Limit	2
SQI Calculation	All complaints will be collected via the Commission. All confirmed complaints will be forwarded by the Commission to the contractor for inclusion in the MPR, detailed analysis and follow up. The contractor must record all received complaints in the MPR.

The contractor must provide a detailed analysis report linked to each complaint following the agreed and documented procedure. The number of complaints to be counted for this SQI is the number of complaints reported in the MPR. |
| Applicable services/deliverables | All |
| Minimum number of Measurements | 1 |

5.7.1.3.21 SQI14

SQI Attribute	SQI Attribute description
SQI Name	SQI14
SQI Description	Measure that the actions agreed with DG TAXUD have been implemented within the given timeframe. This is limited to actions tagged as: "SQI14-actions"
Unit of Measurement of the SQI	working days
SQI Target	0 delay
SQI Limit	3 working days
SQI Calculation	$SQI = A_{EA}-P_{EA}$ where: A_{EA} is the actual date for the action's end and P_{EA} is the planned date for the action's end The actual date for the action's end is the date when the contractor finishes the implementation of the action (i.e. closes it). The decision to close an action is taken during the meeting that follows the one during which the action was raised, or by an e-mail confirmation from DG TAXUD to an e-mail sent by the contractor requesting the closure (typically an End of Action Report). When closing an action, an e-mail will be sent to the action requestor. If the action requestor refuses the closure of the action, the action is re-opened, but the time between the sending of the action closure request and the reply of the action requester is not taken into account in the calculation of this SQI. The planned date for the action's end (due time) has to be agreed during the meeting, when the action is raised. This date may be readjusted within the next 2 working days by mutual agreement. The SQI will be calculated for each registered action (tagged as: "SQI14-actions") closed during the reporting period, and the value will be normalised, then profiled. The SQI reported in the MPR will then be the average of the several profiled SQIs for the registered actions closed during the reporting period. The SQI value for the final GQI will be an average of all profiled SQIs during the SC.
Applicable services/deliverables	The actions covered are requested by DG TAXUD, and identified as actions flagged under this SQI.
Minimum number of Measurements	5 actions

5.7.1.3.22   SQI15

SQI Attribute	SQI Attribute description
SQI Name	SQI15
SQI Description	Delay in delivering a patch during a PSAT session
Unit of Measurement of the SQI	working days
SQI Target	0 working day delay
SQI Limit	1 working day delay
SQI Calculation	The SQI measures the sum of delays expressed in days for the reporting period. The actual delivery date is the date the patch is delivered to the ITSM2 contractor for installation. The planned delivery date is 1 working day after CUST-DEV3 contractor is notified, unless another deadline is agreed with DG TAXUD in writing. The SQI will be calculated for every reporting period. The SQI for the reporting period equals to the normalised, then profiled value of the sum of the $(A_D - P_D)$ values where: A_D is the actual delivery date of each patch delivered during the reporting period and P_D is the planned delivery date of the patch *Note: if $A_D < P_{D\ then}$ the delay is to be considered as zero.* The average of each occurrence of this SQI will constitute the value to be used in the GQI calculation.
Applicable services/deliverables	All
Minimum number of Measurements	1 patch to be delivered

5.7.1.3.23   SQI16

SQI Attribute	SQI Attribute description
SQI Name	SQI16
SQI Description	Measure the Training/workshop appraisal
Unit of Measurement of the SQI	%
SQI Target	100%
SQI Limit	79%

SQI Attribute	SQI Attribute description
SQI Calculation	Per event the percentage is formed of the number of participants whose appraisal is higher or equal than 8 points out of 10. SQI = Average $(T_1, T_2, T_3...)$ Where T refers to the training sessions / workshops held in the reporting period Tn = ((Number of trainees with an overall course assessment >= 8) / total number of trainees)*100 for the given training session / workshop
Applicable services/deliverables	All trainings / workshops provided by the contractors, except if explicitly excluded by DG TAXUD.
Minimum number of Measurements	1 training/workshop

5.7.1.3.24   SQI17

SQI Attribute	SQI Attribute description
SQI Name	SQI17
SQI Description	Measure the satisfaction of the users with the services provided by the CUST-DEV3 contractor
Unit of Measurement of the SQI	**Notation:** • Very satisfied (Value=5) • Somewhat satisfied (Value=4) • Neither satisfied nor dissatisfied (Value=3) • Somewhat dissatisfied (Value=2) • Very dissatisfied (Value=0)
SQI Target	Very satisfied (Value=5)
SQI Limit	Somewhat satisfied (Value=4)
SQI Calculation	The satisfaction will be measured when requested by DG TAXUD, but at least once a year. It will be measured by a survey based on an agreed set of questions and sent to a user population defined by DG TAXUD. Each answer will be collected and assigned its associated value. One occurrence of the two extreme values of the answer set will be removed and the remaining values averaged.
Applicable services/deliverables	Agreed set of services and deliverables (by default: ALL)
Minimum number of Measurements	5 answers

5.7.1.3.25   SQI18

SQI Attribute	SQI Attribute description
SQI Name	SQI18
SQI Description	Effectiveness of comments in relation to technical documents review
Unit of Measurement of the SQI	%
SQI Target	90% of the comments to be implemented
SQI Limit	85% of the comments to be implemented

SQI Attribute	SQI Attribute description
SQI Calculation	$SQI = C_{IM}/C_{ALL}$ Where: C_{ALL} is the total number of review comments issued by the CUST-DEV3 contractor in relation to technical review of documents in the reporting period and C_{IM} is the total number of comments out of the above which are considered as "to be implemented" by the author of the reviewed documents. In case of disagreement regarding the relevance of a comment, the Commission decides on the classification.
Applicable services/deliverables	All
Minimum number of Measurements	100 comments

5.7.1.3.26 SQI19

SQI Attribute	SQI Attribute description
SQI Name	SQI19– **Direct Liquidated Damages**
SQI Description	Measure if the initial value of the "Total number of months experience in each key profile (refer to section 4.2) that will be assigned full time to the project" remains at an acceptable level defined by the SQI Limit below.
Unit of Measurement of the SQI	%
SQI Target	95%
SQI Limit	85%
SQI Calculation	Total months of professional experience in key profile (refer to section 4.2) assigned full time to the project. / Total months of professional experience in key profile (refer to section 4.2) proposed in the bid
Direct Liquidated Damages	⚠ Each month where the SQI limit is not reached will induce a direct liquidated damage of **10 times the daily rate of each person and profile concerned per month.**
Applicable services/deliverables	WP.0.5.4
Minimum number of Measurements	1^{14}

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[14] First calculation 8 weeks after the signature of the first Specific Contract.

5.7.1.3.27   SQI20

SQI Attribute	SQI Attribute description
SQI Name	SQI20 - **Direct Liquidated Damages**
SQI Description	The number of man-days DG TAXUD staff allocated to services that should be provided by the CUST-DEV3 contractor who fails to provide these services. DG TAXUD should not have to fulfil functions that are to be provided by the contractor. The objective of this SQI is to measure such situations
SQI Target	0 days
SQI Limit	5 days
SQI Calculation	Sum of the number of man-days that DG TAXUD officials or other staff performed work duties to cover the deficiency of the contractor.
Direct Liquidated Damages	⚠ Each day above the SQI limit (5 days), will induce a direct liquidated damage of **1.000 €** per day person and per day with a maximum of **50.000 €** per month.
Applicable services/deliverables	All
Minimum number of Measurements	1

5.7.1.3.28   SQI21

SQI Attribute	SQI Attribute description
SQI Name	SQI21 - **Direct Liquidated Damages**
SQI Description	Measure that the team in charge of the CUST-DEV3 contractor providing fixed-price services, is staffed with the correct staff profiles (refer to section 4.2) as proposed in the CUST-DEV3 tender and that they are allocated and remain staffed to the activity as of the signature of the first Specific Contract
Unit of Measurement of the SQI	This SQI will measure the occurrence of one of the following events: • (1) The key staff profiles of the Take-over team are not staffed according to the offer of the CUST-DEV3 tenderer by full time staff 1 month after the start of the first Specific Contract; • (2)The staff providing fixed-price services (refer to section 3.6.2 for overall management, to section 3.6.8 for IT management and support architects) have a turnover of more than 2 persons over a 12 months sliding window.
Direct Liquidated Damages	⚠ For situation (1) above (except for "force majeure"), the liquidated damage will represent **20%** of the total take-over costs per month where the situation occurs. ⚠ For situation (2) above (except for "force majeure"), the liquidated damage will represent **20%** of the total costs of the FP services (refer to section 3.6.2 for overall management, to section 3.6.8 for IT management and support architects) of the applicable Specific Contract for each month where the situation occurs.
SQI Target	0 occurrences
SQI Limit	0 occurrences
SQI Calculation	The full staff sheet will be provided as an annex to the MPR; any movements to key personal will be clearly indicated.
Applicable services/deliverables	ALL
Minimum number of Measurements	NA

5.7.1.3.29 SQI22

SQI Attribute	SQI Attribute description
SQI Name	SQI22 - **Direct Liquidated Damages**
SQI Description	Measure the delay in completing the take-over within the foreseen Take-over period.
Unit of Measurement of the SQI	This SQI will measure the delay in completing the Take-over activities: Each day of delay within a single month will be considered as a full month delay (e.g. for January, 1 day delay or 31 days delay) will both be considered as a full month delay.
Direct Liquidated Damages	⚠ Each month of delay will induce **40.000 €** liquidated damage up to a maximum of 6 months (240.000 €) at which time the contract is terminated by DG TAXUD.
SQI Target	0 occurrences
SQI Limit	0 occurrences
SQI Calculation	The planning will be provided as an annex to the MPR; any risks will be clearly indicated.
Applicable services/deliverables	Take-over
Minimum number of Measurements	1 per month during the take-over period

5.7.1.3.30 SQI23

SQI Attribute	SQI Attribute description
SQI Name	SQI23
SQI Description	Implementation of agreed actions following an audit
Unit of Measurement of the SQI	Number of agreed actions
SQI Target	100% implementation
SQI Limit	100% implementation
SQI Calculation	Count the number of implemented actions
Applicable services/deliverables	All
Minimum number of Measurements	1

5.7.1.3.31 SQI24

SQI Attribute	SQI Attribute description
SQI Name	SQI24
SQI Description	Measure the correctness of IFP counting proposed by the CUST-DEV3 contractor
Unit of Measurement of the SQI	Number of occurrence of incorrect IFP counting
SQI Target	0
SQI Limit	2
SQI Calculation	All offers from the contractor based on IFP counting will be subject to validation by the Commission. The number of incorrect IFP counting occurrences for this SQI is the number of these occurrences reported in the MPR.
Applicable services/deliverables	All
Minimum number of Measurements	1

5.7.2   The KPIs

5.7.2.1   KPI01 - Measure the quality of a deliverable (SfR)

The value to be reported is the ratio between the number of documents rejected and not rejected at SfR during the reporting period and having to be resubmitted for review.

5.7.2.2   KPI02 - Measure the quality of a deliverable (SfA)

The value to be reported is the ratio between the number of documents rejected at SfA (meaning to be resubmitted for SfA) and the number of documents not rejected at SfA.

5.7.2.3   KPI03 - Measure the time to notify the Commission delays of deliverables categorised with major or high impact for the Commission

The value to be reported is the number of hours between the notification about the delay in delivery of deliverables categorized with major or high impact for the Commission and the planned delivery date.

5.7.2.4   KPI04 – Measure the number of retrospective changes performed on the CMDB & DML

The value to be reported is the ratio between the retrospective changes (correcting or adding data) performed during the reporting period and the total number of updates performed on the CMDB & DML during the same reporting period.

5.7.2.5   KPI05 - Measure the number of assigned calls remaining open

The values to be reported are the number of open calls that are assigned on the last day of the reporting period to CUST-DEV3. The values are to be detailed by Service Call category.

5.7.2.6   KPI06 - Measure the number of calls assigned during the reporting period

The values to be reported are the number of calls that were assigned during the reporting period to CUST-DEV3. The values are to be detailed by Service Call category.

5.7.2.7   KPI07 - Measure the number of unassigned calls during the reporting period

The values to be reported are the number of unassigned calls during the reporting period from CUST-DEV3. The values are to be detailed by Service Call category.

5.7.2.8   KPI08 - Measure the number of defects reported during PSAT

The value to be reported is the number of defects detected and reported by the operational contractor during PSAT activities during the reporting period. The values are to be detailed by CI.

5.7.2.9   KPI09 - Measure the number of defects reported during SAT

The value to be reported is the number of defects detected and reported by the operational contractor during SAT activities during the reporting period. The values are to be detailed by CI.

5.7.2.10 KPI10 - Measure the number of comments in relation to technical documents review

The value to be reported is the number of comments made by the CUST-DEV3 contractor during technical document reviews performed during the reporting period.

5.7.2.11 KPI11 - Measure the number of bugs reported per CI (systems/application/component) per reporting period

The values to be reported are the number of defects detected and reported by the operational contractor during the reporting period in the production environment. The values are to be detailed by CI.

5.7.2.12 KPI12 - Measure the number of bugs/features incorrectly implemented

The values to be reported are the number of defects re-opened (as the result of incorrectly implemented changes) during the reporting period. The values are to be detailed per CI.

5.7.2.13 KPI13 - Measure the number of changes reported per CI (systems/application/component) per reporting period

The values to be reported are the number of new changes registered per reporting period. The values are to be detailed by CI and split between corrective/evolutive changes.

5.7.2.14 KPI14 - Measure the number of patches delivered per CI (systems/application/component) per reporting period

The value to be reported is the number of new patches delivered during the reporting period. The value is to be detailed by CI.

5.7.2.15 KPI15 - Measure the number of releases delivered per CI (systems/application/component) per reporting period

The value to be reported is the number of new releases delivered during the reporting period. The value is to be detailed by CI.

5.7.2.16 KPI16 - Measure the unavailability times due to deployments of CUST-DEV3 related CIs

The value to be reported is the time linked to each deployment in the production environment of a CUST-DEV3 related CI. The value is to be detailed by CI.

5.7.2.17 KPI17 - Measure the number of maintenance licences for which the expiry reporting (not later than 90 days before the end of the contract) was late per reporting period

The value to be reported is the number of maintenance licences for which the contract expiry date was within 90 days during the reporting period and for which the expiry reporting to DG TAXUD was sent late.

5.7.2.18 KPI18 - Measure the number of CUST-DEV3 documents for which more than 50 / 100 / 200 comments were raised

The value to be reported is the number of CUST-DEV3 documents for which more than 50 / 100 / 200 comments were raised. The value is to be detailed per 50 / 100 / 200 comments.

5.7.2.19 KPI19 - Measure the number of documents for which more than 15 / 30 / 50 comments are to be discussed during the Review Meeting

The value to be reported is the number of documents for which more than 15 / 30 / 50 comments are to be discussed during the Review Meeting. The value is to be detailed per 15 / 30 / 50 comments to be discussed.

5.7.3   The General Quality Indicator

In order to measure the general quality of contractual activities, General Quality Indicators (GQI) will be defined during the implementation of the Framework Contract. The GQIs are established as a composition of the (some of the) SQIs listed above.

GQIs can be measured either at Specific Contract level (in the case of Specific Contracts for Continuous Services or Fixed-price Services) or at RfA level (in case of Specific Contracts for On-demand Services).

The GQI is the weighted average of so called contractual SQIs[15] as a subset of all the SQIs. It allows a global assessment of the QoS for all services and deliverables.

To each contractual SQI, a normalised weight factor[16] (*w*) has to be associated.

In formula, the General Quality Indicator is defined as:

$$\text{GQI} = \sum_i (SQI_i \times w_i)$$

The weights of the activated SQIs within a GQI will be defined by DG TAXUD at SC or RfA level. In case one or several contractual SQIs cannot be calculated because of an insufficient number of measurements to reach the set "minimum number of measurements", then their contributions to the GQI are removed and the weights of the remaining contractual SQIs are proportionally rescaled to bring their sum (sum of the weights) back to one.

5.7.4   Liquidated damages

The liquidated damages related to deficient Quality of Service (QoS) are derived directly from the GQI calculation. The GQI and the liquidated damages will be calculated at the end of the service provision of a Specific Contract. Liquidated damages may be applied to the Service Provider in the framework of the Contractual OLA (refer to section 5.3.1 for more details on the OLA requirements).

⚠ This method is not applicable for the SQIs having the financial consequence of **Direct Liquidated Damages**. Please refer to the description of these SQIs (SQI19➔ SQI22) for the mode of calculation of the related direct liquidated damages.

From GQI to liquidated damages calculation:

The amount of liquidated damages at the end of the Specific Contract or RfA is calculated according to the following "P" function:

If $\text{GQI} \leq -1$ ⇒   Liquidated damages = 20 % * value of the SC or RfA

If $-1 < \text{GQI} < 0$ ⇒   Liquidated damages = 20 % * value of the SC or RfA * *abs*(GQI);

If $\text{GQI} \geq 0$ ⇒   Liquidated damages = 0

abs means *absolute-value*.

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[15]   For sake of clarity, as of now, profiled SQI will be simply called "SQI".

[16]   "Normalised weight" means that the sum of all the weights for all SQI participating in a GQI is equal to 1.

The main idea behind the "P" function is to:

- Have **no** liquidated damages when the GQI is positive, indicating overall positive QoS for the duration of the SC or RfA.

- Have liquidated damages linearly proportional to all amounts that have been ordered in the SC or RfA, when GQI is negative.

- And limit the maximum amount of liquidated damages to 20% of all amounts that have been ordered in the SC or RfA when GQI gets below -1, indicating that the global QoS during the SC or RfA has been very negative.
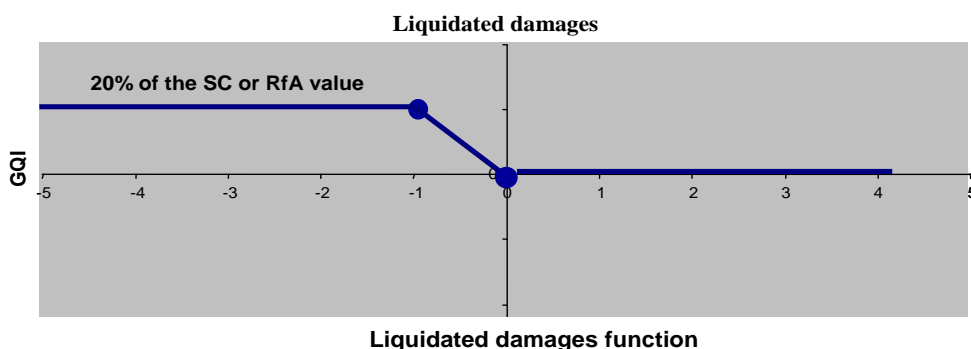

Figure 5 - Liquidated damages application

Liquidated damages are calculated at the end of each Specific Contract or RfA and applied on the last payment related to the Specific Contract or RfA, when applicable.

The liquidated damage will take the form of an amount to be deducted from the last invoice for the Specific Contract or RfA.

5.8   Internal quality system of the contractor

The contractor must operate an effective internal quality system in order to deliver according to expectations and minimise risks raised around its services and increase the resilience of them. The contractor will run internal QA, QC and risk analysis processes of which it will keep the internal records available to the Commission.

The contractor will proceed periodically to self-assessment and internal audit. The internal audit will be conducted by internal auditors of the contractor offering reasonable assurance of segregation of reporting with the delivering team of the contractor.

The contractor must appreciate that any defect in its quality system will result in a quality burden shifting to the Commission and in a decrease of quality of service for the users.

5.9   Critical quality success factors

The Commission regards the following as critical quality success factors for the delivery of the contract:

- execution of the contract in compliance the Technical Annex (this document), FQP, Specific Contracts and their technical annexes;

- service performance and achievements in relation to targets set forth in the contractual OLA;

- accountable, proactive, and customer driven project management;

- high user satisfaction levels;

- high quality level of deliverables submitted for review to the Commission;

- proactive behaviour in all situations, in the best interest of the Commission;
- user oriented Service Desk complemented with timeliness and quality of deliveries and services,
- continuous improvement by recycling all lessons learned and full implementation of CSIP;
- predictable behaviour and quality;
- transparent, accountable and service oriented relationship between all involved parties (NAs, other contractors, DIGIT/DC);
- knowledge of applications and systems;
- rapid and visible progress in the transformation;
- highly competent and qualified staff assigned to the project.

6. Infrastructure and tool requirements

6.1 Data Centres

At the time of writing, the infrastructure, on which the central Information Systems (IS) of DG TAXUD are running, is provided by three different entities: **DIGIT's Data Centre,** located in Luxembourg, the **incumbent ITSM contractor** and the **incumbent CCN/TC contractor**.

- DG **DIGIT** is operating its data centre activities from Luxembourg, where it hosts several computer rooms distributed over multiple locations for contingency. It interconnects all buildings of the Commission via its private network (SNET) and provides controlled and secured access to external networks via its Telecom centres (one in Belgium, the other in Luxembourg).

- The **ITSM** contractor is hosting a number of DG TAXUD's central systems in one data centre near Brussels. It is also using a Telecom centre to interconnect the Internet access used by the different teams located in several countries of the Union.

- The **CCN/TC** contractor hosts part of the SPEED infrastructure as well as central CCN services. Their data centre is located in Haasrode, Belgium while the staff and Service Desk are in Zaventem, Belgium.

All data centres have an interconnection with the CCN/CSI private network and the contractors must request the configuration of their own development and test environments (for example, in terms of queues) on these CCN gateways that are managed by the ITSM contractor.
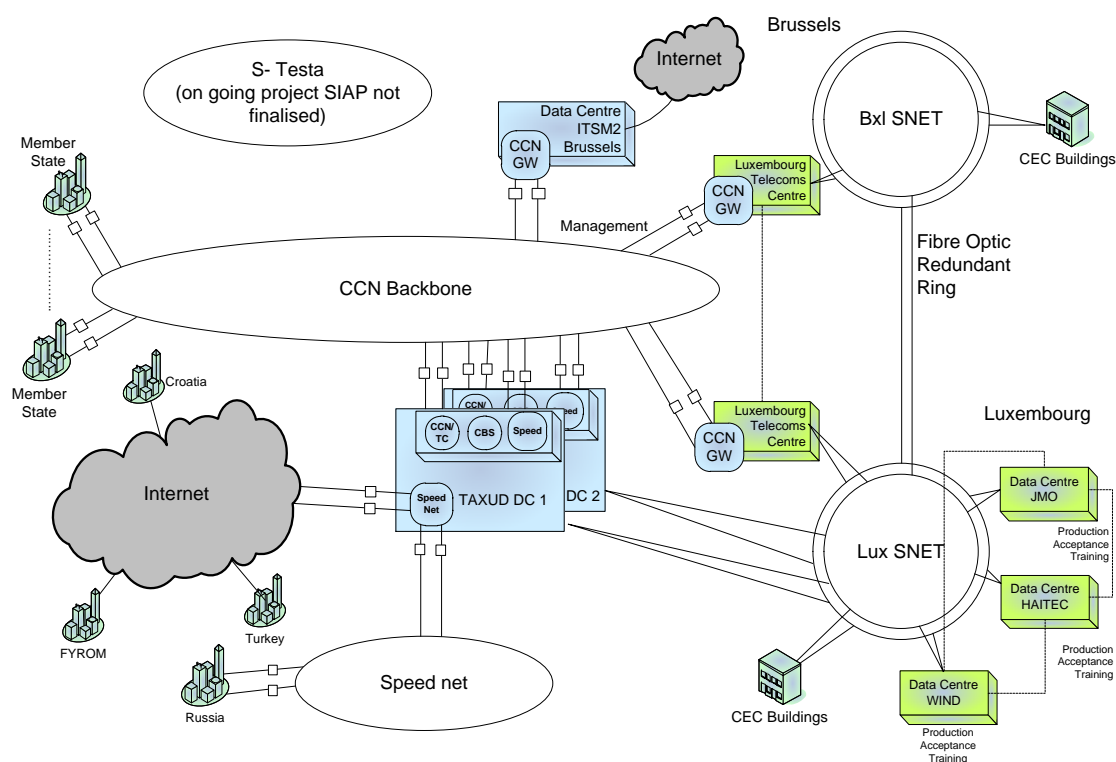

Figure 6 - Distribution and location of DG TAXUD's target ICT infrastructure

In 2012, DG TAXUD launched a project to consolidate all of the Contractors' respective infrastructures into **two redundant Tier IV level data centres** located in two distinct locations in **Luxembourg** (see [R038], [R039] for more details). The connectivity between the two data centres located in Luxembourg and the incumbent data centres (ITSM and CCN/TC) will be provided by DG TAXUD. The new data centres will be operated by the ITSM2 Lot1 contractor.

Figure 6 illustrates a global picture of the target infrastructure in terms of its distribution and location. The transition to this infrastructure will be carried out in two phases:

In the **first phase**, the infrastructure of both incumbent contractors (i.e. ITSM and CCN/TC) will be superseded by the new data centres (TAXUD DC 1 and TAXUD DC 2). There will be no major transformations during this phase. Phase 1 will be initiated by DG TAXUD along with the CCN/TC and ITSM incumbent contractors. The target date for completion of these activities will be no later than November 2013.

In the **second phase**, the ITSM2 Lot1 contractor will redesign and transform these new data centres and infrastructures as needed to be able to guarantee high availability and resilience to the Member States and other IT stakeholders.

The ITSM2 Lot1 contractor will provide the following services to the CUST-DEV3 contractor in the context of the CUST-DEV3 development area within the new DG TAXUD data centre:

- Housing covering the unpacking of infrastructure delivery at arrival, installation of infrastructure in DG TAXUD's data centre racks, providing electricity and network connectivity;

- Installation of the **initial** operating system – its maintenance and subsequent upgrades will be the responsibility of the CUST-DEV3 contractor;

- Configuration of the virtual environments (e.g. VMWare) and Solaris Zones;

- Storage;

- CCN connectivity;

- Availability monitoring;

- Backup and restore functions.

This infrastructure will be available to the CUST-DEV3 contractor at the start of the takeover and the initial capacity will be based on a 15% increase of the current capacity available to the incumbent contractor. The CUST-DEV3 contractor will be able to recommend and request updates to this configuration after the takeover period. The currently capacity is as follows:

SPARC Platform

- CPU: 14 x SPARC 64 VII+ (CPU 2.66 GHz)

- Memory: 224 GB (64+64+96)

- Raw (non-RAID) storage capacity: 9 TB

Intel Platform

- CPU: 10 CPU XEON 5540 2.5 GHz

- Memory: 38 GB (16+16+6)

The CUST-DEV3 contractor is expected to provide all other services related to the infrastructure as defined in WP.8.4.1 and WP.8.4.2.

The CUST-DEV3 contractor will be responsible for capacity management in terms of defining its infrastructure requirements for the duration of the Framework Contract. The CUST-DEV3 contractor must ensure that any required requests for updates to the infrastructure (e.g. storage capacity) are made in a timely manner so as not to put project timelines at risk.

The CUST-DEV3 contractor is expected to use the infrastructure outlined above for all activities related to integration and testing and delivery activities. The FAT (Factory Acceptance Test) environments will be used to test the installation procedure and the functionality of the application releases and patches according to the test documentation (MTP/TDS/ATP), including performance and stress testing. Activities preceding the integration phase (i.e. programming and unit testing) should be carried out on the CUST-DEV3 contractor's own environments as described in section 6.3.

6.2 Future Evolutions

The CUST-DEV3 contractor is expected to take over all infrastructure and tools in their current "as-is" state. The infrastructure and tool requirements will evolve in line with new technological opportunities and the phase out of existing and legacy components. DG TAXUD cannot forecast all possible evolutions at the beginning of the Framework Contract and has, therefore, provisioned a reserve for important IT transformations (refer to 3.6.14.1and 3.6.14.2).

The following sub-sections outline known projects that are already in their inception phases and which may have a future impact on the infrastructure to be used by the CUST-DEV3 contractor.

6.2.1 CCN2 Platform

The infrastructure currently used by the incumbent CCN/TC contractor will be split into "support and operations" related infrastructure (the CCN/TC testing environment) which will be taken over by ITSM2 Lot 1 (planned for quarter 1, 2013) and "development and integration" related infrastructure (the CCN/TC development environment) to be taken over by the CCN2-DEV contractor. After this, the build and test and design activities for the new CCN2 Platform will be launched. All providers, including the CUST-DEV3 contractor, will be expected to migrate to this new platform. No specific dates can be provided regarding the CCN2 platform implementation at the time of writing of this Invitation To Tender.

The three key areas of the CCN2 platform are as follows:

- SOA Backplane – which incorporates the functionalities needed to enable any-to-any, secure, reliable, scalable, manageable and high-performance communication across composite applications and processes, service provider applications and external domains in a technologically heterogeneous environment;

- SOA Governance – which includes the functionalities required to support the governance processes associated with that particular SOA initiative, including a registry/repository and SOA life cycle management tools (configuration & change management);

- SOA-Related Capabilities – which are functionalities required to support advanced requirements of the SOA Backplane and SOA Governance, such as Identity & Access Management, Business Activity Monitoring, management of partner communities, Master Data Management and Managed File Transfer.

6.2.2 SOA/BPM

DG TAXUD is currently investigating the possibility to transition to a Service-Oriented Architecture application development paradigm. If the decision is taken to make this transition, the impact on the infrastructure at the datacentre will be analysed in detail and communicated to the CUST-DEV3 contractor.

6.3 Infrastructure at CUST-DEV3's premises

For the successful execution of all work packages, it is expected that the CUST-DEV3 contractor will ensure the provision of certain infrastructure at their premises. This standard infrastructure for daily activities should be supplied by the CUST-DEV3 contractor at no additional cost to DG TAXUD.

The CUST-DEV3 contractor must specify, size, provide, host, install, configure, stage in, fine tune, operate, monitor and administer any necessary office, ICT and telecoms infrastructure. Minimum requirements for the office, development and network infrastructures are described below.

The contractor should also put in place the necessary insurance to cover all infrastructure against the usual risks (e.g. fire, flood, thefts).

Office Infrastructure

The basic office infrastructure should cover at least (indicative list and not exhaustive):

- an adequate office environment, including telephone, fax and photocopying facilities;
- conference call facilities;
- access to the Internet;
- one industry standard PC (personal computer) or laptop for each person that is configured to fit their specific role (e.g. a developer and a manager would require different set-ups and software); tools compatible with the Commission Office automation environment (refer to section 6.6); suitable printing and file server facilities;
- individual e-mail addresses and Web access for each person;
- functional e-mail addresses as appropriate;
- a dedicated meeting room for up to 16 people (with telephone access) available for meetings with the Commission and/or other contractors;
- a training room with PCs;

Access to the office infrastructure must be restricted to pre-defined authorised persons (contractor's team members, the Commission's representatives and occasional accompanied visitors, such as staff members of the other contractors).

Local Development Infrastructure

For the remote development work, it is recommended that at least one lab is set up containing (but not limited to) the following facilities:

- Workstations;
- A database server;
- An email server;
- A file server;
- An FTP server;
- A proxy;
- A demonstration environment remotely accessible by DG TAXUD.

Network services

- The contractor must provide network connection possibilities to the DG TAXUD data centre according to the required services to perform (development, testing, transition and operational support services). These connections must be compliant with the applicable security requirements;
- facilities for Internet meetings/conferencing/learning/collaborative environment.

6.4 Hardware/Software/Maintenance Acquisition Channel

If, for some reason, DG TAXUD is unable to procure necessary hardware or software, the CUST-DEV3 contractor may be requested to make such procurements on behalf of DG TAXUD. For example, this might include the procurement of a licence for usage at within the DG TAXUD datacentre, or hardware or software to be used at the CUST-DEV3 contractor's own site. This procedure is described in work package WP.8.4.3.

6.5   Tools

The tenderer should propose **tools** that will be used to automate the processes as much as possible for the services to be performed in the context of the Framework Contract. This also includes tools for supporting the management of and reporting on the provision of those services.

The acquisition, deployment and operation of these tools will either be part of the unit price linked to the provided service or be covered by WP.8.4.3.

All the **interfaces/links/plug-ins** between the proposed tools should be described including the level of proposed automation. The contractor will also have to support DG TAXUD to interface with third party developed applications or Service Management related tools.

During the Framework Contract, improvements to the proposed tools or new tools could be introduced via the CSIP programme (see **WP0.12**) or on DG TAXUD request. DG TAXUD could also provide **new tools** to the contractor to replace the tools already in place. The migration to these tools will be planned and managed through an on demand activity.

DG TAXUD will provide the CUST-DEV3 contractor with some service management related tools which will be maintained and operated by DG TAXUD in collaboration with the operational contractor, ITSM2. More information concerning the Synergia Programme can be found in section 7.

DG TAXUD and other parties identified by DG TAXUD must have, at least, read-only access to all the tools, COTS and their related data that will be set-up and used in the context of the Framework Contract.

Improvements to the currently recommended tools and/or processes can also be proposed in the tenderer's offer.

6.5.1   Service support and monitoring tools

Please refer to section 7 for details on the Synergia Programme.

The incumbent contractor is using Rational CearQuest and ClearCase to support the service support and monitoring requirements. The contractor will take over this setup but should be prepared to evolve towards Rational Team Concert such to be able to have more monitoring possibilities and evolve towards a better alignment with the tool infrastructure used by the ITSM2 contractors.

The CUST-DEV3 contractor will be required to use **Synergia SM** provided by DG TAXUD for some of the support services (Please refer to section 7).

6.5.2   Development and test related Tools

The CUST-DEV3 contractor must setup and use development and test tools to automate the development and test processes as much as possible. In the offer, the tenderer should include details of which tools are proposed in this context.

The tenderer should take into account and align with the development and test related tools currently used by the incumbent contractor from the IBM® Rational toolset, including ClearCase, ClearQuest and Rational Team Concert®.

6.5.3   Modelling Tools

DG TAXUD makes use of the ARIS tool for modelling and design of the Business Specifications (including BPMs) and IT Architecture artifacts. The tenderer will ensure the necessary expertise and capacity to provide support in terms of the usage, administration and customisation of the tool in the most efficient and effective manner.

At present DG TAXUD makes use of the ARIS modelling platform, the ARIS Business Publisher and the Business Simulator but other components of the tool might be incorporated in the future. The tenderer should also be able to advice DG TAXUD on the use of other modelling or architecture tools as alternative or interfacing with the ARIS tool for specific use.

6.5.4 Planning Tools

DG TAXUD currently uses **MS Project** as its main planning tool. Any planning tool used by CUST-DEV3 must have the capability to manage the planning activities defined in WP.0.8, the DTM and any other planning related deliverables linked to this Framework Contract.

6.5.5 Document Repository Tools

DG TAXUD is currently using **CIRCABC®** as a document repository tool for various activities such as documentation reviews and the publication of information to the Member States. For document deliverables, the standard procedure is for contractors to email documents (or FTP large documents) to the QAC contractor who organises the review cycle by creating a review task and uploading the submitted document to CIRCABC®. After DG TAXUD has accepted the document deliverable, the QAC contractor uploads the accepted version to CIRCABC®. During the lifecycle of the Framework Contract, DG TAXUD may decide to upgrade to a successor of CIRCABC® or an alternative tool during the lifecycle of the Framework Contract. This would be handled via WP.0.12. Any resulting changes to the FQP should also be completed during this activity.

6.5.6 Knowledge Management tools

The tenderer should propose tools for implementing a knowledge base and describe the way that the knowledge base could be deployed, populated and kept up to date.

6.6 Office automation Tools

The CUST-DEV3 contractor must have an office automation environment which is compatible and inter-operable with that of DG TAXUD. At the time of writing the Invitation to Tender, the office automation environment was as follows:

- Windows 7 (32 and 64-bit)

- Office 2010 (32-bit) – deployed with the platform

- Internet Explorer 8 (32 and 64-bit)

- Mozilla Firefox 3.6 (32-bit)

7. Synergia Programme

7.1 Participation in the Synergia programme

DG TAXUD has set up the Synergia programme to further build on ever better working relationship between DG TAXUD IT, the Stakeholders, the Suppliers and Users (refer to 'Synergia services offer (by ITSM)-contractors' obligations [R023]). The programme strives towards a shared coherent set of processes supported by automated workflows and excellent Service Management Tools. The Synergia programme will imply transformations to improve efficiency and to achieve operational excellence.

The CUST-DEV3 contractor is concerned where he **interfaces** with the operations contractor and delivers services within IT operations (meaning production and conformance), IT service support processes, testing ((p)SAT) and release delivery. Services **not** concerned by the Synergia programme are services linked to:

- IT software development; the CUST-DEV3 contractor may use the most appropriate software development best practices, tools and factories;
- ICT Infrastructure management linked to the provision of the CUST-DEV3 Data Centre services

Examples of future Synergia projects may be e.g. Deployment of IBM® Rational Team Concert® (RTC) or any other tool from the IBM® Rational toolset, Knowledge Management, Event Management, CMDB, Service Request Management and Service Fulfilment, Service Catalogue, Self Help and Knowledge bases, Automated Deployment, Planning tools and Planning services, etc.

The following describes mainly the interfaces with the operations contractor:

- the "As is" section describes the interfaces to the ITSM contractor at the time of writing of this Invitation To Tender;

- the "To be" section describes the expected changes to the existing interfaces and must be taken into account by the tenderer.

7.2 AS-IS

The AS-IS describes the interfaces as they exist between the incumbent contractor and the ITSM contractor.

The ITSM contractor works according to ITIL V2, moving towards ITIL V3. The actual implementation of ITIL is described by the ITSM contractor through the ITSM FQP and related documents and has put the relevant processes in place..

The incumbent contractor works according to the TEMPO application development methodology and has put processes in place to handle 3rd level service support which are described in the FQP of the incumbent contractor and related documents.

7.2.1 Service Support Operations

7.2.1.1 Service Desk

The ITSM contractor maintains a Service Desk according to ITIL, who takes in calls and requests from DG TAXUD stakeholders and the DG TAXUD IT community. The ITSM Service Desk is the central point of dispatching for all calls and requests between DG TAXUD, stakeholders, service providers and call issuers.

The CUST-DEV2 contractor maintains a Central Help Desk, who interfaces to the ITSM contractor's helpdesk.

7.2.1.2 Incident management

The ITSM contractor is working with Synergia Service Manager, based on HP SM 9.3, installed at the ITSM Data Centre. The incumbent contractor is working with Rational ClearQuest at its premises.

The ITSM Service Desk registers, classifies, prioritises and manages incidents in the Synergia Service Manager and takes over all communication towards the incident issuer. Incidents include requests for information and request for services.

For 3rd level support, the incidents are assigned to the incumbent contractor Central Help Desk within Synergia Service Manager. From the Synergia Service Manager incidents, within Rational ClearQuest, the incumbent contractor Central Help Desk manually creates issues with a link to the Synergia ticket number. The incumbent contractor Central Help Desk dispatches the call to internal teams that work in Rational ClearQuest only. When the issue is linked to specifications and/or software incidents and the root cause is identified as a defect, this is registered as such in Rational ClearQuest.

The outcome of the incident management is manually copied into Synergia Service Manager by the incumbent contractor Central Help Desk.

ITSM closes the incident with the respective information to the call issuer. When the incident contains a confirmation of a defect, ITSM creates a problem with related known errors and workaround information if applicable. The incumbent contractor is not involved in the management of those objects.

For some incidents, concerning mainly issues related to the components of systems that are under the responsibility National Administrations, DG TAXUD reviews the resolution provided before it is communicated to the issuer.

Object status between Synergia Service Manager and ClearQuest is not necessarily synchronised.

7.2.1.3   Problem management

The problem management process is managed in a similar way as incident management in the sense that the problem is taking on board by the incumbent contractor Central Help Desk and results in the creation of an issue in the Rational ClearQuest tool.

The root cause analysis performed by the internal teams can result in the creation of defect(s).

The outcome is communicated to ITSM which is updating the relevant information in the Synergia Service Manager.

7.2.1.4   Change management

The ITSM contractor is performing change management for operations with Synergia Service Manager. The incumbent contractor is performing change management for application development within Rational ClearQuest.

As Rational ClearQuest is not accessible by the National Administrations, part of the change management for Customs IT systems is performed through the Synergia Service Manager, by assigning requests for information (impact assessment and request for position). This is currently a pilot project for the specifications of NCTS, ECS and ICS using the Synergia Change Management module in order to capture feedback of stakeholders and to group and bundle changes that relate to the relevant IT system. Those changes are to be linked to the equivalent objects within Rational ClearQuest.

7.2.2   Service Transition

7.2.2.1   Testing lifecycle

The incumbent contractor develops most of the test artefacts. These are a mix of plans, test documentation, test scenarios and test cases. Although several IT systems and applications use test automation tools and techniques this is not yet the case for all of them.

The incumbent contractor performs unit, integration and FAT testing based on those artefacts. The artefacts are delivered to the ITSM contractor and to be used to perform pre-SAT, SAT testing and (partially) qualifications.

Testing documentation is exchanged through CIRCABC. The ITSM contractor can comment on the documentation through the TEMPO deliverables review process. The TEMPO deliverables review process ensures that comments on those files are implemented according to the decision taken by DG TAXUD in a comments and author's position review meeting.

During test execution, the ITSM contractor can produce an addendum to the Test Design Specifications. This addendum contains test cases that are considered to be missing and that are related to additional operational tests needed. This addendum is to be forwarded by the ITSM contractor to be incumbent contractor such to guarantee a synchronisation of the Test Design Specifications.

If available, automated testing is mainly performed in 3 ways: (1) System-to-system test cases are available for most of the IT central applications and allow to test the implemented validation rules at server level. These tests are to guarantee the consistency of the implemented rules independent from any client interface. The tool used for this is home-made and based on pre-designed XML messages. (2) User Interface test cases are executed through Rational Functional Tester which is embedded in a home-made framework. (3) Performance test cases are executed through Rational Performance Tester.

Test reporting by ITSM is performed through emails and conference calls. Issues found by ITSM during testing are logged as such in Rational ClearQuest. These issues are copied by the incumbent contractor as defects and subsequently the ones opened by ITSM are closed. The incumbent contractor provides a position to each test result.

At the end of a test cycle, overall test results are produced by ITSM and documented in MS Word.

7.2.2.2   Release and Deployment Management

The incumbent contractor provides and maintains the Infrastructure Requirements Document. This is to be provided to ITSM as early as possible in the development lifecycle and contains all required elements to anticipate to new or changed requirements.

The incumbent contractor uses Rational ClearCase for Software Version and Build Management, ITSM has read access to the tool.

The incumbent contractor delivers releases and release information to ITSM for deployment and installation purposes through FTP file server exchange.

Together with a release, a release note is provided to the ITSM contractor. The release note contains all information needed for ITSM to correctly perform deployment and release management.

The release note does not contain impact assessment, CMDB information and identifiers related to resolved known errors that allow the ITSM contractor to close objects that should/need to be closed in Synergia.

Release versioning between the ITSM contractor and the incumbent contractor is not necessarily aligned.

No releases are deployed into production without prior approval by DG TAXUD.

7.2.2.3   Administration and Installation manual

The incumbent contractor creates and maintains administration and installation manuals that are provided to the ITSM contractor.

7.2.2.4   Planning Management

The incumbent contract and the ITSM contract maintain at each side operational plannings. DG TAXUD is coordinating both plannings.

Shifts in release delivery to the ITSM contractor require re-planning for testing and deployment and cause often strain on the ITSM contractor from a timing and resource point of view.

7.2.2.5   Knowledge exchange

There is no formal end-to-end knowledge exchange process in place between the incumbent contractor and the ITSM contractor.

Elements that allow for knowledge are desk study or release note and other documents delivered during the TEMPO document review cycle, when and where possible. During testing, the CUST-DEV2 contractor provides support during pre-SAT and answers to questions issued by the ITSM contractor.

On an ad-hoc basis and for a given elapsed period, mainly in the context of major deployments, more permanent cross-contractor working groups have been established to mitigate the risk of major operational issues.

7.2.3 Service design

7.2.3.1 Specifications and requirements management

The TEMPO document review cycle and CIRCABC is used to allow the ITSM contractor to comment upon specifications and design of applications.

7.2.3.2 Configuration Management

The CUST-DEV2 contractor does not maintain a CMDB in the operational ITIL sense, but a software versioning repository in Rational ClearCase.

The ITSM contractor maintains as operational CMDB the Synergia CMDB. The objective of the Synergia CMDB is to keep an overview over the IT infrastructure and landscape and the applications and systems deployed on top of it. The CMDB includes relationships between the elements within the CMDB.

Maintenance is based on information provided by the CUST-DEV2 contractor for example through release notes, but maintenance is restricted to the ITSM contractors' area of responsibility. The network and infrastructure part that is responsibility of the CCN/TC in not contained in the Synergia CMDB

There is no formal communication process or review process established between CUST-DEV2 and the ITSM related to the maintenance of the Synergia CMDB.

7.3 TO-BE

The contractor will take over the services, interfaces and tools from the incumbent contractor as they will be at the time of takeover (refer to WP.2). The following specifies the view of DG TAXUD how the current situation will evolve towards the "To Be" situation. This "To Be" situation is in line with the service descriptions in the relevant work packages specified in section 2.

At the time of writing this Invitation To Tender, DG TAXUD started the transition from the incumbent ITSM contractor to the ITSM2 contractors.

DG TAXUD is converging towards ITIL V3. The contractor commits to work according to ITIL V3 best practises, once in place, throughout the service management lifecycle within its responsibilities concerning operations support.

7.3.1 Services provided by ITSM2 Lot1

The CUST-DEV3 contractor may request services to ITSM2 Lot1 related to the tools setup, configured, customized and operated by ITSM2 Lot1. Those services are related to information provision, training, technical support service, etc. At the time of writing this Invitation To Tender, those tools are ITSM Portal, Synergia Service Manager, the ITSM LDAP for user management. A project is on-going to setup Synergia Reporting based on Business Objects.

Other services may be defined, setup and provided if the CUST-DEV3 contractor justifies the need and DG TAXUD agrees.

Synergia SM is defined with a 7d-24h Service Window ("Normal" Quality of Service availability target value of: 99.98% and a limit value of 99.3%– All days of the year including Public Holidays, 24 hours a day)

It is up to DG TAXUD's decision to change this classification.

7.3.2   Service Support Operations

7.3.2.1   ITIL Service Desk

The CUST-DEV3 contractor accepts the ITSM2 Lot1 Service Desk, in the sense of ITIL as sole/only Service Desk (SPOC); no other Service Desk may be established.

All incidents must be registered via the ITSM2 Lot1 Service Desk. No direct interaction with end-users shall be established. The ITSM2 Lot1 Service Desk will create interactions/incidents/requests for services/information where necessary for the CUST-DEV3 contractor.

The Service Desk of ITSM2 Lot1 contractor will act as a proxy for feedback of entities that reply outside of the tool. The ITSM2 Lot1 Service Desk will update the data objects according to this feedback, and inform the CUST-DEV3 contractor of this change through the Synergia SM.

Actions issued by DG TAXUD inside the context of operations must be logged in Synergia Service Manager by the ITSM2 Lot1 Service Desk.

By proposing a bid for this Invitation To Tender, the tenderer commits to monitor ticket queues within the Synergia Service Manager proactively. The tenderer commits to issue new tickets uniquely through the Synergia Employee Self Service or through the Synergia Full Client. Direct e-mail exchange between assignment groups does not constitute a valid way of communication about the progress of a ticket.

7.3.2.2   Incident management

The CUST-DEV3 contractor will get incidents assigned by ITSM2 Lot1 within Synergia SM in order to provide third level support, solutions, workarounds, and to identify problem candidates, within its area of responsibility.

The ITSM2 Lot1 Service Desk will register, document, classify and prioritise all "incidents" in Synergia Service Manager including those raised during the CT campaigns.

The CUST-DEV3 will ensure that all progress on incidents will be documented in the Synergia Service Manager, and that the content of the incident, status of resolution and assignment information is up to date at all times.

This must be done by having the CUST-DEV3 teams dealing with issue resolution working directly within Synergia Service Manager. Subsequent objects related to defects and change requests remain registered in Rational ClearQuest or its successor.

By providing a bid to the present invitation to tender, the tenderer commits to remove unnecessary and redundant actions that only serve to synchronize information over tool boundaries, by at the latest at the end of the take-over.

The tenderer accepts that the prioritisation of incidents is performed exclusively by the ITSM2 Lot1 contractor, based on the rules and procedures defined by DG TAXUD. The tenderer accepts that the ITSM2 Lot1 Service Desk may change the priority of an incident during the course of the resolution if new information is available.

The CUST-DEV3 contractor may request to change the priority to the ITSM2 Lot1 contractor and accepts that this priority change will be communicated to the user.

7.3.2.3   Problem management

Within incident objects in Synergia, the CUST-DEV3 contractor will provide feedback (or flag) which incidents may be problem candidates.

The CUST-DEV3 contractor acknowledges that based on the CUST-DEV3 feedback within the incident, the ITSM2 Lot1 contractor creates problems in Synergia Service Manager with root cause analysis and workaround information.

Information provision shall allow the ITSM2 Lot1 contractor to apply workarounds to incidents, perform 1st level call resolution and to link similar future incidents to an existing problem.

In case the information in the incident does not allow the ITSM2 Lot1 contractor to reuse the information in the context of operations, the problem may be assigned to the CUST-DEV3 contractor in order to provide clearer information.

7.3.2.4   Change Management

The outcome of the pilot project concerning the registration of Requests for Change issued by the National Administrations and their subsequent will result in streamlining the process and the tool usage.

The required adaptations will be part of the CSIP (WP.0.12) will be implemented in the context of the relevant work package(s).

7.3.3   Service Transition

7.3.3.1   Testing lifecycle

It is the objective of DG TAXUD to apply automated testing wherever possible in order to improve the overall deployment time, to reduce the risks of regression and to create the possibility to move towards a "continuous" testing strategy.

Furthermore, the testing conditions must be as close as possible to the conformance/production conditions. Performance tests, end-to-end test are only some examples which are to be performed in order to avoid major issues when deploying a new release in conformance/production.

The required adaptations will be part of the CSIP (WP.0.12) and will be implemented in the context of the relevant work package(s).

7.3.3.2   Administration and Installation manual

The CUST-DEV3 contractor will improve the quality of the administration and installation manuals, by adding links to standard software documentation and standard best practises, as well as specifics to the implementation at hand, regular tasks, etc.

The administration and installation will include information about jobs / batch jobs to be planned in, what to do in case of job failure, regular housekeeping tasks, and operations best practises as long as they are specific to the application. The administration manual will identify candidates for operational standard changes.

The administration manual will as well provide specific instructions, procedures and documentation related to services that have specific security and confidentiality requirements.

7.3.3.3   Release and Deployment Management

The contractor will deliver releases and release notes to the ITSM2 Lot1 contractor following the approval of DG TAXUD and a successful FAT or qualification execution performed by the contractor.

Once the ITSM2 configuration management allows doing so, the contractor will deliver the release directly into the DML of the ITSM2 Lot1 contractor.

Release bundles will include at least:

- binaries, scripts, configuration instructions, SQL statements, etc.

- updated documentation (linked to system development and system strategy, design, operation and transition),

- release note,

- links to all (declared) fixed defects, all new defects and all (declared) implemented changes including those ones raised in Rational ClearQuest or its successor by the ITSM2 Lot1 contractor,

- test and reference data,

- installation / deployment information.

When delivering a release or a patch, the contractor will provide information which "known errors" are resolved by a release, including their identifier in Synergia Service Manager.

The CUST-DEV3 contractor will use the release versioning that the ITSM2 Lot1 contractor defines, but may keep an internal release numbering in the release note.

Release versioning may differ from the release numbering that is used by DG TAXUD to communicate with other stakeholders.

7.3.3.4   Planning

The ITSM2 Lot3 contractor may consolidate master planning information if tasked so by DG TAXUD. Consequently, the contractor will collaborate with the ITSM2 Lot3 contractor on this.

7.3.4   Service Design

7.3.5   IT architecture, analysis and design

The contractor must involve the ITSM2 contractors in a dynamic way such that all non-functional requirements are known, correctly designed, implemented and tested ready for deployment.

The contractor will inform the ITSM2 Lot1 contractor timely in case new technology is used or major releases and new systems require operations specifics that will be new to the ITSM2 Lot1 contractor.

For new systems and new technology, the tenderer will hand over knowledge to the operations contractor through knowledge transfer techniques, e.g. coaching and shadowing sessions, and possibly playground installations. Handing over of documentation will not be accepted as only means of knowledge transfer for new systems and technologies.

The ITSM2 Lot1 contractor will ensure staff is skilled to the level that could be expected from expertise available freely on the market, i.e. non-TAXUD application specific knowledge. This knowledge does not need to be handed over by the tenderer.

7.3.5.1   Configuration Management

A maximum synergy must take place between the Synergia CMDB and the one required for the CUST-DEV3 contractor (currently Rational ClearCase). A clear separation must be made between what is really required from an operational and development viewpoint.

The required adaptations will be part of the CSIP (WP.0.12) and will be implemented in the context of the relevant work package(s).

8. IT Transformations

Dg TAXUD can decide to perform IT transformations during the lifecycle of the CUST-DEV3 framework contract. These transformations may be introduced by DG TAXUD as major improvements to the current development, transition and operational processes and toolsets in order to fully benefit from new possibilities offered by the IT market and other opportunities such as the development of the new CCN2 network.

DG TAXUD may request the tenderer to participate to those transformations and make available skilled and knowledgeable resources by triggering on-demand activities.

For this purpose, DG TAXUD has allocated a provision to their financing. The cost of acquiring hardware and software is excluded from this allocation and will be funded from the general hardware/software/maintenance provision.

The following describes

- the possible transformation of the current project management, development and testing lifecycle methods;

- the possible participation of the CUST-DEV3 contractor in the transformation project of the ITSM2 lot1 contractor of the current transition process of a given IT system/application.

8.1 New project management, development and testing methods

Currently, the Customs IT projects, systems and applications are managed, developed and tested according to processes and procedures described in the current version of the TEMPO methodology. For a description of the current applicable methods refer to the relevant TEMPO documents through the URL specified in the Terms Of Reference 'section 0.5 References' and more specifically to

- The project management part with the project management reference manual (TMP-REF-PM) as the main document;

- The Trans-European system management with the Trans-European Systems Reference Manual (TMP-REF-TES) as the main document;

- The application development part with the application development reference manual (TMP-REF-ADP) as the main document;

- The test part. Refer to Central Information Systems (CIS) testing for the testing of the central applications with the testing reference manual (TMP-REF-TST) as the main document. Refer to conformance testing for the conformance tests conducted with the National Administrations with the conformance testing procedure (TMP-PRC-CT) as the main document.

The main IT transformation that DG TAXUD considers in this domain of activities is to move towards project management, development and testing lifecycle methods which are tool-based and which are considered as more common use at the global IT market level. Furthermore, DG TAXUD will move forward to integrate more explicitly SOA principles in the applicable methods (refer to the Terms Of Reference, future perspectives). Specific emphasis must be put on the design methods, the automation of all test activities, and an effective and efficient interface between IT development and IT operations contractors over all phases of the IT systems/application lifecycle.

The main objective of this transformation is to reduce the overall time to develop, to improve the applicable productivity rates at the contractor(s) and the Commission level while keeping the required level of quality.

The tenderer is requested to provide in his answer to the Invitation To Tender (refer to 'Annex I – Questionnaire, section 5.4') his proposal of such a transformation with the following elements:

- Description of the new methods and tools with a clear indication what the tenderer considers as main improvements compared to the existing applicable methods;

- Impact of the IT transformation on the IT project lifecycle main activity productivity rates for the new IT projects;

- The Total Cost of Ownership (TCO) of implementing the transformation, including acquisition cost of hardware/software, participation of human resources during the transformation, running cost, etc;

- The roadmap and timetable to implement the IT transformation.

The RUP methodology can be taken as a reference for the development and testing mthods transformation.

8.2 Participate to the IT transformation to new transition methods

The lead for this possible IT transformation will be the ITSM2 lot1 contractor. The main objective for this transformation is to reduce the time to deploy new releases and to improve the applicable productivity rates. This will be achieved mainly by

- Automating the deployment processes;
- Automating the testing activities.

The Cust-DEV3 contractor will be possibly requested to adapt existing processes and methods such that there is an alignment with the new methods and tools from a development delivery viewpoint. This transformation is not necessarily linked to the one for project management, development and testing as described in section 8.1.

9. Security Requirements

All the requirements in this section have to be integrated into the Information Security Management System put in place as execution of WP.0.14 Security Management.

As part of its project operation and management, the contractor must ensure that the following requirements are met:

- keep the Commission informed of the composition of the contractor's team and provide the CVs for each staff member,

- restrict and control the access by his staff to the service resources on a "need to know/access" basis,

- Take the necessary security protection to avoid divulgation of service resources to external parties, including a strong protection (e.g. by encryption or strong access control) of all project related sensitive information when it leaves the contractor premises. A special attention shall be paid to e-mail exchanges and mobile equipments as e.g. laptops, CDs/DVDs or USB memory keys,

- escalate any security incident to the Commission,

- provide security recommendations (e.g. deployment of security patches, …) to the Commission when required.

- restrict, monitor and control the access to the operational environment;

- restrict, monitor and control the physical access to the production and operational servers, firewalls, routers and other physical components used to manage the information flow within the environment,

- restrict, monitor and control the access to the connection towards the CCN network should it be via the Commission CCN GW or via the CCN IP network, by protecting the CCN connected LAN segment using dedicated cabling and equipment and a firewall to isolate it from the other segments of the operational infrastructure;

- ensure compliance with the Confidentiality/ Integrity/ Availability requirements applicable to the information, information systems and processes;

  - Protect all workstations and servers used in the frame of the contract by a login/password mechanism, with an anti-virus package, which is updated automatically. This anti-virus solution must control files received from mail, Internet and media or stored locally.
  - Logical or physical separation between the IT environments related to development, test, training & demo must be enforced.

The contractor will describe the security system that it applies in a security plan delivered to the Commission (see WP.0.14.1).

The Commission's information systems security management (ISMS) is defined in 'the Commission decision of 16 August 2006 C(2006)3602 concerning the security of information systems used by the European Commission [R032]', its implementing rules [R031] and corresponding security standards for further implementation. At Directorate General-level, DG TAXUD has issued and continuously updates the TEMPO security management documents which define the DG information systems security policy compliant with the EC ISMS.

The Commission reserve the right to impose additional specific physical and logical security rules in the future, should the need arise.

The Commission reserves the right to perform security audits of the service organisation in the contractor's premises. The Commission may elect to contract with a third party to perform these audits. The contractor commits to co-operate fully with the Commission during the audits (refer to work package WP.0.5). In particular, the contractor commits

- to authorise the access to the whole of the service information located at his premises no later than two weeks after the request of the Commission,

- to answer the questions from the Commission during those audits (or its elected third-party contractor and

- to provide the evidences required during those audits.

Access to the Commission internal network and computer environment is ruled by a security convention which must be signed by the contractor, IRM, DIGIT and the Security Directorate before a connection may be made. See 'Procedure for the creation and amendment of a Security Convention [R030]' as well as 'Guidelines for the preparation of Security Convention for remote access [R029]'.

Each staff member assigned by the contractor must sign a declaration of confidentiality in compliance with article III.2.2. of the general terms and conditions for IT contracts, with art 4 of the Commission decision concerning the security of information systems used by the European Commission [C (2006) 3602] and with art.23 of Regulation (EC) N° 45/2001 of the European Parliament and of the Council of 18 December 2000 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data.

The contractual confidentiality clauses apply to all team members of the contractor

The Commission may require, if the need arises, that key staff get a security clearance from a Member State national security authority.

10. General Requirements

10.1 Relationship

The contractor will perform the activities under the authority and the close control of the Commission, in function of the organisation in place at the Commission, and in full compliance with the Framework Quality Plan (FQP). The instruments of this control shall include all the deliverables specified in the WP.0 Management Work Package.

In terms of inter-relationship between contractors, the contractor reports to the Commission only. In some specific circumstances, the Commission may authorise the establishment of direct working technical relationships between the contractors in order to improve the overall efficiency of the Central Programme. However, the Commission will always retain the full control over, and require full traceability of the information exchanged between the contractors. It is important to recognise that delays incurred by one contractor will ripple down to the other parties downstream, implying that all contractors must take adequate steps to address this risk.

10.2 Deliverables

The contractor must deliver the produced artefacts electronically, on paper only if requested, using the Commission office automation tools and according to the procedures defined in the FQP. However, the Commission may request the contractor to redeliver the deliverables on a DVD-ROM media instead. All written artefacts are to be produced in English, unless stated otherwise. Some documents may need translation into EN, DE or FR.

All artefacts must be anonymized if staff does not agree that their name appears in one of the artefacts (refer to section 4.2 for more details).

10.3 Ownership

All deliverables become the property of the Commission once accepted. The Commission is then the only party that can authorise their further use and distribution. All deliverables of the contract are free of IPR from 3rd parties (unless otherwise accepted by the Commission), and in particular the processes, the procedures, the tools, the knowledge/information/data repository, the bespoke software, configuration and scripts and other artefacts produced by the contractor to support his service delivery to the Commission.

None of the deliveries may refer to documentation or other artefacts owned by the contractor which would not be publicly and freely available.