

OWNER: DG TAXUD	ISSUE DATE: 22/03/2010	VERSION: 1.04
<p>TAXATION AND CUSTOMS UNION DG</p> <p>ITSM</p> <p>SUBJECT:</p> <p>FQP - Annex 28: Application Development</p>		
FRAMEWORK CONTRACT # TAXUD/2007/CC/088		

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FQP - Annex 28: Application Development	VER.: 1.04
DOCUMENT HISTORY	ISSUE DATE: 22/03/2010

DOCUMENT HISTORY

Edi.	Rev.	Date	Description	Action (*)	Pages
0	01	06/07/2007	First Draft	I	All
0	02	05/10/2007	Further implementation	I/R	As req.
0	03	08/10/2007	Further implementation	I/R	As req.
0	04	15/10/2007	Draft delivered for information to DG TAXUD	I/R	As req.
0	05	31/10/2007	Draft delivered for information to DG TAXUD	I/R	As req.
0	06	30/11/2007	Further implementation + Implementation of comments received from DG TAXUD. Delivered for information to DG TAXUD	I/R	As req.
0	07	10/12/2007	Further updates	I/R	As req.
0	08	01/04/2008	Further updates	I/R	As req.
0	09	07/07/2008	Consolidation after intermediate deliveries of processes outside of the scope of the FQP document	I/R	As req.
0	10	15/07/2008	Delivered for review to DG TAXUD after internal QC	I/R	As req.
1	00	07/11/2008	Delivered for acceptance to DG TAXUD after implementation of review comments	I/R	As req.
1	01	28/11/2008	Re-delivered for acceptance to DG TAXUD after implementation of remaining comments	I/R	As req.
1	01-1	27/03/2009	Structure FQP modified	I/R	As req.
1	01-2	7/12/2009	Further updates (RfA76 – FQP Evolutive Maintenance)	I/R	As req.
1	01-3	10/12/2009	Delivered for information to DG TAXUD	I/R	As req.
1	02	01/02/2010	Sent for review to DG TAXUD after internal QC	I	All
1	03	05/02/2010	Re-delivered for review to DG TAXUD after internal QC	I/R	As req.
1	04	22/03/2010	Delivered for acceptance to DG TAXUD.	I/R	As req.

(*) Action: I = Insert R = Replace

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1 - Introduction	ISSUE DATE: 22/03/2010

1. Introduction

This document is an annex to the Framework Quality Plan, deliverable DLV 0.1.1 requested in Specific Contract 04 [A2] under Framework Contract (IT Service Management for DG TAXUD) [A1], Work Package WP.0.1.

This document presents the Level 1, 2 and 3 of the ITSM process FQP - Annex 28: Application Development.

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2. Reference and Applicable Documents

This chapter presents two lists of relevant programme related documents. They are divided into reference and applicable documents.

2.1 Reference Documents

Id	Reference	Title	Date	Version
R1	ITS-IFQP-SC04-Framework Quality Plan	Framework Quality Plan	22/03/2010	1.04
R2	ITS-IFQP-SC04-Annex 9	ITSM Glossary	22/03/2010	1.13

Table 1 – Reference documents

2.2 Applicable Documents

An applicable document is a document which content is binding for a contractor no matter what is mentioned in this FQP.

Id	Reference	Title	Date	Version
A1	TAXUD/2007/CC/088	Framework Contract	04/05/2007	N/A
A2	TAXUD/2008/DE/114	Specific Contract 04	30/06/2008	N/A

Table 2 – Applicable documents

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3 - Terminology	ISSUE DATE: 22/03/2010

3. Terminology

3.1 Abbreviations and Acronyms

A list of the abbreviations and acronyms used in the context of the ITSM Programme, and more specifically for this document is provided in Annex 9 ITSM Glossary [R2].

3.2 Interface with DG TAXUD

Where there is a non-specific reference to DG TAXUD, Directorate Generale Taxation and Customs Union DG or other similar descriptions, it means that the interface can be with any one of the following business threads of DG TAXUD:

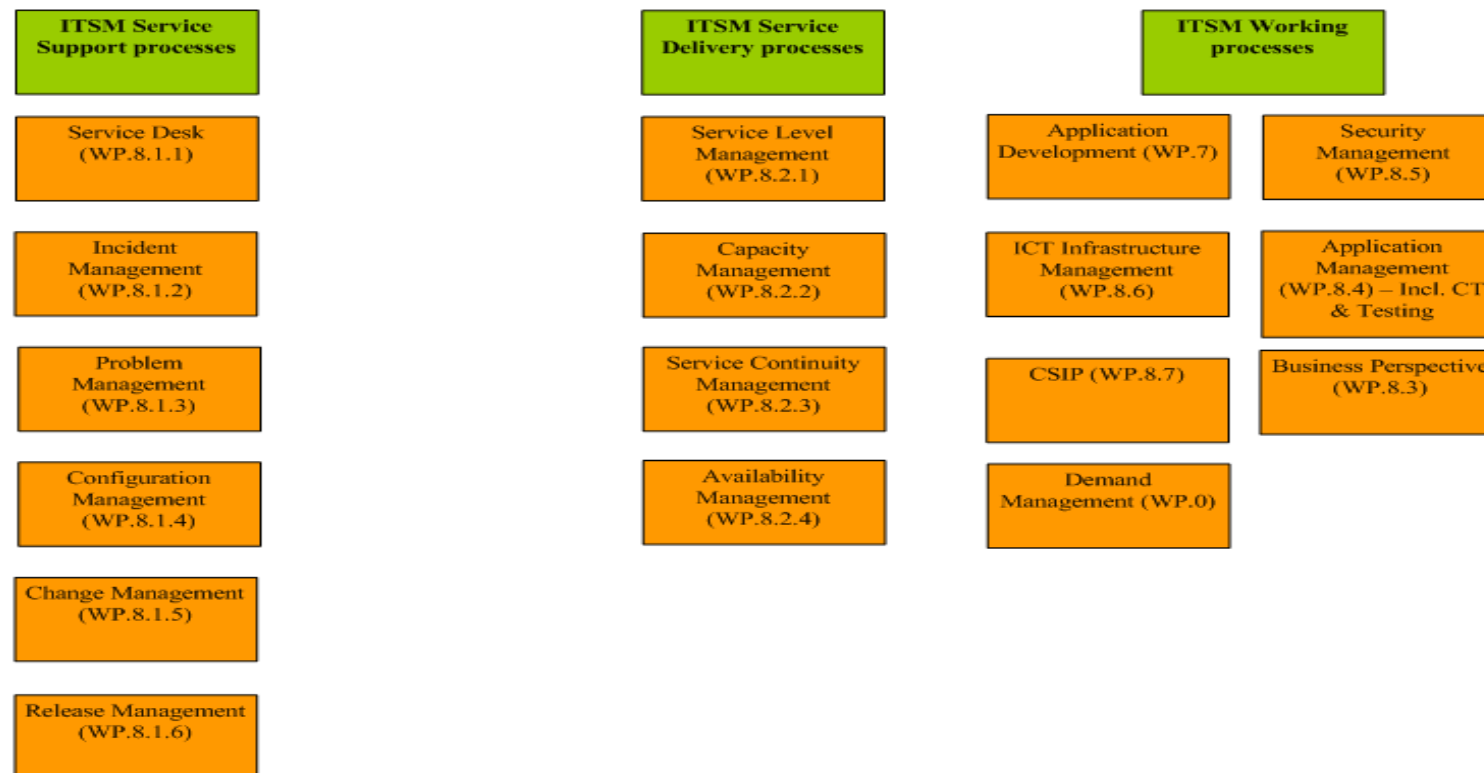
- DG TAXUD A4/CPT;
- DG TAXUD A4/ISD;
- DG TAXUD A4/APM;
- DG TAXUD A3/Tax;
- DG TAXUD A3/Exc;
- DG TAXUD A3/CUST;
- DG TAXUD A3/LISO.

Where it is intended that a reference is to a specific business thread/DG TAXUD department, one of the above naming conventions shall be stated.

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4. TSM Process model

4.1 Level 0: Process flows



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Figure 4-1: ITSM Process Model

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4.2 Level 1: Application Development

Application Development is responsible for - and restricted to - the development and support of ITSM Tools. It covers:

- The production of specification deliverables for the new ITSM Tools and their evolutive maintenance;
- The design, build and deployment support for new ITSM Tools and their evolutive maintenance;
- The set up and maintenance of test data sets;
- The corrective maintenance of current ITSM Tools.

The developed ITSM Tools must be compatible with ITIL and the ITSM processes.

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Within the application lifecycle, Application Development is present in the stages indicated in orange in the following figure:

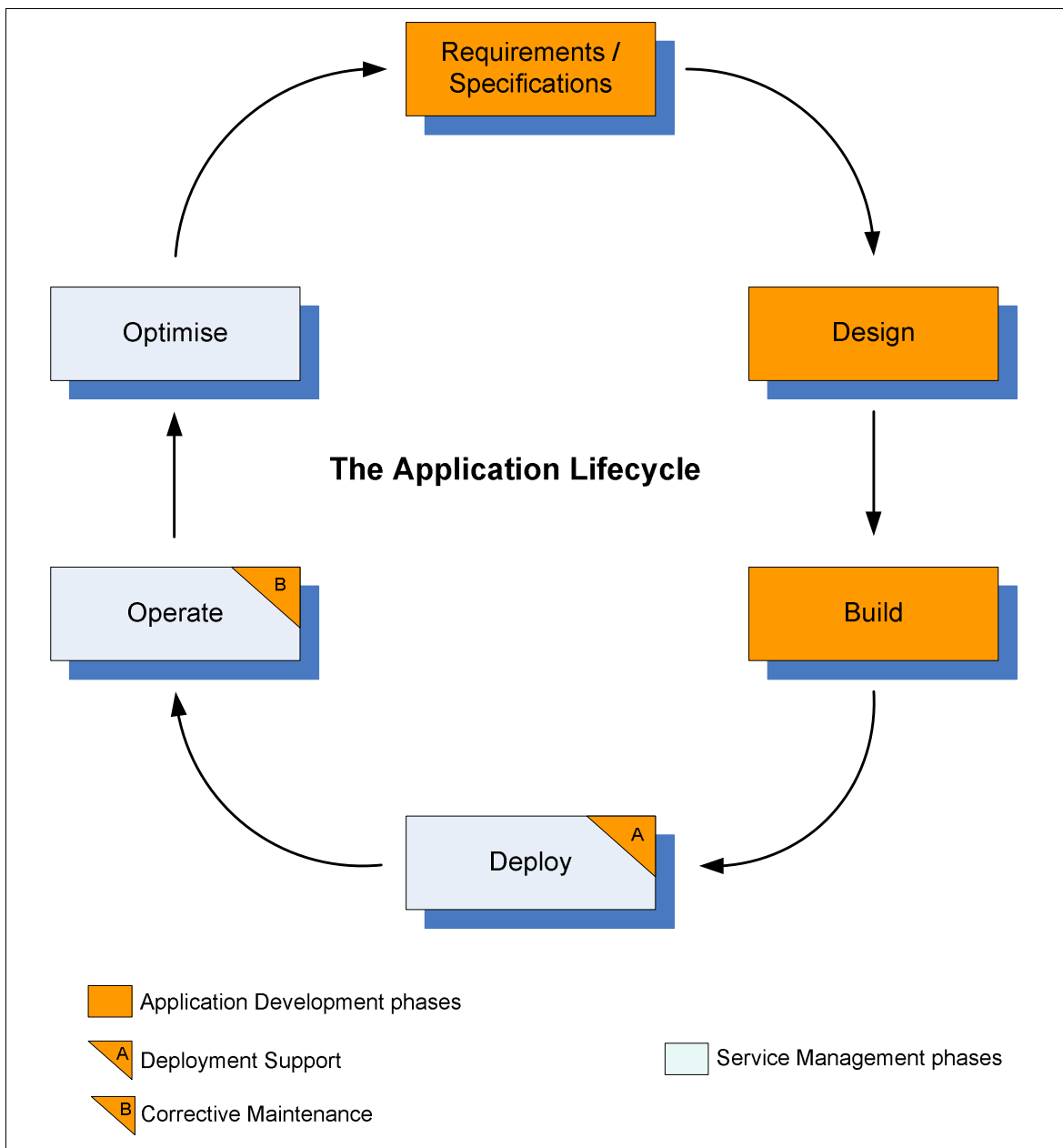


Figure 4-2: The application lifecycle from an Application Development perspective

“Application Lifecycle” regards the process of delivering software as a continuously repeating cycle of inter-related steps: definition, design, development, testing, deployment and management, and it starts from the initial design until the phase out cycle. These phases include the traditional Application Development phases (Requirements/Specifications, Design and Building) and the Application Management phases (Deploy, Operate and Optimise).

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The ITSM Tools Application Development process is often different from traditional Application Development in the respect that in many cases one or more COTS components are used to deliver the required functionality.

As depicted in the picture below, Application Development consists of five sub-processes:

- AD.1 Define Requirements;
- AD.2 Produce Specifications;
- AD.3 Perform Design & Build;
- AD.4 Provide AD Support;
- AD.5 Provide Corrective Maintenance.

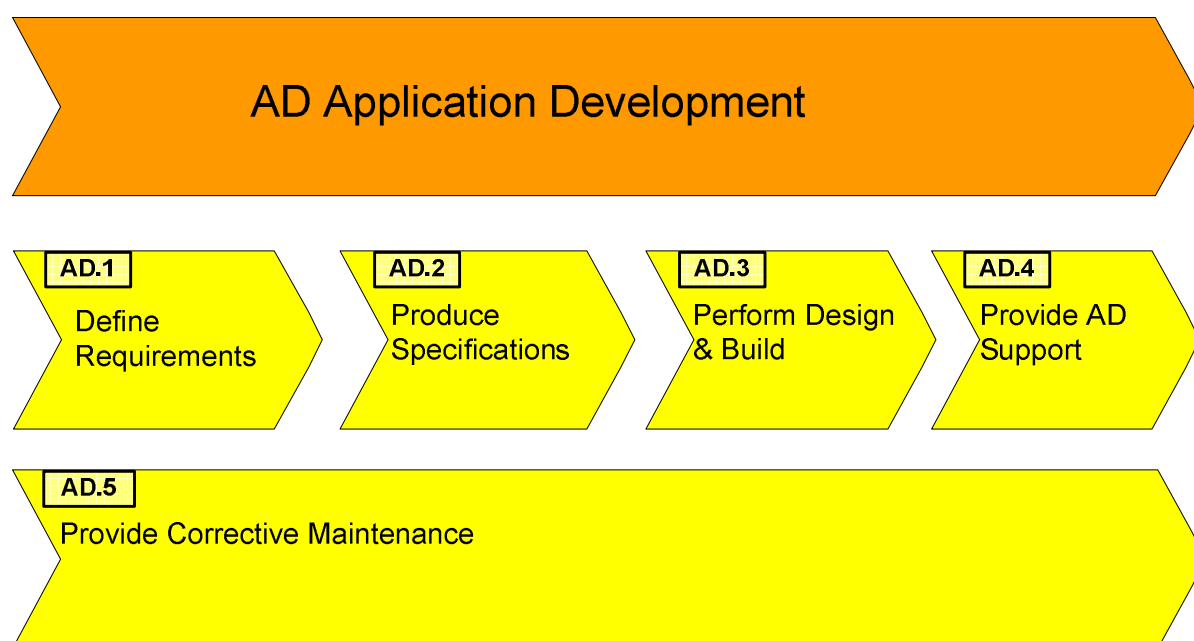


Figure 4-3: AD. Application Development sub-processes

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4.3 Level 2: Application Development

AD.1 Define Requirements

The scope of the activities undertaken in this sub-process is the production and evolutive maintenance of:

- Feasibility studies, with options;
- Functional, non-functional and usability requirements (System Requirements Definition (SRD)).

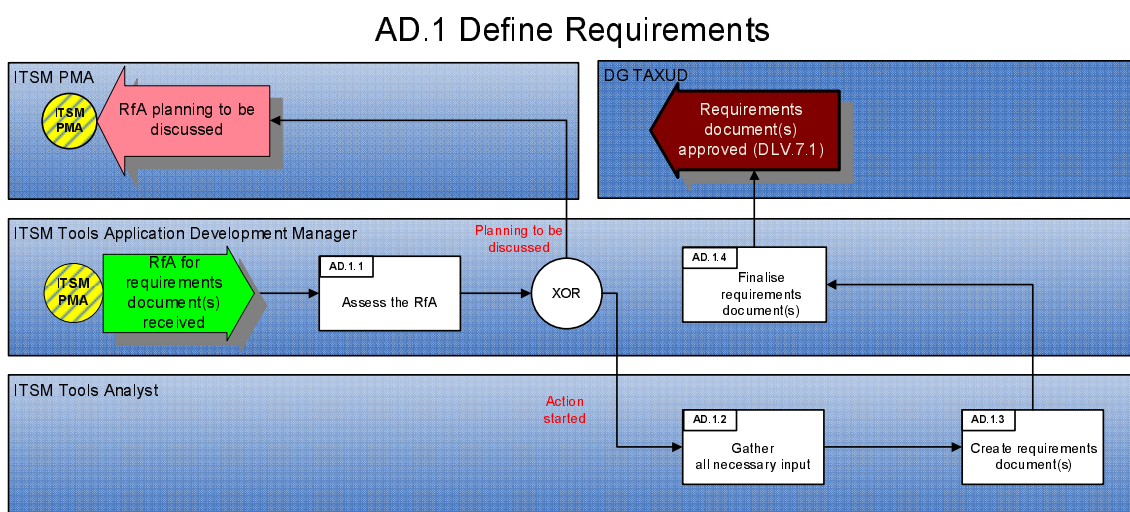


Figure 4-4: AD.1 Define Requirements

The current trend in ITSM Tools implementation is to use COTS whenever possible, since they have much common functionalities available. Nevertheless, requirements can, and will, often go beyond what is available with COTS products.

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AD.2 Produce Specifications

The scope of the activities undertaken in this sub-process is the production and evolutive maintenance of:

- Functional Specifications (FS);
- Technical Specifications (TS);
- Acceptance Test Specifications (ATS).

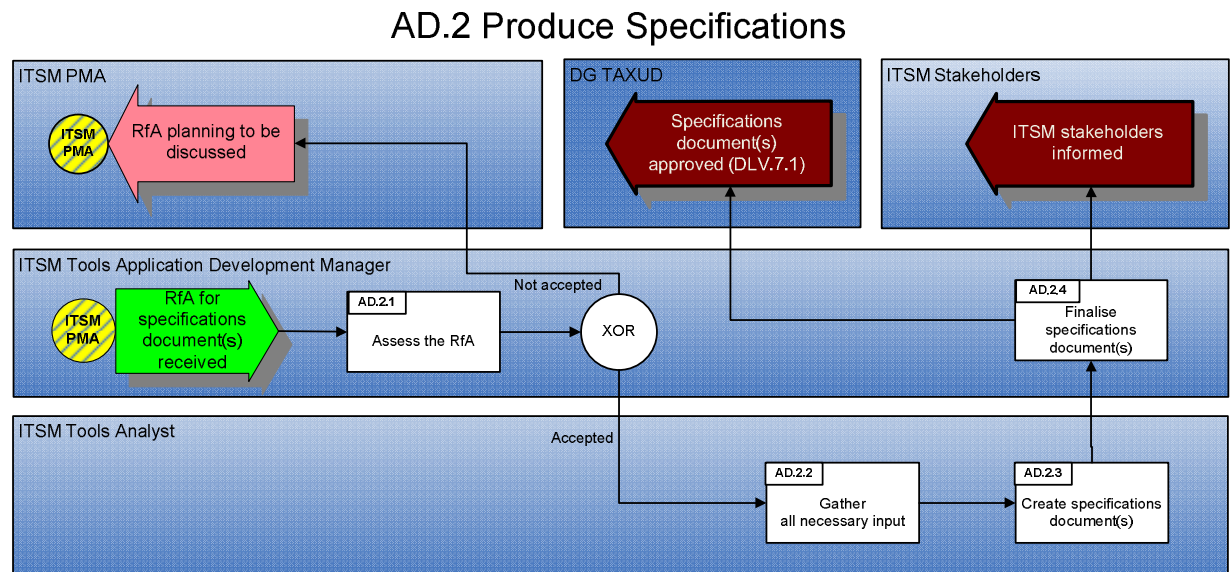


Figure 4-5: AD.2 Produce Specifications

It is important to understand the implication of the use of COTS components in the Application Development process.

Depending upon the type of ITSM Tool involved, the COTS may be dictating or is heavily influencing the operational use; meaning that there is a strong relationship between the process/procedures automated and the COTS used. Often, a workshop-like approach is required with the involved ITSM and Business process owners in order to decide how to implement/configure the COTS and where, if necessary, change the procedure or even the process. Hence, the specification of the solution to be created will be heavily depending upon the COTS used.

The workshop approach is best described as a short looped sequence of AD.2 and AD.3 cycles. This approach is of course not needed for the implementation of all ITSM Tools.

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AD.3 Perform Design & Build

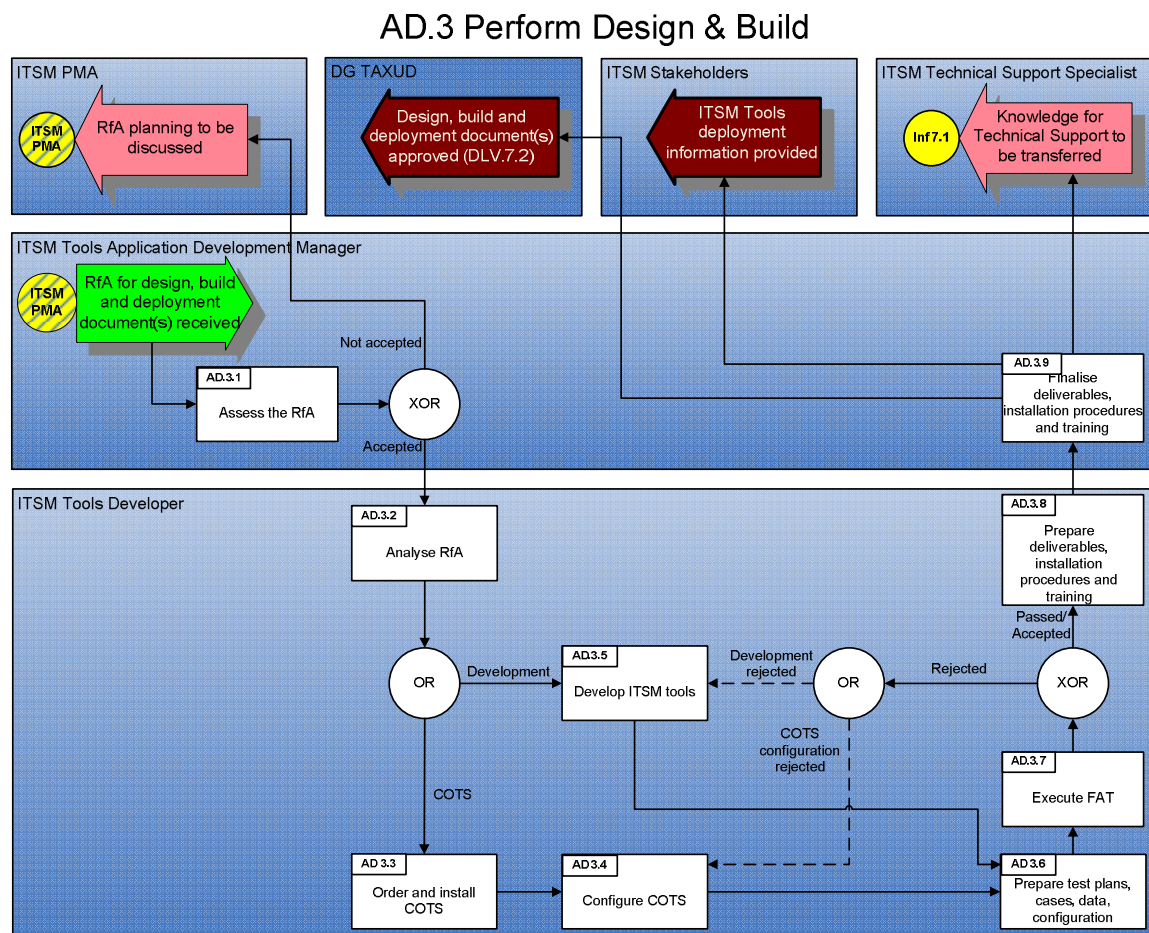
It is within this sub-process that the actual COTS configuration or tools development (or both) occur. In the related RfE phase the work and deliverables description, as well as the evaluation and quantification of the work amount, using the COSMIC functional size units (Cfsu) (as defined in Cosmic FFP) measure, has been done. Therefore, this sub-process only contains the actual tools development.

The sub-process shows two distinct flows:

- A COTS product configuration flow;
- A tools software development flow.

The flow to be followed depends upon the type of development required; COTS configuration or software coding. In some occasions, both COTS configuration and software development are needed. For instance, for the deployment of a CMDB system the basic system will most probably be a COTS that needs to be configured to the defined specifications, connected to other ITSM Tools/applications, for which the interfaces may require actual software development.

In such a situation, this process will work in parallel for the two different flows, following the “OR” after the AD 3.2 elementary process.



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Figure 4-6: AD.3 Perform Design & Build

AD.4 Provide AD Support

This sub-process ensures the provision of support during the deployment of an ITSM Tool. This support is limited to the preSAT and SAT phases, where support in the SAT phase ideally should not take place.

In the preSAT phase support requests may result in fixes, in all other support occasions, this support must be limited to helping Application & ICT Infrastructure Management in their work, including possible updates of existing documentation.

The corrective maintenance sub-process (AD.5) needs to be invoked in any situation after the preSAT where changes to one or more deliverables is needed,

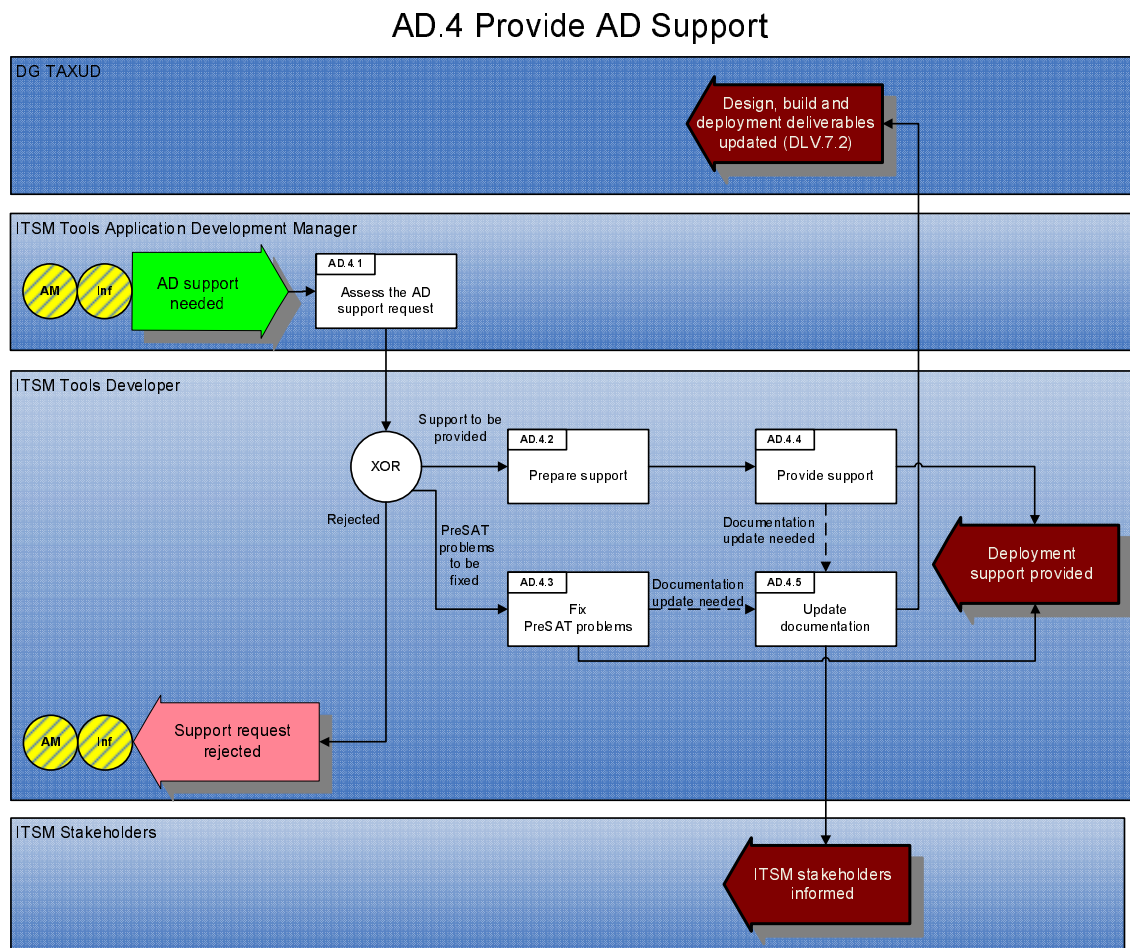


Figure 4-7: AD.4 Provide AD Support

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AD.5 Provide Corrective Maintenance

This sub-process describes the activities requested to execute a corrective maintenance task. After the initial evaluation and planning, the corrective maintenance task is executed. If necessary, the specifications and documentation will be updated before executing the FAT-cycle.

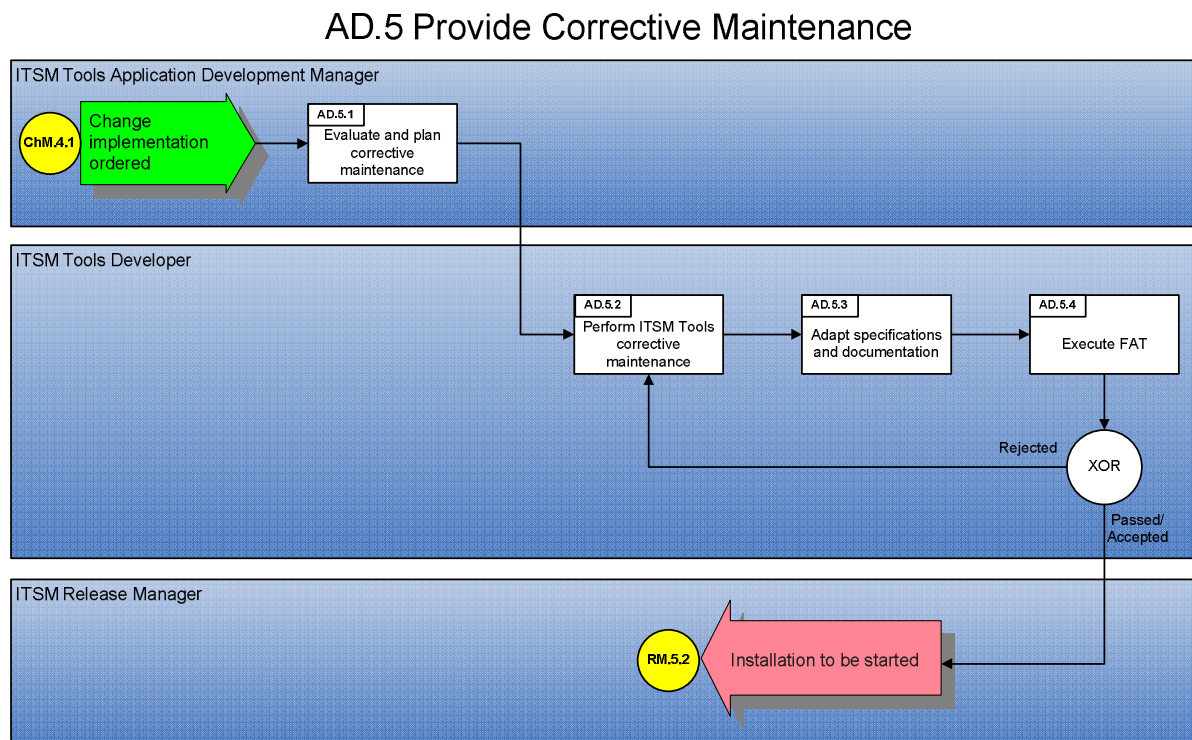


Figure 4-8: AD.5 Provide Corrective Maintenance

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RACI Table for AD

Activity	DG TAXUD A3/Cust	DG TAXUD A3/Exc	DG TAXUD A3/Tax	DG TAXUD A3/LISO	DG TAXUD A4/ISD	DG TAXUD A4/CPT	ITSM Tools Application Development Manager	ITSM Tools Analyst	ITSM PMA	ITSM Tools Developer	ITSM Technical Support Specialist	ITSM Change Manager	ITSM Application Manager	ITSM Security Manager	ITSM Stakeholders
AD.1.1 Assess the RfA						C	A/R		I/C						
AD.1.2 Gather all necessary input						C	A	R							
AD.1.3 Create requirements document(s)						I	A	R							
AD.1.4 Finalise requirements document(s)				I	I	C/I	A/R	C						I	I
AD.2.1 Assess the RfA						C	A/R		I/C						
AD.2.2 Gather all necessary input						C	A	R							
AD.2.3 Create specifications document(s)						I	A	R							
AD.2.4 Finalise specifications document(s)				I	I	C/I	A/R	C						I	I
AD.3.1 Assess the RfA							A/R	C	I/C						
AD.3.2 Analyse RfA							A/R	C							
AD.3.3 Order and install COTS						I	A			R					
AD.3.4 Configure COTS						I	A	C		R					
AD.3.5 Develop ITSM tools							A	C		R					

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AD.3.6 Prepare test plans, cases, data, configuration				I	I	I	A			R					
AD.3.7 Execute FAT						I	A			R					
AD.3.8 Prepare deliverables, installation procedures and training						C	A			R					
AD.3.9 Finalise deliverables, installation procedures and training						C	A/R	C		C	I		I	I	I
AD.4.1 Assess the AD support request							A/R	C							
AD.4.2 Prepare support							A	C		R					
AD.4.3 Fix PreSAT problems							A			R					
AD.4.4 Provide support						I	A			R					I
AD.4.5 Update documentation						I	A			R					I
AD.5.1 Evaluate and plan corrective maintenance							A/R	C		C		I			
AD.5.2 Perform ITSM Tools corrective maintenance							A			R					
AD.5.3 Adapt specifications and documentation						I	A			R				I	
AD.5.4 Execute FAT							A			R		I			

Table 4-1: AD RACI Table

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Communication interfaces with DG TAXUD A4/CPT

Interface description communication with DG TAXUD A4/CPT	Direction	Format
AD 1 Define Requirements		
Requirements document(s) (DLV.7.1)	Outgoing	CIRCA publication
Requirements document(s) (DLV.7.1) approved	Incoming	Formal approval confirmation via E-mail and/or mail
AD 2 Produce Specifications		
Specifications document(s) (DLV.7.1)	Outgoing	CIRCA publication
Specifications document(s) (DLV.7.1) approved	Incoming	Formal approval confirmation via e-mail and/or mail
AD 3 Perform, Design & Build		
Design, build and deployment deliverables (DLV.7.2) including documentation	Outgoing	CIRCA publication; CD/DVD as appropriate to the amount of data to be transferred
Design, build and deployment deliverables (DLV.7.2) including documentation approved	Incoming	Formal approval confirmation via E-mail and/or mail

Table 4-2: AD Communication interfaces with DG TAXUD A4/CPT

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4.4 Level 3: Application Development

Procedure	
<div>AD.1.1</div> <div>Assess the RfA</div>	<p><u>AD.1: Define Requirements</u></p> <p>AD.1.1: Assess the RfA</p> <p>The ITSM Tools Application Development Manager receives an RfA from DG TAXUD A4/CPT (with a copy sent to the ITSM PMA mailbox) to produce requirements documents. This RfA is assessed to check if it can be accommodated within the resource planning of the Application Development team.</p> <p>If so, input gathering procedure is started (AD 1.2). If there is a planning issue, the ITSM Tools Application Development Manager engages with DG TAXUD A4/CPT for discussion on the RfA planning requirements.</p>
<div>AD.1.2</div> <div>Gather all necessary input</div>	<p>AD.1.2: Gather all necessary input</p> <p>The ITSM Tools Analyst collects the relevant ITSM Tools requirements within the scope of the RfA. This will (in most cases) imply workshops and/or surveys with the ITSM stakeholders (and if needed with DG TAXUD/A4 CPT and NAs), which might differ according to the ITSM Tool at stake.</p> <p>The scope of this step is limited to capturing the requirements at all parties involved. The verification that the requirements are expressed properly, as well as prioritising the requirements, is done in step AD 1.3.</p>
<div>AD.1.3</div> <div>Create requirements document(s)</div>	<p>AD.1.3: Create requirements document(s)</p> <p>Out of the requirements collected, the ITSM Tools Analyst selects, defines, classifies and prioritises the requirements. Important influencing factors are: the business requirements, the ITSM COTS to be configured, the ITSM processes and the technical environment to be managed or worked with.</p> <p>This procedure includes:</p> <ul style="list-style-type: none"> • Selection: During the requirements gathering (AD 1.2), requirements are gathered from stakeholders involved; • Consolidation: All gathered requirements are ordered, structured and grouped into a comprehensive set of consolidated and

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	<p>classified requirements. The classification can be based on:</p> <ul style="list-style-type: none"> ○ Functional requirements are those that specify particular behaviours of a system; ○ Non-functional requirements address the need for a responsive, available and secure service, and deal with such issues as deployment, operations, sizing, system management, logging and audit trail, and security; ○ Usability requirements address the needs of the user and result in system features that facilitate user friendliness. <ul style="list-style-type: none"> ● Prioritisation: <ul style="list-style-type: none"> ○ The MoSCoW rules are used to achieve clear prioritisation of requirements. MSCW stands for: <ul style="list-style-type: none"> ○ Must have for requirements that are fundamental to the system. Without them, the system will be unworkable and useless. The Must Haves define the minimum usable subset; ○ Should have for important requirements for which there might be a work-around in the short term and which would normally be classed as mandatory in less time-constrained development, but the system will be useful and usable without them; ○ Could have for requirements that can more easily be left out of the version to be delivered; ○ Would have this requirement at later date if there is some time left (or in the future development of the system). ○ This prioritisation supports the decision making process to reduce the required functionality (due to cost or planning constraints) when designing the solution. <p>When COTS components are involved, this elementary process is executed with the start of one or more requirement gathering workshops with the specific ITSM and DG TAXUD/A4 CPT stakeholders.</p> <p>A complicating factor is that with the implementation of COTS, its specific functionality can enforce certain related operational processes and procedures to be changed. It is not always possible to adapt the COTS to the process/procedures, and then it is necessary to adapt the process/procedure in the way the COTS is to be used.</p> <p>When necessary, a feasibility study is succeeding the requirements specifications, since matching requirements and COTS capability needs to be proven.</p>
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<div data-bbox="284 246 359 271">AD.1.4</div> <div data-bbox="336 277 458 349">Finalise requirements document(s)</div>	<p>AD.1.4: Finalise requirements document(s)</p> <p>The ITSM Tools Application Development Manager engages with the ITSM stakeholders to review the requirement definitions.</p> <p>The outcome of this activity is the formal accepted Requirements Document(s) (part of DLV.7.1), following a formal review cycle.</p>
<div data-bbox="284 629 359 654">AD.2.1</div> <div data-bbox="316 683 474 707">Assess the RfA</div>	<p><u>AD.2: Produce Specifications</u></p> <p>AD.2.1: Assess the RfA</p> <p>The ITSM Tools Application Development Manager receives an RfA from DG TAXUD A4/CPT, to produce specifications documents. This RfA is assessed to check if it can be accommodated within the resource planning of the Application Development team.</p> <p>If so, input gathering is started (AD 2.2). If there is a planning issue, the ITSM Tools Application Development Manager engages with DG TAXUD A4/CPT for discussion on the RfA planning requirements.</p>
<div data-bbox="284 1088 359 1113">AD.2.2</div> <div data-bbox="301 1131 491 1182">Gather all necessary input</div>	<p>AD.2.2: Gather all necessary input</p> <p>This procedure takes care of the collection of ITSM Tools specifications, based on the requirements definitions as previously approved by DG TAXUD A4/CPT. This can imply additional workshops and/or surveys with the ITSM stakeholders (and if needed with DG TAXUD/A4 CPT and NAs), which might differ according to the ITSM Tool at stake.</p> <p>The focus of this step is for the ITSM Tools Analyst to capture and process all the specifications. It is not to ensure that the specifications are expressed properly. AD 2.3 will take care of that.</p>
<div data-bbox="284 1594 359 1619">AD.2.3</div> <div data-bbox="292 1637 499 1688">Create specifications document(s)</div>	<p>AD.2.3: Create specifications document(s)</p> <p>The ITSM Tools Analyst produces the definition of the specifications for the ITSM Tool to be developed or maintained.</p> <p>The following input is used to define the specifications:</p> <ul style="list-style-type: none"> • All information gathered in AD 2.2; • The ITSM Process Model describing in detail the ITSM processes and procedures; • Any relevant CSIP recommendations (see WP.8.7) regarding the ITSM Process Model in particular regarding the ITSM Tools;

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	<ul style="list-style-type: none"> • The requirements of all Business Threads to be supported; • The general specifications as mentioned in the Technical Annex, including, amongst others, the need for compliance with the DIGIT/DC SMT architecture; • The functionality features and design philosophy of the proposed ITSM COTS. <p>The specifications deliverables will be developed in close collaboration with the involved ITSM stakeholders and with DG TAXUD/A4 CPT, all this in line with the ITIL Application Development processes and the TEMPO development life cycle.</p> <p>When not involving COTS, specifications may take the form of use cases, which describe the interaction between a primary actor – end users, other systems, hardware devices ... - and the ITSM Tool itself, represented as a sequence of simple steps.</p> <p>Each use case is a complete series of events to achieve a specific goal, described from the point of view of the actor.</p>
<div>AD.2.4</div> <div>Finalise specifications document(s)</div>	<p>AD.2.4: Finalise specifications document(s)</p> <p>The ITSM Tools Application Development Manager engages with the ITSM stakeholders to review the specification definitions and ensures that they are accepted by DG TAXUD A4/CPT.</p> <p>The outcome of this activity is the accepted Specification Document(s) (part of DLV.7.1), following a formal review cycle.</p>
<div>AD.3.1</div> <div>Assess the RfA</div>	<p><u>AD.3: Perform Design & Build</u></p> <p>AD.3.1: Assess the RfA</p> <p>The ITSM Tools Application Development Manager receives an RfA from DG TAXUD A4/CPT to produce the design; build and deployment document(s). This RfA is assessed to check if it can be accommodated within the resource planning of the Application Development team.</p> <p>If so, input gathering is started (AD 3.2). If there is a planning issue, the ITSM Tools Application Development Manager engages with the DG TAXUD A4/CPT for discussion on the RfA planning requirements.</p>
<div>AD.3.2</div> <div>Analyse RfA</div>	<p>AD.3.2: Analyse RfA</p> <p>The ITSM Tools Analyst analyses the received RfA, to identify the work that needs to be done on COTS installation and/or development of ITSM Tools. Different cases may happen:</p> <ul style="list-style-type: none"> • If COTS is/are involved, the elementary process AD.3.3 is

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	<p>executed;</p> <ul style="list-style-type: none"> • If an ITSM Tool must be developed, the step AD.3.5 is started; • If both flows need to be executed, the COTS (AD.3.3) and development tracks (AD 3.5) are initiated in parallel.
<div>AD.3.3</div> <div>Order and install COTS</div>	<p>AD.3.3: Order and install COTS</p> <p>This procedure belongs to the Build phase of a COTS and it uses input from the following documents:</p> <ul style="list-style-type: none"> • Requirement definitions as approved by DG TAXUD A4/CPT; • Specification definitions as approved by DG TAXUD A4/CPT. <p>The actual requests for supplying the COTS and for preparing the specified infrastructure needed for development are initiated by the ITSM Tools Application Development Manager.</p> <p>During the Build phase, the ITSM Tools Developer makes the application and the operational model ready for deployment and application components are acquired.</p> <p>This setup phase is the period during which the ITSM Tools Developer installs the COTS in the development infrastructure.</p>
<div>AD.3.4</div> <div>Configure COTS</div>	<p>AD.3.4: Configure COTS</p> <p>This procedure, initiated after the installation of the COTS (AD 3.3), belongs to the Build phase of this sub-process.</p> <p>During this Build phase, the ITSM Tools Developer configures, integrates and tests the COTS components.</p> <p>Depending upon the complexity of the COTS environment, this configuration activity is a project in itself, and will need to be managed as such. For instance the implementation of a new Service Management tool or a new CMDB is very complex and time consuming. Both will require a proper project approach.</p> <p>In case of a mixed COTS/Software Development process, this step will be done in close cooperation with the procedure AD 3.5.</p>
<div>AD.3.5</div> <div>Develop ITSM tools</div>	<p>AD.3.5: Develop ITSM Tools</p> <p>This procedure belongs to the Build phase of an ITSM Tool and it uses input from the following documents:</p> <ul style="list-style-type: none"> • Requirement definitions as approved by DG TAXUD A4/CPT; • Specification definitions as approved by DG TAXUD

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	<p>A4/CPT.</p> <p>During the Build phase, the ITSM Tools Developer makes the application and operational model ready for deployment. Application components are coded on the development environment. Integration and regression testing are conducted on a separate test environment.</p> <p>This development phase is the period during which the ITSM Tools Developer builds and unit-tests the ITSM Tool. The way the logs will be produced depends on the programming framework used to develop an ITSM Tool. These logs are stored on some directories of the working environment disk and are auditable.</p> <p>In case of a mixed COTS/Software Development process, this step will be done in close cooperation with the procedure AD 3.4.</p>
<div>AD.3.6</div> <div>Prepare test plans, cases, data, configuration</div>	<p>AD.3.6: Prepare test plans, cases, data, configuration</p> <p>The purpose of this elementary process is to follow the actual development of an ITSM Tool (AD.3.5) and/or the actual configuration of a COTS (AD.3.4).</p> <p>The ITSM Tool Developer defines and develops the necessary test plans and test cases (for internal use within ITSM). The test environment is designed to be identical, or as close as feasible, to the anticipated production environment.</p> <p>Each individual test, known as a case, exercises a particular operating condition of the production environment or feature of the system, and will result in a safe or fail Boolean outcome.</p> <p>Each test case has particular input data, a formal description of the operational activities to be performed and a formal description of the expected results.</p> <p>The outcome of this procedure is that the ITSM Tool and/or COTS item is ready for a FAT.</p>
<div>AD.3.7</div> <div>Execute FAT</div>	<p>AD.3.7: Execute FAT</p> <p>This step, triggered by the ITSM Tool and/or COTS to be FAT ready, performs the tests defined in the test plans and builds the test report on the completed system.</p> <p>The FAT is run, in presence of the ITSM Tool Developer, and under supervision of ITSM QA/QC, and DG TAXUD A4/CPT on demand, against the supplied input data or using test plans to direct the test team. The obtained results are compiled into a FAT report, submitted to DG TAXUD A4/CPT for a FAT mission,</p>

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	<p>where DG TAXUD A4/CPT (or the contractor nominated by them) will come on site for verifying the FAT report. The results are compared with the expected ones. If there is a correct match for each test case, the test suite is pronounced to have passed and the next step (AD 3.8) is started. If not, the ITSM Tool and/or COTS may either be rejected or accepted on conditions previously agreed with DG TAXUD A4/CPT. In case of acceptance the next step (AD 3.8) is started; in case of rejection activity returns to AD 3.4 and/or AD 3.5.</p> <p>The result of this procedure is that the ITSM Tool and/or COTS FAT are completed.</p>
<div>AD.3.8</div> <div>Prepare deliverables, installation procedures and training</div>	<p>AD.3.8: Prepare deliverables, installation procedures and training</p> <p>This elementary process, triggered by a successful completion of the FAT of the ITSM Tool and/or COTS, takes care of the preparation of the necessary Design, Build and Deployment deliverables (part or all of DLV.7.2) and the preparation of the appropriate knowledge transfer to Technical Support.</p> <p>Depending on the purpose and content of the deliverable, the production process will vary. It does contain common ‘gather data’ (FAT-report, documentation for Technical Support ...), ‘write’ and ‘check’ activities.</p> <p>The results of this procedure are the Design, build and deployment document(s).</p>
<div>AD.3.9</div> <div>Finalise deliverables, installation procedures and training</div>	<p>AD.3.9: Finalise deliverables, installation procedures and training</p> <p>The ITSM Tools Application Development Manager engages with stakeholders to review the deliverables as listed in DLV.7.2 for completeness and exactness, and ensures that they are formally accepted by DG TAXUD A4/CPT.</p> <p>The DLV.7.2 deliverables will be subject to a formal T1/T2/T3 review cycle (see Section 9.2 in FQP main document).</p> <p>The results are:</p> <ul style="list-style-type: none"> • Finalised and approved Design, build and deployment document(s); • Dissemination of the ITSM Tools deployment information to Application Management; • Transfer of the appropriate knowledge and documentation to Technical Support.
	<p><u>AD.4: Provide AD Support</u></p>

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<div>AD.4.1</div> <div>Assess the AD support request</div>	<p>AD.4.1: Assess the AD support request</p> <p>It is only after an accepted FAT report that a delivery is moved on to the deployment phase of AM and/or ICT Infrastructure Management, where it will be subject to preSAT/SAT cycles (for a full release) or a qualification (for a patch).</p> <p>On successful completion, the delivery is then to be deployed in the operational environment by the ICT Infrastructure Management processes.</p> <p>In order to make this happen smoothly and efficiently, the ITSM Application Development process (ITSM Tools) will provide training and support, and will be fixing problems during the preSAT phase.</p> <p>Once the ITSM Tool delivery has entered into operation, the ITSM Application Management becomes responsible for the delivery of support.</p> <p>The ITSM Tools Application Development Manager receives an AD support request directly from either Application Management or ICT Infrastructure Management, in order to provide a support concerning the application development of ITSM Tools. This request is assessed about the exact nature of the support required.</p> <p>The Application Development Process (ITSM Tools) limits the support to preSAT or SAT related environments. In all other cases support needs will be handled within the ICT Infrastructure Management (WP 8.6).</p> <p>If a support is asked concerning an ITSM Tool, the step AD 4.2 is engaged. If preSAT problems are required to be solved, the elementary process AD 4.3 is started.</p> <p>If the assessment concludes to reject the demand, it is given back to Application Management and/or ICT Infrastructure Management processes, with the motivation for the rejection.</p>
<div>AD.4.2</div> <div>Prepare support</div>	<p>AD.4.2: Prepare support</p> <p>This step is triggered by the reception of a support request, coming from Application Management or ICT Infrastructure Management.</p> <p>It covers the design, build and deployment of the support for new ITSM Tools or their evolutive maintenance, as well as the documentation and the setup and maintenance of test data sets, by the ITSM Tools Developer.</p>

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<div>AD.4.3</div> <div>Fix PreSAT problems</div>	<p>AD.4.3: Fix preSAT problems</p> <p>This step is triggered by the reception of a support request, which currently comes directly from either Application Management or ICT Infrastructure Management.</p> <p>This procedure concerns solving issues that arise on the developed system during the preSAT/SAT cycle.</p>
<div>AD.4.4</div> <div>Provide support</div>	<p>AD.4.4: Provide support</p> <p>This elementary process, based on the support preparation (AD 4.2), concerns the actual provision of information and supporting material to the support requestor.</p>
<div>AD.4.5</div> <div>Update documentation</div>	<p>AD.4.5: Update documentation</p> <p>When necessary and if appropriate, the documentation contained in the deliverables DLV.7.2 will be updated to reflect the changes made during the support activity.</p> <p>All involved stakeholders (DG TAXUD/A4 CPT, Application Management, ICT Infrastructure Management) will be informed.</p>
<div>AD.5.1</div> <div>Evaluate and plan corrective maintenance</div>	<p><u>AD.5: Provide Corrective Maintenance</u></p> <p>AD.5.1: Evaluate and plan corrective maintenance</p> <p>On reception of a change implementation request from Change Management (once the RfC is approved), the ITSM Tools Application Development Manager performs a first evaluation and planning.</p> <p>An impact analysis will have been done previously under the Change Management process. Implementing bug fixes and/or corrections can imply large amounts of work and associated costs. Depending upon the relevancy on the case and the cost and development capacity involved, the CAB may decide to handle the change request differently.</p> <p>Corrective maintenance is any maintenance activity that is required to correct a failure that has occurred or is in the process of occurring. This activity may consist of repair, restoration or replacement of components.</p>
<div>AD.5.2</div> <div>Perform ITSM Tools corrective maintenance</div>	<p>AD.5.2: Perform ITSM Tools corrective maintenance</p> <p>Corrective maintenance will be done by the ITSM Tools Developer, on the basis of:</p> <ul style="list-style-type: none"> • The evaluation and planning resulting from AD 5.1;

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	<ul style="list-style-type: none"> • The RfCs received during the observed period and recorded in the Incident Management tool; • The approved recommendations following the CSIP. <p>As a result, new patches and/or releases of ITSM Tools components are produced for installation on a test environment. The distribution and installation is not within the scope of this procedure.</p> <p>In the case of a COTS implementation, the corrective maintenance can very well be depending upon external (3rd) party software suppliers and correcting the fault may not be achievable. This decision will be taken by communicating with the external party (e.g. the release roadmap from Adobe).</p>
<div>AD.5.3</div> <div>Adapt specifications and documentation</div>	<p>AD.5.3: Adapt specifications and documentation</p> <p>When necessary and if appropriate, the documentation delivered in line with the DLV.7.1 and/or DLV.7.2 deliverables will be updated, to reflect the changes made during the corrective maintenance.</p> <p>All involved stakeholders (DG TAXUD/A4 CPT, Application Management, ICT Infrastructure Management) will be informed.</p>
<div>AD.5.4</div> <div>Execute FAT</div>	<p>AD.5.4: Execute FAT</p> <p>A FAT is run, by the ITSM Tool Developer, in supervision of ITSM QA/QC, and DG TAXUD A4/CPT on demand, against the supplied input data or using an acceptance test script to direct the testers. The obtained results are compiled into a FAT report, submitted to DG TAXUD A4/CPT for a FAT mission.</p> <p>The outcome of this step is that the ITSM Tools FAT is executed. In case of acceptance, Release Management is triggered to start the installation procedure; in case of rejection activity returns to AD 5.2.</p>