

OWNER: CUST-DEV2	ISSUE DATE: 13/12/2010	VERSION: 1.01
<p>TAXATION AND CUSTOMS UNION DG</p> <p>SUBJECT:</p> <p>DLV-0.1-1_CHANGE MANAGEMENT</p>		
<p>CUST-DEV2</p> <p>[REMOVED]</p>		

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
INTRODUCTION	

DOCUMENT HISTORY

Version	Date	Description	Action (*)	Pages
0.01	13/08/2010	Submitted for Information	I	All
0.02	09/09/2010	Submitted for Review	R	All
0.11	21/10/2010	Internal review after Implementation of review Comments	I/R	All
0.12	25/10/2010	Submitted for Information		
0.13	03/11/2010	Internal Review	I/R	All
1.00	15/11/2010	Submitted for Acceptance		
1.01	13/12/2010	Re-submitted for Acceptance	I/R	ALL

(*) Action: I = Insert R = Replace

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
INTRODUCTION	

TABLE OF CONTENTS

DOCUMENT HISTORY	2
TABLE OF CONTENTS	3
LIST OF TABLES	4
TABLE OF FIGURES	5
1 INTRODUCTION	6
1.1 Scope	6
1.2 References	6
1.3 Acronyms and Abbreviations	6
1.4 Glossary	6
2 PROCESS OVERVIEW	7
2.1 Process Goal	7
2.2 Scope	7
2.3 Change Management Boundaries	7
3 ROLES AND RESPONSIBILITIES	8
4 CHANGE MANAGEMENT	9
4.1 Trigger Events	9
4.2 Change Definition	10
4.3 Procedure Input	11
4.4 Change Register and Registration	11
4.5 Change Impact Analysis	15
4.6 CUST-DEV2's Change Management Process	16
4.7 CUST-DEV2's Emergency Change Management Process	19

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
INTRODUCTION	

LIST OF TABLES

Table 1-1: Reference documents..... 6

Table 1-2: Acronyms and Abbreviations 6

Table 1-3: Glossary 6

Table 3-1: Roles and Responsibilities..... 8

Table 4-1: Change Request Status 12

Table 4-2: Priority of change request..... 13

Table 4-3: Change Tracking Activities 18

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
INTRODUCTION	

TABLE OF FIGURES

Figure 4-1: Impact Analysis..... 15

Figure 4-2: Change Tracking 16

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
INTRODUCTION	

1 INTRODUCTION

1.1 Scope

1.2 References

RD#	Title	Originator	Version	Date
[RD1]	TEMPO - Glossary of Terms (tmp-gen-gls)	DG TAXUD	2.04-EN	01-Aug-07
[RD2]	TEMPO - Change Management Reference Manual (tmp-ref-chm)	DG TAXUD	1.20-EN	11-Mar-09
[RD3]	Framework Quality Plan	CUST-DEV2	0.13-EN	

Table 1-1: Reference documents

1.3 Acronyms and Abbreviations

See Annex 19 for the full list of Acronyms and Abbreviations. These below are the relevant abbreviations for the Change Management Process.

Acronym or Abbreviation	Definition
CMDB	Configuration Management Database
DG TAXUD	Directorate General - Taxation and Customs Union
CDA	Centrally Developed Applications
RfA	Request for Action
RfC	Request for Change
RfE	Request for Estimate
TES	Trans-European System

Table 1-2: Acronyms and Abbreviations

1.4 Glossary

Term	Description
Change Board	The Change Advisory Board (CAB) is an advisory body made up of DG TAXUD IT, QAC, System Owners, Business Owners, Member States, CUST-DEV2 and the ITSM contractor. The CAB takes all decisions by consensus. If a consensus cannot be reached, escalation needs to take place with the relevant steering committee.

Table 1-3: Glossary

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
PROCESS OVERVIEW	

2 PROCESS OVERVIEW

2.1 Process Goal

Change Management is the process responsible for controlling the lifecycle of all changes. Its goal is also to ensure that standardised methods and procedures are used for efficient and prompt handling of all changes. The primary objective of Change Management is to enable beneficial changes to be made, with minimum disruption to IT Services. This process will be followed to classify, prioritise and either approve changes (whether corrective or evolutive), or reject them as out-of-scope.

2.2 Scope

The Change Management Process covers the following scope:

A) Changes to Centrally Developed Applications, due to Incident Management (corrective maintenance), Problem Management or Evolutive Requests coming from DG TAXUD. In this case, Member States are not involved in the decision process.

B) Changes to Trans-European Systems, due to Incident Management (corrective maintenance), Problem Management or Evolutive Requests coming from DG TAXUD. In this case involvement of Member States in the decision process about evolutionary changes can be required if impacts have been identified (see TEMPO EMCS Change Management Reference Manual [RD2]).

Note: Changes to contractual scope of services provided by CUST-DEV2 are managed by Framework Quality Plan. Please refer to the FQP for details of this procedure.

They can be registered and tracked in the Change Register, but they will follow a separate procedure for approval and implementation.

2.3 Change Management Boundaries

Change Management excludes:

- Other Change Management activities (logging RfCs in ITSM, updating ITSM RfCs, organising the CAB meetings, liaising with the Members States, etc.);
- Activities related to Release Management, which are discussed in Annex 05 to the Framework Quality Plan [RD3];
- Activities related to Configuration Management, which are discussed in Annex 02 to the Framework Quality Plan [RD3].

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
ROLES AND RESPONSIBILITIES	

3 ROLES AND RESPONSIBILITIES

Role	Responsibility
CUST-DEV2 Change Management Team	<p>The Change Management Team is responsible for:</p> <ul style="list-style-type: none"> • Registering changes in the Change Register; • Providing Change Impact Analyses; • Participation to the CAB; • Tracking changes up to closure. <p>The change management team is a virtual team; changes are handled by the application and system owners as defined in the Organization chart.</p>

Table 3-1: Roles and Responsibilities.

Depending on the scope for the Request for Change, the following roles can be involved in the Change Management Process:

- Programme Manager;
- Project Managers;
- Service Delivery Manager;
- Service Delivery Leads;
- Portfolio Manager;
- Service Desk;
- Application Managers.

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

4 CHANGE MANAGEMENT

CUST-DEV2's role within the Change Management process will be twofold:

- a. Providing change impact analyses on request of DG TAXUD (Evolutive),
- b. Raising Change Requests following a correction (Corrective)

Next to performing impact analyses on request, CUST-DEV2 will also **register and track changes** in order to ensure efficient and effective Release Management (see Annex 05 – Release Management). The following subsections detail what the expected changes are, how they are registered, and how they will be tracked up to their closure.

4.1 Trigger Events

The need for changes can arise, amongst others:

- As a result of a Bug Fix (Incident Management / Corrective Maintenance);
- As a result of Problems (Problem Management);
- From proactively seeking business benefits such as reducing costs or improving services (evolutionary changes);
- From a change in the technical, and/or functional and/or service related documentation requirements. When changes are needed, the formal Request for Change (RfC) procedure, as defined in TEMPO, should be followed;
- Through the Continuous Service Improvement Programme, CUST-DEV2 will also propose RfCs to be discussed with DG TAXUD in the Change Management Process.

For all RfCs (corrective and evolutive), DG TAXUD will give the final sign off. A contractual sign off will allow for the Change to be implemented.

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

4.2 Change Definition

A change is defined as any change to the software, the documentation (functional, technical, or service processes), components that are under the control of an application development, application software, documentation or procedures or is a requirement because of a corrective action, an incident root cause (Problem Management), a patch or an upgrade deployment.

CUST-DEV2 will also be involved in analysing impacts of changes that could also happen on an application (e.g. a change in the hardware configuration).

The Request for Change (RfC) details the change and progress through the Change Management process with the appropriate impact analysis and approvals. It includes a priority to indicate change urgency and a category to define change impact on the application, infrastructure, users, or business.

Requests for Change are approved by a Change Advisory Board and by DG TAXUD prior to being implemented, reviewed, and closed.

An Emergency Change is raised to fix Critical Incidents, if their resolution requires a change to be deployed in production, or to implement urgent specifications requirements.

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

4.3 Procedure Input

The input for the Change Management procedure consists of the following:

- Request for Changes (RfC) resulting from the Incident Management / Problem Management or from DG TAXUD IT requests; The RfC template is the version in TEMPO;
- Information from other processes (demand and capacity management, service improvement, configuration management, budget information, contract management);
- Improvement inputs: these can come from a variety of sources: organisational and operational changes at DG TAXUD, updates of the standards such as TEMPO, evolution of applicable documents such as PQP, updates of CUST-DEV2 methods are main sources of process/procedure changes;
- Other inputs might come from the continuous improvement programme (discussed in Annex 15 of the FQP [RD3]) or lessons-learned on day-to-day project work.

4.4 Change Register and Registration

While a Request for Implementation is initiated from DG TAXUD, the request for analysis of one or several RfCs will be initiated by ITSM through the Service Management Tool. All the Requests for Changes must be introduced using the RfC template from TEMPO. The issuer of the change will have to fill in this form and send it to ITSM to record the change initially.

In some cases, RfCs can be logged directly by DG TAXUD and escalated to CUST-DEV2.

A change can start its workflow within CUST-DEV2 only when the final approval was received by DG TAXUD (RfA – Request for Action)

The CUST-DEV2 Change Initiator will register it in the Change Register, which is a module in the Rational ClearQuest tool, and allocate a unique identification number (in chronological sequence) to the change request.

The RfC has to be send at least to the CUST-DEV2 functional mail box. CUST-DEV2 will confirm the registration with a unique reference number to the originator. The confirmation will be send by e-mail.

The Change Initiator can be one of the following persons:

- Programme Manager;
- Project Managers;
- Application Managers;
- Service Delivery Manager;
- Service Delivery Leads;
- Portfolio Manager.

Read access initially granted for DG TAXUD. Other contractor do not have direct access to the CUST-DEV2 Rational ClearQuest tool.

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

The Change Register follows the RfC through its lifecycle and collects all the information that is retrieved throughout the change process. Next to the unique identification number, the following information is tracked in the Change Register:

- Title;
- Change Description;
- Reason for Change;
- RfC Number;
- Status:

Value	Description
New	The Request for Change has been received
Analysed	The proposed change has been reviewed by the Change Manager, the impact analysis has been performed, the resolution has been defined and the RfC is ready for assessment before approval or reject.
Approved	The change resolution has been approved by the CAB.
Rejected	The change resolution has been rejected by the CAB
In Process	Resolution of the change is underway
Deferred	Change is in a pending state
Closed	Change has been executed successfully

Table 4-1: Change Request Status

- Priority:

Prioritisation is used to establish the order in which changes put forward should be considered.

Every RfC will include an assessment of the impact and urgency of the change.

The priority of a change is derived from the agreed impact and urgency. Initial impact and urgency will be suggested by the change initiator but may well be modified in the change authorisation process. Risk assessment is of crucial importance at this stage. The CAB will need information on business consequences in order to assess effectively the risk of implementing or rejecting the change.

Impact is based on the beneficial change to the business that will follow from a successful implementation of the change, or on the degree of damage and cost to the business due to the error that the change will correct. The impact may not be expressed in absolute terms but may depend on the probability of an event or circumstance; for

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

example a service may be acceptable at normal throughput levels, but may deteriorate at high usage, which may be triggered by unpredictable external events.

The urgency of the change is based on how long the implementation can afford to be delayed.

The table below gives examples of change priorities for corrective changes (fixing identified errors that are hurting the business) and for evolutive changes (that will deliver additional benefits).

Priority	Corrective change	Evolutive change
Immediate Treat as emergency change	Causing significant loss of revenue or the ability to deliver important services. Immediate action required	Not appropriate for enhancement changes
High To be given highest priority for change building, testing and implementation resources	Severely affecting some key users, or impacting on a large number of users	Meets legal requirements Responds to short term opportunities or requirements
Medium	No severe impact, but rectification cannot be deferred until the next scheduled release or upgrade	Maintains business viability Supports planned business initiatives
Low	A change is justified and necessary, but can wait until the next scheduled release or upgrade	Improvements in usability of a service. Adds new facilities

Table 4-2: Priority of change request

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

- Service Desk Number;
- Problem Management Number (if applicable);
- Change originator: name and team; Contact Information;
- Date originated;
- Person responsible for the impact analysis;
- Impact Assessment;
- Effect for not implementing the Change;
- Risk Assessment;
- Component(s) to be changed: SC, RFA, QTM Action, FQP or CQP;
- Impact in terms of delay and/or resource;
- Links to other RFCs;
- CAB recommendation;
- Change Authority Position;
- Date assigned;
- Date expected for completion of the impact analysis;
- Date expected for approval/rejection of the change request;
- Date expected for resolution of the change request;
- Date completed;
- Authorisation date and process;
- Release number;
- Release date;
- Deadline for alignment in Production;
- Back-out plan;
- Review date;
- Review results.

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

4.5 Change Impact Analysis

Impact Analysis consists in identifying the potential consequences of a change, or estimating what needs to be done to accomplish a change. The analysis covers the following aspects, e.g. operational, technical, functional, business, financial, service or resources aspects. Impact Analysis is very important in the decision-making process because it provides the necessary information to take the right decision.

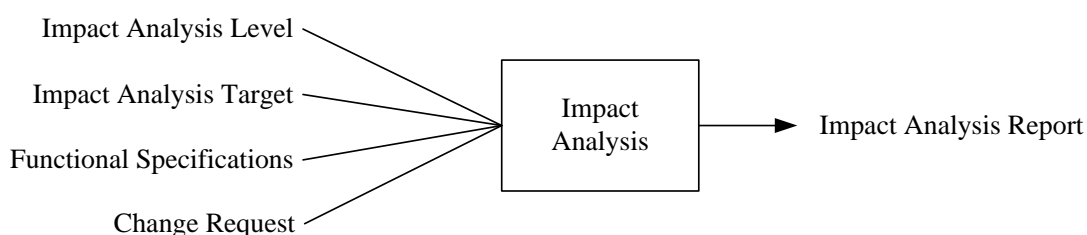


Figure 4-1: Impact Analysis

In the context of Change Management, an Impact Analysis will be used to estimate/evaluate at different levels the consequences of a change to a (pre-defined) target.

An Impact Analysis done within a well defined scope, based on complete and accurate data and at the right moment in the decisional process has the following **advantages**:

- It facilitates the adoption of the best decision;
- It facilitates the management of the risks related to the impact of the perturbing factor(s) on the identified target(s);
- It provides arguments in favour or against proposed solution(s);
- Due to its predictive nature, Impact Analysis facilitates the preparation of the necessary list of actions or plans to maximise the positive impact and minimise or eliminate the negative impact on the target.

The main categories of factors considered as **input** to the Impact Analysis process are:

- The Change Request – triggers the Impact Analysis process and represents the cause for which the consequences are analysed;
- The Functional Specifications – represents the ground rules composed by the Functional Specification Team Members;
- The Target of the Impact Analysis – represents the entity directly affected by the cause or for which analysis of impact is performed at an explicit request;
- The Level of Impact Analysis – specifies a filter to widen/restrict the scope of the Impact Analysis.

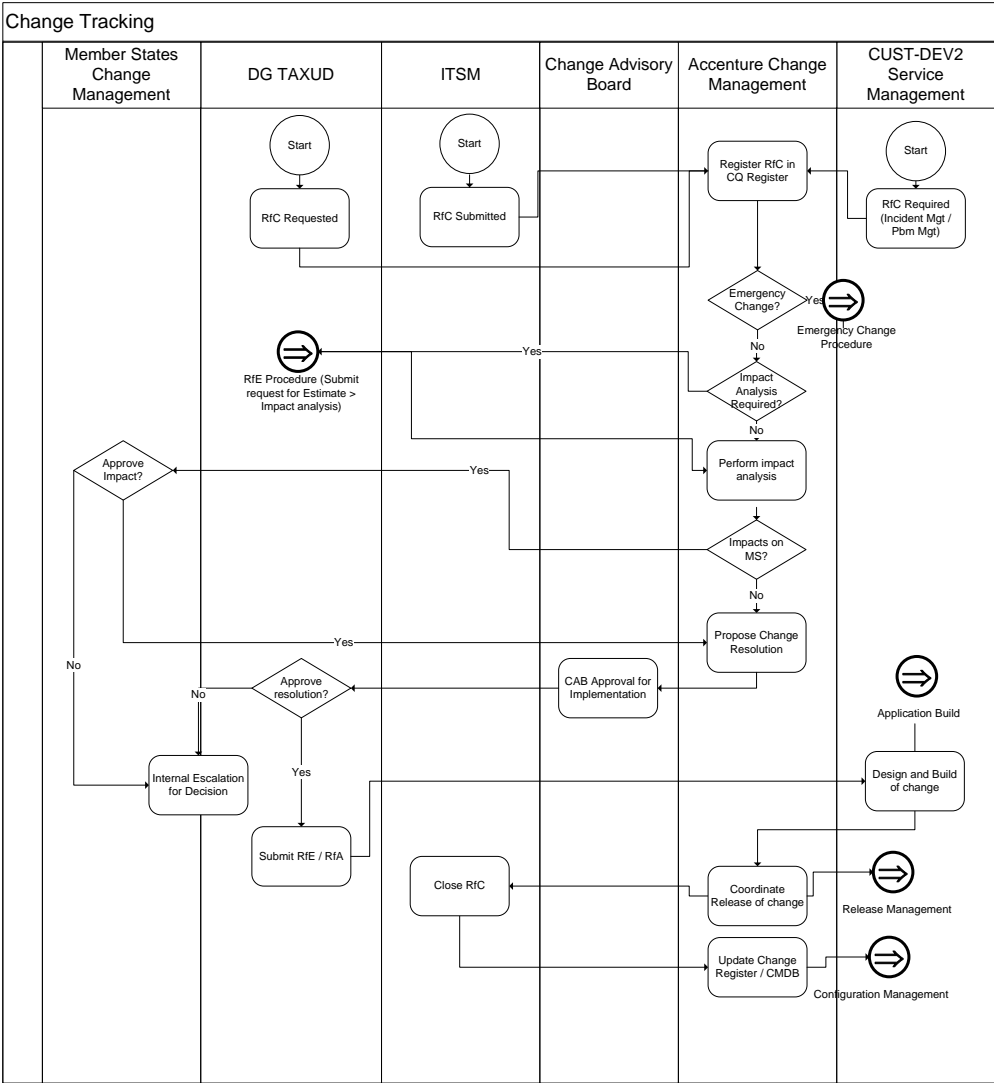


Figure 4-2: Change Tracking

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

4.6.2 The Procedure

The Change Tracking activities are described in **Error! Reference source not found..**

Step	Description
RfC Required	From the Incident Management / Problem Management Process, an RfC can be required for the implementation of a fix. CUST-DEV2 will register this RfC as part of the Change Management Process.
Register RfC in CQ	<p>As soon as an RfC is issued by DG TAXUD (ITSM) or if necessary for corrective maintenance / bug fix, by CUST-DEV2, the CUST-DEV2 Change Management team will register it in the Change Register.</p> <p>Registration takes place in ClearQuest (ADT Workflow).</p> <p>The urgency of the RfC will be assessed and if it is an Emergency Change, the specific Emergency procedure will be followed.</p> <p>Note: Emergency Changes are only applicable to Corrective Changes.</p>
Perform impact analysis	<p>If an impact analysis is required, CUST-DEV2 will communicate it to DG TAXUD to have a request for impact analysis submitted.</p> <p>CUST-DEV2 will perform the impact analysis. CUST-DEV2's Change Management team will execute this with the Service Management teams (functional, technical impact analysis) and record the results in the Change Register.</p> <p>An internal review cycle will take place before submitting the analysis to the CAB for assessing the impacts. In some cases, (for TES changes), the Member States should be involved in the Impact review cycle before validating the analysis.</p> <p>If the Member States do not approve the impacts, an internal decision should be made to assess whether the Change must be progressed or not.</p>
Propose change resolution	<p>When the impact analysis is completed, CUST-DEV2 proposes the Change Resolution and it is submitted to the CAB along with the impact analysis.</p> <p>The CAB validates the resolution. Final approval is given by DG TAXUD and an RfE / RfA is submitted to allow for progressing the Change Resolution into Build.</p>

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

Design and Build of change	<p>The Application Build process is triggered for building the changes.</p> <p>CUST-DEV2's Change Management team has a coordination role to ensure that the development activities are both resourced and completed to schedule. The change management team is a virtual team; changes are handled by the application and system owners as defined in the Organization chart. Authorised RfCs are passed to the Development Team. The changes are thoroughly tested in advance. Roll-back plans are prepared and documented. The tested changes are then submitted to the Change Manager, accompanied by a Factory Acceptance Test (FAT) report.</p>
Coordinate Release of change	<p>The Change Management process interfaces with the Release Management process for the deployment of the changes (perform acceptance tests, authorise deployment and deploy change).</p> <p>Again, CUST-DEV2's Change Management team has a coordination role during the release of the changes. After the successful acceptance tests and deployment of a change, the CMDB and the Change Record are updated. The Service Desk is informed and all the related problems and incidents are closed.</p>
Update Change Register / CMDB	<p>Once the Change is moved to production and accepted, the Change can be closed in ClearQuest.</p> <p>The CMDB (ClearCase) and all documentation will be updated.</p>

Table 4-3: Change Tracking Activities

CUST-DEV2	REF: [REMOVED]
CHANGE MANAGEMENT	
CHANGE MANAGEMENT	

4.7 CUST-DEV2's Emergency Change Management Process

In case of Emergency Changes (security breach, hot fix, urgent specifications requirements), the Application Owner has the possibility to review the need for change and coordinates the request with DG TAXUD to implement the Change urgently.

In case of an urgent request, an ad hoc CAB can be requested to assess the urgency of the Change.

An impact assessment will be performed directly within the CAB, and the decision for implementation will be made within the CAB directly.

If it is necessary, a decision could be made to organise regular Emergency CAB to absorb and process critical incidents if they occur.

An emergency release can be scheduled for the specified Change.

Build Phases and Test Phases may be sacrificed due to time constraints linked to the urgency of the change.

Documentation and updates to CMDB can take place retroactively.

Note: intermediary War Rooms / team meetings should be organised for all RfCs created from Critical Incidents