

DG-MIP/MIS

Strategy for ECMS Migration and Testing

ECMS-UTMSG

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Table of contents

Introduction	4
1. Strategy for ECMS Migration and Testing Principles	5
1.1 Principle of the Migration Approach	5
1.2 Principle of Classification of Stakeholders	6
1.3 Testing Principle	6
1.4 Principle of Migration organisation	6
2. General Roles and Responsibilities	7
2.1 Stakeholders involved in the ECMS testing and migration	7
2.1.1 <i>Active stakeholders</i>	7
2.1.2 <i>Supporting stakeholders</i>	8
2.1.3 <i>Informed stakeholders</i>	8
2.2 Responsibilities	8
3. Migration Framework	9
3.1 Guiding principles	10
3.2 Preparing the Migration	12
3.3 Conducting the Migration	12
3.3.1 <i>Execution of the Pre-Migration</i>	12
3.3.2 <i>Fulfilling Migration Pre-requisites: decision-making for Start of Migration</i>	13
3.3.3 <i>Execution of the Preparation Week and Migration Weekend</i>	14
3.3.4 <i>Reporting</i>	14
3.4 Post-Migration	15
4. Testing Framework	16
4.1 Introduction	16
4.2 Test Stages and Conditions	16
4.2.1 <i>Test Stages Content</i>	16
4.2.2 <i>Testing Tools</i>	18
4.3 User Testing Stages	19
4.3.1 <i>Overview</i>	19
4.3.2 <i>Test Environments</i>	19
4.3.3 <i>Test Environments Schedule</i>	20
4.3.4 <i>UT Timeline and Duration</i>	20
4.3.4.1 <i>Incident and Defect Management</i>	22
4.3.4.2 <i>Reporting</i>	23
4.3.5 <i>Phases for User Testing</i>	23
4.3.5.1 <i>Connectivity Testing Phase</i>	23

4.3.5.2	<i>Central Bank Testing Phase</i>	25
4.3.5.3	<i>Community Testing Phase</i>	26
4.3.5.4	<i>Operational Testing Phase</i>	28
4.3.5.5	<i>Business Day Testing Phase</i>	29
4.3.5.6	<i>Contingency Testing Phase</i>	29
4.3.5.7	<i>Migration Testing Phase</i>	29
4.3.5.7.1	<i>Migration testing Coverage</i>	30
4.3.5.7.2	<i>Migration testing planning</i>	30
4.3.6	<i>Entry and Exit Criteria for the UT stage</i>	31
5.	Communication Framework	34
5.1	Scope	34
5.1.1	<i>In-scope</i>	34
5.1.2	<i>Out of scope</i>	35
5.2	Communication principles	35
5.2.1	<i>Follow defined lines of communication</i>	35
5.2.2	<i>Use of defined communication channels</i>	35
5.2.3	<i>Clear communication</i>	35
5.3	Communication towards the migration actors	36
5.3.1	<i>Target audience</i>	36
5.3.2	<i>Communication process</i>	36
5.3.3	<i>Type of communicated information</i>	36
5.3.4	<i>Communication channel</i>	36
5.4	Communication between Active UT Stakeholders	37
5.4.1	<i>Target audience</i>	37
5.4.2	<i>Communication process</i>	37
5.4.3	<i>Type of communicated information</i>	38
5.5	Responsibilities	38
5.5.1	<i>The National Service Desks</i>	38
6.	List of Acronyms	39
7.	Glossary	41

Introduction

In accordance with its mandate, the User Testing and Migration Subgroup (UTMSG) of the ECMS Working Group (ECMS-WG) elaborates with the present document a migration and testing strategy for ECMS with a view to ensure a smooth transition from the current collateral management systems (CMSs) of Eurosystem NCBs to the new Eurosystem Collateral Management System (ECMS) for the collateral management functionalities. A Strategy for ECMS Migration and Testing is needed for the ECMS-UTMSG which establishes a corner stone for the elaboration of ECMS-UTMSG deliverables.

The Strategy for ECMS Migration and Testing document is structured as follows:

- Strategy for ECMS Migration and Testing Principles – list important principles;
- General roles and responsibilities – identification of ECMS stakeholders and allocation of respective roles and responsibilities;
- Migration framework – definition and elaboration of a specific strategy to coordinate all activities required for preparing the migration process from the ECMS stakeholders' perspective and their interdependencies;
- Testing framework –description of how the ECMS Actors will test the adaptation of their internal systems to the ECMS and perform all required testing, including testing the migration as part of preparations for the ECMS migration;
- Communication framework – definition of the communication flows between ECMS stakeholders to ensure efficient coordination of testing and migration execution during the testing and migration period.

All the acronyms used in this document are defined in chapter 6 List of Acronyms.

1. Strategy for ECMS Migration and Testing Principles

The ECMS is a harmonised and standardised pan-European service with common functionality across different countries and jurisdictions. The figure below provides an overview of the ECMS highlighting the interactions with different TARGET Services, ECB and ESCB services applications, ECMS Actors and NCBs local applications.

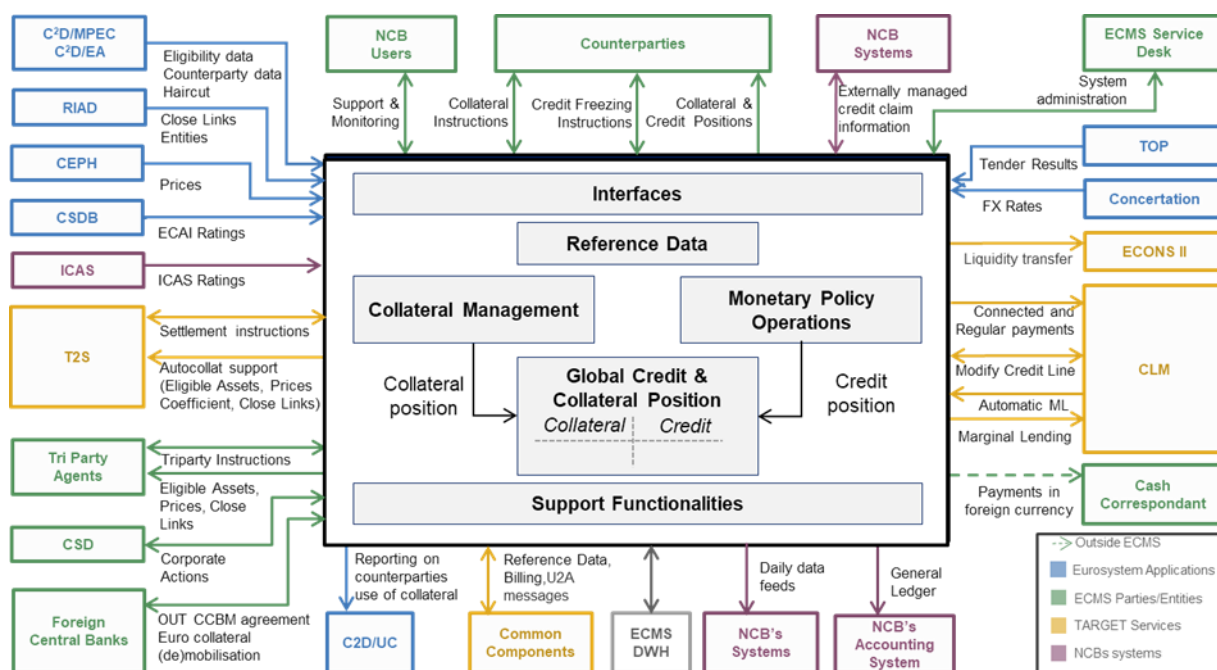


Figure 1 ECMS interactions with other systems/applications

1.1 Principle of the Migration Approach

The ECMS migration follows a big-bang approach. In the big-bang approach all the NCBs and their communities participating in the ECMS will be migrated simultaneously so that all participants are live in Production from the start for the collateral management functionalities that are moved by the NCBs from local CMSs to the new ECMS. A robust readiness strategy will ensure that preparedness of the relevant stakeholders (NCBs and their communities) is carefully monitored with distinct scenarios in case NCB, Counterparties (CPTYs) or other actors are not ready for the go-live. As a part of migration preparation, relevant contingency measures will be in place, including the definition of fall-back arrangements and roll-back procedures.

1.2 Principle of Classification of Stakeholders

Due to the divergent needs and requirements for each stakeholder group, ECMS stakeholders are identified and classified in the Roles and Responsibilities chapter of this document (chapter 2).

1.3 Testing Principle

The Testing Framework chapter provides more details on the user testing (UT) plan both for the ECMS community and other stakeholders. The Testing Framework chapter will deal with the overall UT plan, the usage of the test environment. It will contain details on all UT phases i.e. Central Bank testing, Community testing, Operational testing, Business day testing and Migration testing and define the incident and defect management during the UT stage. The ECMS big-bang migration approach relies on a strong testing framework which defines a clear set of responsibilities of all relevant stakeholders during the testing period. In order to reduce migration risks, all planned migration activities are tested. The NCBs and their communities participate in different pre-migration and migration (dress) rehearsals of the migration activities.

1.4 Principle of Migration organisation

The ECMS migration is organised into preparation and execution phases. The preparation phase is used to prepare the baseline migration deliverables. During the execution phase, the migration process defined in the preparation phase is executed, upon agreement of the decision making bodies (level 2 as described in chapter 2.2).

2. General Roles and Responsibilities

This chapter clarifies the general roles and responsibilities of the stakeholders involved in the UT and migration.

2.1 Stakeholders involved in the ECMS testing and migration

This section describes the stakeholders and respective groups of stakeholders that are involved in the ECMS UT and migration depending on the level of their participation (active, supporting and informed).

2.1.1 Active stakeholders

The below actors are actively involved in ECMS UT and migration activities:

- ECB
- NCBs
- TARGET2 and T2S service desk and ECMS service desk;
- CPTY
- CSDs
- TPAs
- NSPs

The operators and project teams of the following ESCB applications are actively involved in UT and migration:

- C2D-MPEC
- C2D-EA
- C2D-UC
- RIAD
- CEPH
- CSDB
- Concertation
- TOP
- EXDI

2.1.2 Supporting stakeholders

Supporting ECMS UT and migration stakeholders are those entities whose business processes do not change as a direct result of the migration, or who have no data to migrate.

- ECMS-WG, MIB, T2S CSG, TSWG

2.1.3 Informed stakeholders

Informed ECMS UT and migration stakeholders are entities, fora and bodies that are not actively involved in any ECMS migration activities, but that need to be kept informed about the overall process.

- Other ESCB committees (e.g. MIPC, Ami-SeCo, AMICO, IAC, ITC, LEGCO, MOC, COMCO, STC, PSC)

2.2 Responsibilities

- **Level 1** of governance (ECB Governing Council) is the ultimate decision-making body for the ECMS project;
- **Level 2** of governance (the MIB, ECB and NCBs) is responsible for the overall migration. NCBs are responsible for adapting their internal systems and interfaces to the required specifications. Each NCB shall set up its own migration project plan and make sure that it and its community can migrate to ECMS;
- **Level 3** of governance (4CB) will build and operate the system based on the approved project documentation (e.g. User Detailed Functional Specification, Manual of Operational Procedures, TARGET Services Connectivity Guide) for the benefit of the ESCB. The 4CB is responsible for the provision of all technical tools and resources necessary to provide the system to ECMS Actors. They provide support to ECB and ECMS Actors regarding their migration and testing activities;
- **Other ESCB committees** are kept informed about the overall progress of ECMS project and communicate within their areas of responsibility;
- **NSPs** are responsible for the preparation of their respective deliverables and ensuring that NSPs agreement are in place for the start of connectivity test;
- **All ECMS actors actively involved in UT and migration** are responsible for their own readiness and migration.

3. Migration Framework

This chapter describes how the migration will be handled and the activities that should be conducted by the active stakeholders as defined in chapter 2.1.1 in order to ensure a smooth and successful migration to the ECMS.

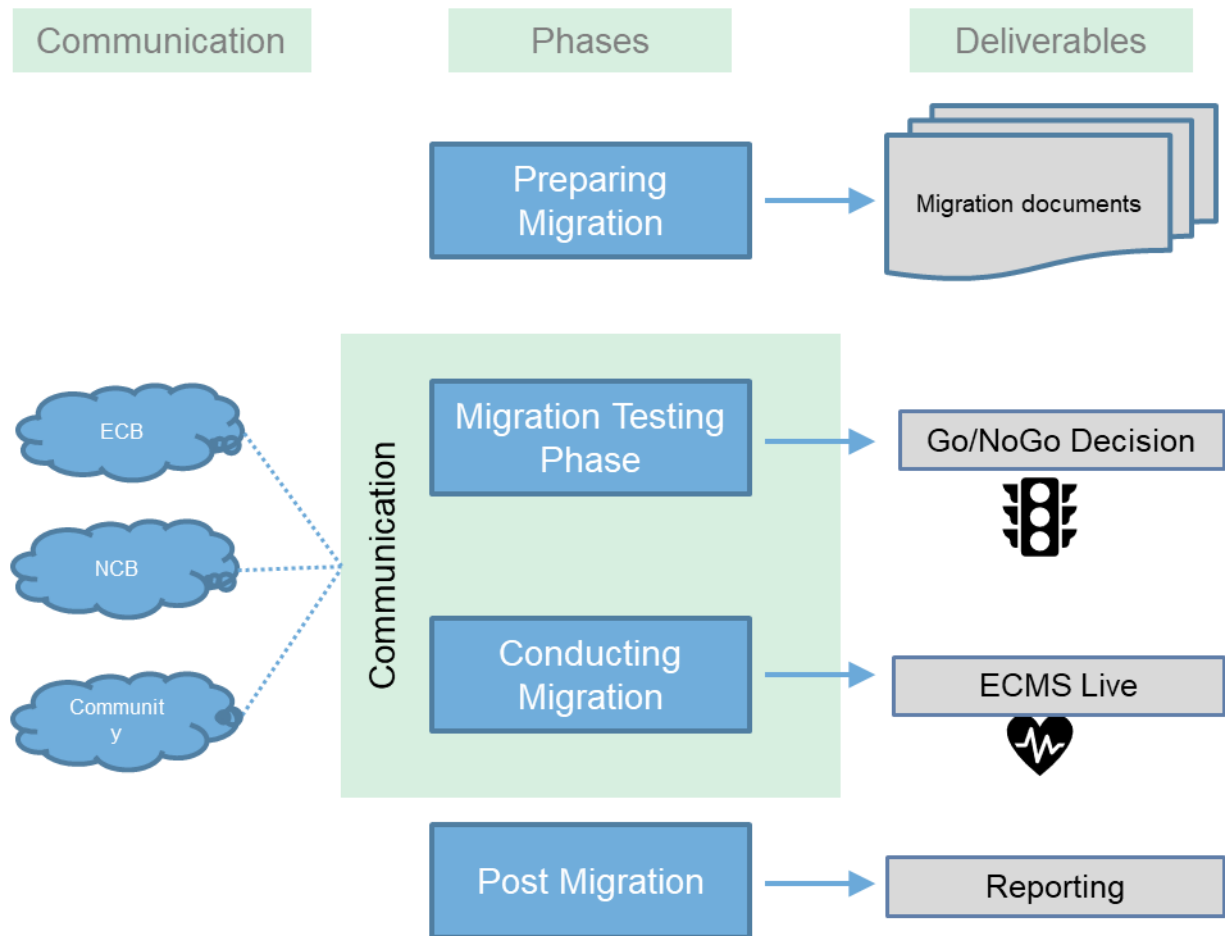


Figure 2 Migration overview

From a time perspective, the migration work is split into four major parts:

1. **Preparing Migration:** covers activities related to the planning, elaboration of the migration deliverables, migration risks and mitigation measures;

2. **Migration testing phase:** covers the migration testing and the reporting of its completion by the relevant stakeholders. It is described in Chapter 4.3.5.7 Migration Testing Phase;

3. **Conducting Migration:** covers the activities carried out for the pre-requisites, the execution of the migration, the reporting of its completion by the relevant stakeholders;

4. **Post Migration:** covers the activities carried out after the migration weekend.

The migration relevant activities, such as preparing and executing migration testing is addressed in chapter 4 Testing Framework.

Post migration activity under the remit of ECMS-UTMSG includes reporting. Other post migration activities conducted by NCBs such as the decommissioning of local CMS are not covered in this document.

3.1 Guiding principles

In order to ensure the efficient and effective organisation of the ECMS migration, the migration process should adhere to the following principles:

- The Eurosystem is responsible for the readiness of the ECMS Production environment. This includes but is not limited to the verification of its compliance with the user requirements, specifically but not exclusively in terms of technical performance and business continuity capability, as well as the communication of the results of this verification to the ECMS stakeholders;
- The ECMS-WG is in-charge of defining the content of harmonised registration forms for all ECMS Actors. These forms will be approved by the MIB and made available to all NCBs, which can make them available to other ECMS Actors where appropriate. Forms will be available at the latest at the beginning of the user testing phase and refined until the final version for the ECMS go-live. The NCBs ensure that they are available to all other active ECMS stakeholders well in advance of the go-live date. The registration forms will be used to collect the reference data to be migrated to ECMS. A part of these reference data is needed for the Connectivity testing;
- The ECMS operator is responsible for collecting the registration forms from NCBs and through them from CSDs and TPAs, to upload and maintain NCBs' reference data (e.g. NCB administrators, set-up of parties, etc.) sufficiently in advance of the go-live to ensure timely access for NCBs, CSDs and TPAs; the same responsibility holds true for the test environments;
- Each NCB is responsible for collecting the registration data of its community, and for creating and maintaining its CPTYs reference data sufficiently in advance of the go-live, to ensure timely

access to relevant reference data for its community; the same responsibility holds true for the test environments;

- The workflows of the user registration process are defined in the Connectivity Guide and are not further elaborated in this document (this includes CGU Subscription, the connectivity to ESMIG, selection of NSPs etc);
- Conducting the migration is organised in two phases:
 - Pre-migration: contains all activities that must be performed before migration (e.g. network connection, reference data input);
 - Migration: contains all activities to be performed during the preparation week (activities that can be performed in order to limit the activities on the migration weekend, such as receiving all data from external sources in order to initialise the ECMS database, or migration of other reference data considered too volatile for the pre-migration) and the migration weekend (including the migration of transactional data) for the system to be fully operative as from the go-live date;
- The connectivity phase starts in Production at least 1 month after the end of connectivity testing in Pre-Production environment and at least 4 months before the beginning of the pre-migration;
- Pre-migration will start, at the earliest 3 months before the go-live¹ to allow for the fulfilment of the migration pre-requisites (see section 3.3.2). In addition to the use of the ECMS GUI during the pre-migration period, 4CB will provide migration tools (e.g. DTT) to upload reference data;
- At the beginning of the migration weekend in Production each NCB is responsible for initialising the transactional data in the ECMS;
- Once the point of no-return is reached, it is not envisaged to cancel or even postpone the go-live. From then on, the “fix forward” approach is taken: whenever an issue is detected, it must be solved to continue the process;
- The fall-back scenarios which lead to staying with local CMS should be defined as contingency scenarios;

¹ Some pre-migration activities need to be performed to execute the connectivity testing in Production, hence pre-migration is split into 2 parts: a part 1 is executed as part of the connectivity testing and a part 2 is starting at the earliest 3 months in advance of go-live.

- The go/no-go decision has to be taken 4 weeks before the migration weekend by the MIB. If a no-go decision is made, a fall-back scenario to stay with the local CMS solution as it is now will be activated.

3.2 Preparing the Migration

Migration preparation covers the planning and elaboration of the migration deliverables, as well as the identification of migration risks and the elaboration of the mitigation measures. It encompasses the following activities:

- Elaboration of the migration plans and other necessary deliverables required for the migration execution;
- Identification of risks related to the migration execution for all participants in a big-bang migration approach;
- Elaboration of the envisaged risk mitigation measures including carrying on some activities either during the pre-migration or preparation week, or after the migration weekend and possible contingency scenarios;
- Preparation of the Production environment and the detailed migration steps up to, and including, the migration weekend;
- Elaboration of the structure and elements of the migration profile for each ECMS active stakeholder in order to give an overview of the set-up of all ECMS Actors on the first business day in ECMS.

3.3 Conducting the Migration

The changeover is a shared responsibility of all actors actively involved in migration and the 4CB. For this purpose, in order to ensure a successful changeover to the ECMS, the readiness of the NCBs and their communities is of utmost importance.

3.3.1 Execution of the Pre-Migration

The Pre-Migration is executed along with the Pre-Migration Schedule (MS/Project Plan) which shows the detailed activities, their duration and their dependencies. The monitoring of the activities is performed centrally by the ECB team in charge of the migration. Several Pre-Migration Check Points (PMCPs) are part of the plan and their timely completion ensures the smooth execution of the pre-migration. In case of significant deviations to the planned PMCPs, an escalation is triggered.

3.3.2 Fulfilling Migration Pre-requisites: decision-making for Start of Migration

The final decision on whether the migration can go ahead will be taken by the Eurosystem. A “confirmation date” is considered necessary to decide whether the migration will take place or not. The go/no-go decision by the MIB should be taken four weeks before the planned migration date. A report as mentioned in chapter 3.3.4 Reporting will be created and presented to the decision-making bodies (ECMS-WG, MIB) for the migration decision, presenting the results of migration testing, of pre-migration activities and the readiness of all involved actors. In case of serious failures during testing activities, the decision not to migrate can be taken even earlier.

This confirmation date is a check point that the following activities have been completed:

At Eurosystem level

- Availability of the Production environment by 4CB;
- Networks ready for Production;
- Acceptance of ECMS by the Eurosystem;
- Receipt of all Registration forms by the ECMS Operator;
- Set up of NCBs, CSDs and TPAs by the ECMS Operator;
- Set-up of System data and Parameters by ECMS Operator;
- All critical defects encountered during the testing phase were corrected and successfully retested;
- A plan for resolving non-critical defects has been agreed by the Eurosystem;
- The system’s compliance with specific non-functional requirements, in particular related to technical performance, business continuity and information security, was validated by the Eurosystem;
- The necessary legal arrangements are established within the Eurosystem;
- At least the critical operational procedures have been successfully tested with all relevant ECMS Actors;
- Readiness of the Eurosystem systems (T2S, CLM, ESCB Services, Common Components etc.) to interact with ECMS and completion of relevant test;
- NCBs, CSDs and TPAs are connected to the Production environment;
- Availability of migration tools.

At NCB and Community level

- Completed network registration for Production;
- Successful connectivity tests on Production;
- Filling-in and submission of the Registration Forms for Production;
- Successful completion of pre-migration in Production (including set-up in T2S, CLM, ESCB Services and Common components etc.);
- Set up of CPTYs by NCBs;
- Readiness of the internal systems to interact with ECMS and relevant tests completed;
- Confirmation by the NCBs of their readiness and that of their community to start migration weekend activities;
- Confirmation of the necessary reference data upload.

3.3.3 Execution of the Preparation Week and Migration Weekend

The phase consists of the actual preparations for live operations and the execution of the tasks on the ECMS Production environment, in particular all activities that need to be carried out during the preparation week and the migration weekend. The preparation week and migration weekend are executed according to the Migration Weekend Playbook which shows the detailed activities, their duration and their dependencies. The monitoring of activities is centrally done by the ECB team in charge of the migration. Several Migration Check Points (MCPs) are part of the plan, the timely completion of which ensures the smooth execution of the preparation week and migration weekend. In case of significant deviation to the planned MCPs, an escalation is triggered.

3.3.4 Reporting

Migration reporting will include a report for the pre-migration and a report after the migration weekend. The ECB project team and NCBs shall together define the migration reporting framework and input template during the migration preparation phase. The reporting template which is defined for the pre-migration, preparation week and migration weekend in Production will also be used for pre-migration, preparation week and migration weekend tests. The results of the pre-migration, preparation week and migration weekend will be consolidated by the ECB in a report and delivered to the respective project governance bodies.

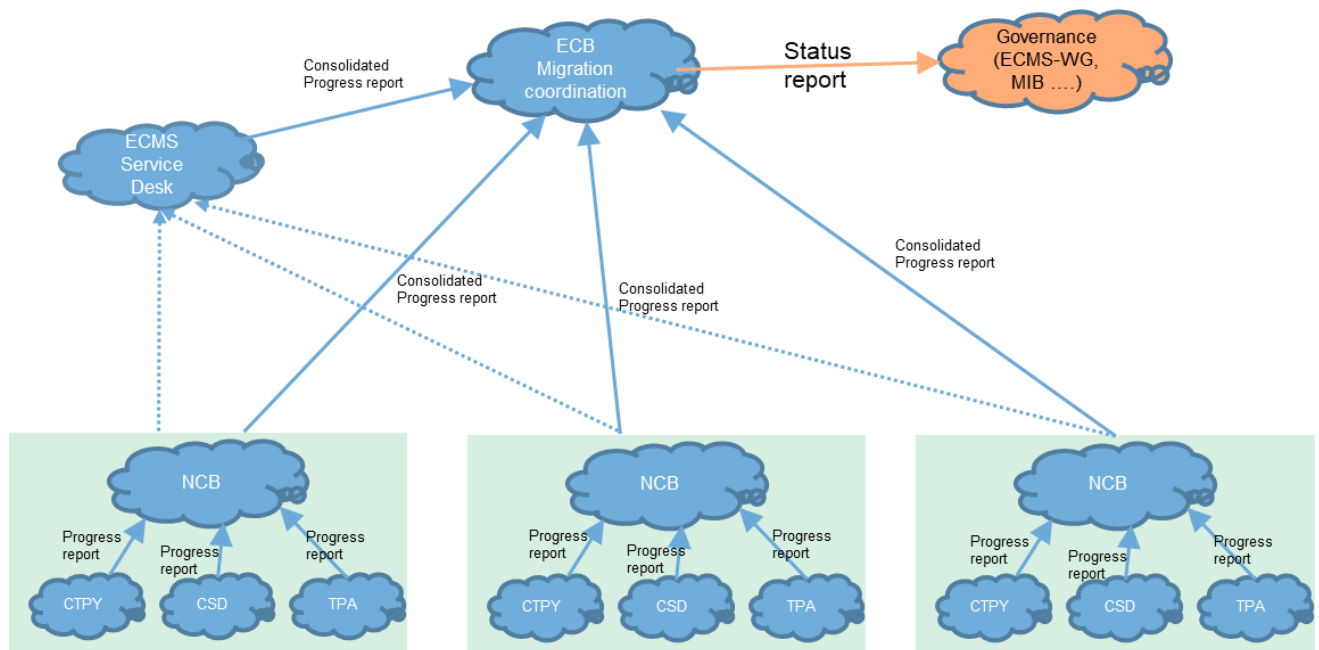


Figure 3 Migration reporting

- During migration the CPTYs, CSDs and TPAs will report on their progress to the NCB at defined checkpoints as per Pre-Migration Schedule and Migration Weekend Playbook. The NCB will then consolidate and report on the progress of their communities to ECB.
- During migration (dress) rehearsals, ECB shall consolidate the input received from NCBs who will also consolidate the input from their CPTYs, CSDs and TPAs. The (pre-) migration test report shall highlight the status of the migration test for each NCB and its community reflecting their readiness to successfully complete the migration tests.
- CPTYs, CSDs and TPAs shall report only to their respective NCB.
- Reporting tools between NCBs and CPTYs, CSDs and TPAs shall be defined at national level.

3.4 Post-Migration

This phase covers the activities to be carried out after the big-bang migration weekend. This includes the reporting on the results of the migration to the relevant stakeholders. The criteria for a successful migration have to be defined.

Decommissioning of the local CMSs of NCBs will be managed locally by NCBs and does not concern other stakeholders.

4. Testing Framework

4.1 Introduction

The purpose of this chapter is to define the testing framework which describes how ECMS Actors will test the ECMS functionalities and perform the required testing in preparation for the ECMS migration. This chapter does not cover release testing after the ECMS go-live.

The testing framework seeks to define a set of responsibilities and activities for all relevant stakeholders during the testing period. Strong testing governance and an appropriate escalation procedure are defined in order to ensure that all issues are addressed in a timely manner with the right priority.

The chapter presents the testing stages before distinguishing the testing principles. These cover the two main testing stages, the Eurosystem Acceptance Testing stage (EAT) and the User Testing (UT) stage, which includes testing phases for central bank testing, community testing, business day, operational and migration testing and the testing of the interrelations with different TARGET Services, ECB and ESCB services applications, ECMS Actors and NCBs local applications.

4.2 Test Stages and Conditions

The testing period is split between two different testing stages and will be performed in two different test environments: the Interoperability test environment (EAC) and the Pre-Production environment (Pre-Prod). The following section will elaborate on the test stages, the environments that will be used, the content of each testing stage and the tools that will be available.

4.2.1 Test Stages Content

The test stages are defined as follows and will be further detailed in the related subsections:

- Eurosystem Acceptance Test Stage (EAT)
 - Connectivity testing
 - EAT Phase 1
 - EAT Phase 2

- User Testing Stage (UT)
 - Connectivity testing
 - Central Bank testing
 - Community testing phase 1

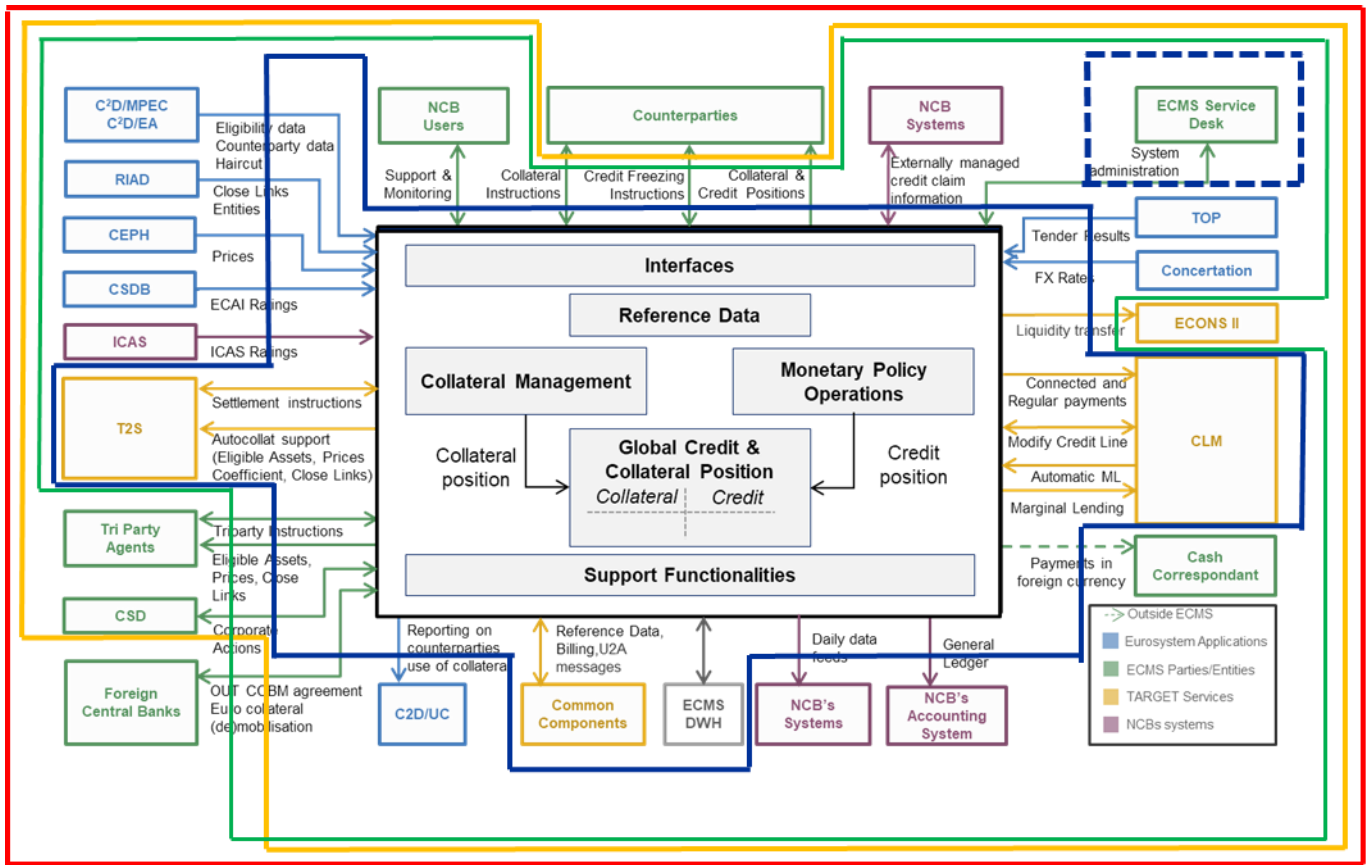
- Community testing phase 2
- Business day testing
- Operational testing

Migration rehearsals will be executed under different UT phases.

Each test stage is subject to entry and exit Criteria. Exit criteria must be fulfilled in order to progress to Production. Further entry and exit criteria may be defined between the different UT phases in the ECMS ToR.

The figure below provides a high-level functional scope showing interactions with different TARGET Services and ESCB services applications, ECMS actors and NCBs local applications during EAT, Central Bank Testing phase and Community testing phase of UT stage.

- EAT– The blue solid and blue dotted lines indicate the high-level functional scope of the EAT execution phase. ESCB services applications will not be connected during the EAT phase 1, however EAT will test using the data upload of the files from the ESCB services;
- Central Bank testing – The green line indicates the high-level functional scope of the Central Bank testing phase. All ESCB services applications, ECMS DWH will be connected from the start of the CBT phase;
- Community testing phase 1 – The yellow line indicates the high-level functional scope of the Community testing phase 1. CPTYs and non-Euro Area CBs will not be involved in Community test – phase 1;
- Community testing phase 2/ Business day testing/ Operational testing – The red line indicates the high-level functional scope of the Community testing phase 2/ Business day testing/ Operational testing. This phase aims to test the entire functional scope of the ECMS.



Legend

- EAT
- Central Bank testing
- Community test – phase 2/Business Day/Operational testing
- EAT – involved
- Community test – phase 1

Figure 4 ECMS interactions with other systems/applications for EAC and UT phases

4.2.2 Testing Tools

4CB provides the following tool:

- **Simulators for T2S and CLM** - to simulate answers from T2S and CLM following an ECMS outgoing message.

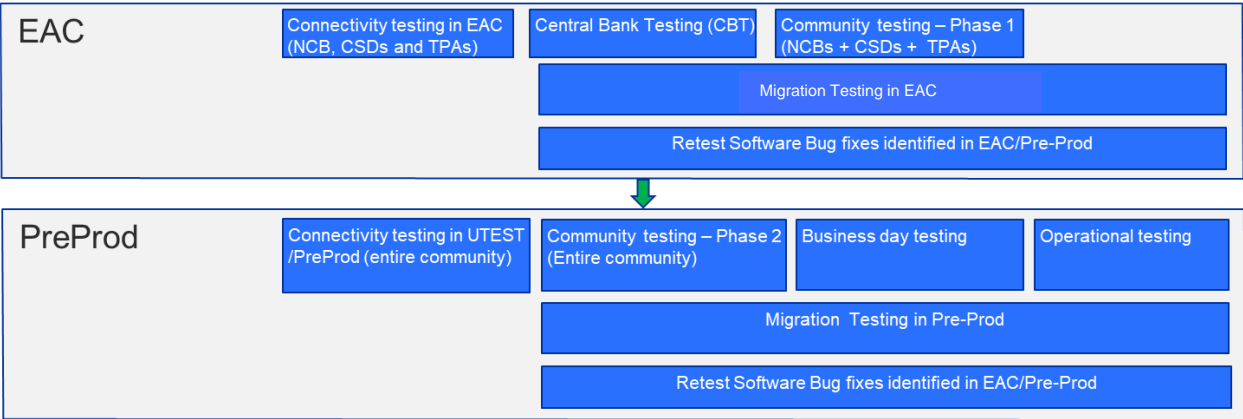
4.3 User Testing Stages

4.3.1 Overview

The UT stage is the test stage where the ECMS actors can assess the services against their business needs. First, the NCBs will be involved, and then all ECMS actors. This subchapter provides information and descriptions of the UT stage, its duration, content.

4.3.2 Test Environments

Two test environments, EAC and Pre-Prod are available for ECMS testing. Testing is split across EAC and Pre-Prod based on the availability of ECMS Actors in given environment. In the EAC environment NCBs, CSDs and TPAs can perform CBT and Community testing phase 1. In the Pre-Prod environment, all ECMS Actors will be involved in Community testing phase 2, Business Day testing and Operational testing. The figure below shows the different testing stages/phases taking place in two test environments.



Note on the chart: the order, the length and the parallelism of boxes does not reflect the sequencing of the different phases/rehearsals indicated in them.

Figure 5 UT stage in ECMS test environments

While the EAC environment will have the lower capacity of the planned ECMS Production capacity, the Pre-Prod environment will be able to cope with 100% of the ECMS planned Production capacity. The exact specifications of both environments will be elaborated in the ECMS ToR. In any case the test environments provided for all testing stages should have sufficient capacity to ensure smooth testing and allow for sufficient test coverage.

The table below shows the dates when T2S and CLM interconnection is available for ECMS EAC and Pre-Prod environments.

Service	ECMS User Testing in EAC	ECMS User Testing in Pre-Prod
T2S	From 16 January 2023 onwards	Three slots: 1. From 3 July 2023 until 20 September 2023 2. From 27 November 2023 to 10 April 2024 3. 24 June 2024 onwards
CLM	From 16 January 2023 onwards	Three slots: 1. From 3 July 2023 until 20 September 2023 2. From 27 November 2023 to 10 April 2024 3. 24 June 2024 onwards

Table 1. Interconnection with TARGET Services

4.3.3 Test Environments Schedule

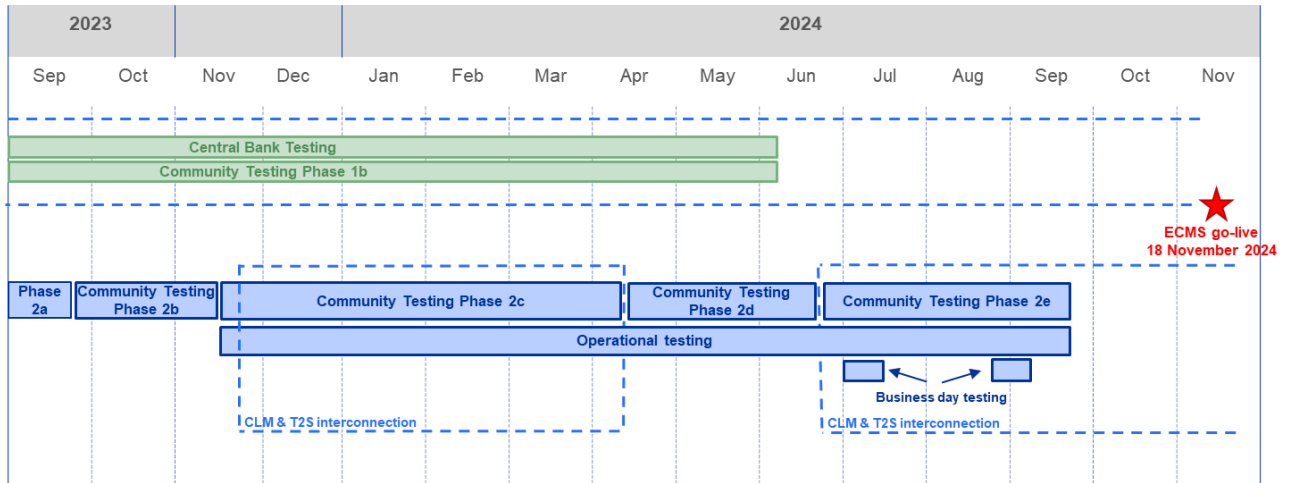
The test environment schedules will be agreed by the ECMS-UTMSG and will be elaborated with the ECMS ToR. During the period ECMS is interconnected with other TARGET Services applications, the ECMS test environments schedule will have to comply with the interconnected TARGET Services applications’ schedules.

4.3.4 UT Timeline and Duration

The UT plan is built on a sequential approach. In order to avoid parallelism between Community testing phase 1 and Community testing phase 2, the phases are split into sub-parts based on the ECMS actors involved. However, there are still following parallelisms as discussed and agreed by the ECMS-UTMSG:

- Parallelism between Connectivity test in Pre-Prod for all ECMS Actors and CBT phase in EAC
- Parallelism between CBT/Community testing Phase 1b and Community testing phase 2 for NCBs.
- Parallelism between Community testing phase 2 and Business Day/Operational testing phase in PreProd with some interruption due to the Operational testing having a disruptive nature.

The figure below presents the timeline for UT stage. Any further change in the UT plan below will not be updated in the Strategy document itself but in the ECMS info pack – user testing and migration published on the ECB website.



The duration of User Testing phases (Central Bank Testing, Community testing phases 1 and 2, Business Day and Operational testing) includes time needed to execute migration testing.

The ECMS Pre-Prod environment remains available for testing after the end of CTP2e for elements non critical for decision to go live ((for critical elements, please refer to exit criteria of CTP2e defined in the ECMS User Testing Terms of reference for Pre-Production environment).

- ECMS EAC NCB/CSD/TPA inter-operability testing
- ECMS PREPROD
- CLM & T2S interconnection

Figure 6 UT stage high level plan

The table below presents the duration of different UT Phases as per ECMS project plan:

Name of ECMS UT Phase	Start Date	End Date
NCBs – connectivity testing in EAC	17 Oct 2022	13 Jan 2023
Central Bank testing	16 Jan 2023	7 Jun 2024
CSDs and TPAs Connectivity testing in EAC	14 Nov 2022	13 Jan 2023
Community testing phase 1a	22 May 2023	07 Jul 2023
Community testing phase 1b	10 Jul 2023	7 Jun 2024
Community Connectivity testing in Pre-Prod: NCBs/CSDs/TPAs Counterparties	13 Mar 2023 17 Apr 2023	26 May 2023
Community testing phase 2a: NCBs/CSDs/TPAs Counterparties	29 May 2023 26 Jun 2023	20 Sep 2023
Community testing phase 2b	21 Sep 2023	17 Nov 2023
Community testing phase 2c: NCBs CSDs/Counterparties TPAs	20 Nov 2023 27 Nov 2023 29 Jan 2024	10 Apr 2024
Community testing phase 2d	11 Apr 2024	23 Jun 2024
Community testing phase 2e	24 Jun 2024*	22 Sep 2024
Business Day testing	4 weeks with live timing, excluding Fridays, during CTP2e, exact dates tbc	
Operational testing	20 Nov 2023	22 Sep 2024

* Due to the migration weekend dress rehearsal (MWDR) of Test 9, functional testing in CTP2e will re-start on 1 July 2024.

Table 2. UT Phases duration

4.3.4.1 Incident and Defect Management

NCBs testers will report their incidents to the ECMS Service desk. Incidents discovered by Users' testers must be reported to the relevant National Service Desk. In case the National Service Desk is not in a position to directly support their participants, it will log the incident with the ECMS Service Desk and receive an incident number. Incidents which require a software fix will be declared as a Problem and receive a problem number. The complete workflow and naming convention will be elaborated in the ECMS ToR.

4.3.4.2 Reporting

During the UT stage UT reports will be created to monitor the progress and status of testing. Following guidelines for reporting should be followed:

- Each NCBs will notify the ECMS service desk of their own incidents, problems and requests and those of entities belonging to their communities'. These will be recorded and managed by the ECMS service desk in a Trouble Management System (TMS), where the NCBs and ECB will have access in read-only mode to extract reports about the incident and problem status;
- The list of incidents and problems delivered in the context of a TARGET Service will cover incidents and problems identified for the Service or its dedicated components, as well as all incidents and problems identified within the common components. This list will be shared on a regular basis (frequency to be defined in ECMS ToR) with NCBs;
- During each User Test phase, the ECB shall consolidate the input received from NCBs and their communities, who shall report only to their respective NCB. The report shall highlight the status of testing in each NCB and in each community and their readiness to successfully complete the testing stage. The UT phases report will be shared with the decision making bodies (ECMS-WG, MIB);
- The ECB project team together with NCBs shall define the reporting and input templates in the UT Reporting Framework deliverable. The results of the migration tests will be recorded in a specific template as mentioned in chapter 4.3.4.2 Reporting;
- Reporting tools between NCBs and their communities shall be defined at national level.

4.3.5 Phases for User Testing

The following sub-sections will describe different UT phases which are relevant for the ECMS UT.

4.3.5.1 Connectivity Testing Phase

This phase includes the connectivity for NCBs, CSDs-TPAs and CPTYs. The objective is to ensure full end-to-end connectivity to the ECMS via the Eurosystem Single Market Infrastructure Gateway (ESMIG) i.e. to ensure that all communication between ECMS actors and the ECMS is working properly for A2A (correct inbound and outbound messages transmission) and U2A (access to the ECMS GUI). Certain mandatory reference data should be defined by the ECMS Operator (for NCB and CSD/TPA) and by NCB administrators for counterparties i.e. connectivity to the ECMS.

The U2A and A2A connectivity test shall apply to the ECMS connectivity validation of ECMS actors irrespective of the environment (EAC and Pre-Production). The way to check the connectivity will be the same for all ECMS actors (NCBs, CPTYS, CSDs and TPAs).

The connectivity test aims to check the ability of ECMS Actors to access the ECMS application by specifically checking that:

- U2A users can access an ECMS screen (details are provided in the ECMS User Testing Terms of Reference for Pre-Production environment)
- A2A users receive an acknowledgement from ECMS after sending one A2A message

ECMS Actors	U2A Connectivity Tests	A2A Connectivity Tests
NCB	<p>The ECMS Operator shall create the U2A NCB Admin user (with the associated DN).</p> <p>The U2A connectivity test will be considered successful once the user can view one ECMS screen (details are provided in the ECMS User Testing Terms of Reference for Pre-Production environment).</p>	<p>The NCB Administrator shall create the A2A user (with the associated DN).</p> <p>The NCB A2A user can send any message within the scope of their ECMS business activity</p> <p>The A2A connectivity test will be considered successful once the NCB receives an adm.007 message from the ECMS.</p>
CSD / TPA	Not Applicable.	<p>The ECMS Operator shall create the A2A users (with associated DNs).</p> <p>The CSD or TPA actor can send any message within the scope of their ECMS business activity.</p> <p>The A2A connectivity test will be considered successful once the CSD or TPA receives an adm.007 message from the ECMS.</p>
CPTY	<p>The NCB Administrator shall create the U2A CPTY Administrators with the associated DNs.</p> <p>The U2A connectivity test will be considered successful once the user can view one ECMS screen (details are provided in the ECMS User Testing Terms of Reference for Pre-Production environment).</p>	<p>The CPTY Administrator shall create the A2A user (with the associated DN).</p> <p>The CPTY A2A user can send any message within the scope of their ECMS business activity.</p> <p>The A2A connectivity test will be considered successful once the CPTY receives an adm.007 message from ECMS.</p>

Table 3. ECMS Connectivity test

For actors relying on an A2A connection, the processing of ISO20022 incoming / outgoing messages will be tested. The validation of A2A connectivity test will be done with the sending of any message within the scope of their ECMS business activity. The sender will receive an ECMS reply which validates the A2A connectivity test.

For U2A² – Access to the ECMS GUI is to be validated by NCBs and CPTYs.

Based on the ECMS Actors involved, connectivity testing phase is split into three sub-phases:

- NCBs connectivity testing in EAC (from 17 October 2022 to 13 January 2023);
- CSDs/TPAs connectivity testing in EAC (from 14 November 2022 to 13 January 2023);
- Connectivity testing in Pre-Prod (NCBs/CSDs/TPAs from 13 March 2023 to 26 May 2023, CPTYs from 17 April 2023 to 26 May 2023).

4.3.5.2 Central Bank Testing Phase

The objective of the Central Bank Testing (CBT) phase (from 16 January 2023 to 7 June 2024) is to establish the end-to-end interaction i.e. interoperability between the participants systems and the platform is correct, including the content of the messages. Along with this, NCBs will also test ECMS functionalities during the CBT phase. The CBT phase aims to test all ECMS functionalities.

The objective of the CBT phase is twofold:

- Make sure that the functionalities relevant only to NCBs are working according to the ECMS UDFS as well as check how their business needs are covered by the new system.
- Ensure the correct functioning of the Community testing phase (i.e. prepare the environment and test the most critical functionalities from community perspective). In particular, in case of NCBs acting on behalf of CPTYs, all relevant functionalities can be tested

CSDs will also be allowed (based on bilateral agreement with NCB) to start some testing activities in EAC in parallel with CBT.

² U2A is not applicable for CSDs / TPAs

4.3.5.3 Community Testing Phase

As part of the UT, the community testing phase allows all ECMS actors to test the functionalities of the ECMS they will use after the go-live of the system. The duration of the community testing phase shall give the respective actors enough time to achieve the main objectives of the phase, which are:

- to ensure the correct operation of all functionalities and processes of the ECMS,
- to ensure the correct interaction between all actors with respect to the specific community testing phase, and
- to ensure the correct interconnection between the ECMS and all systems connected to the ECMS (displayed in Figure 4 ECMS interactions with other systems/applications for EAC and UT phases), while acknowledging the activities of the connectivity testing phase to this regard,

in order to guarantee a successful entry into the next testing phase and subsequent go-live of the system.

Community testing activities are split into two different phases, which are mainly distinguished by the actors involved and testing environments used.

- Community testing phase 1

The community testing phase 1 allows NCBs, CSDs and TPAs to test their respective functionalities and processes in the EAC testing environment. This phase also allows NCBs to perform multilateral testing and aims to establish that the end-to-end interaction between the CSDs and TPAs systems and the ECMS is correct, including the content of the messages. It shall start after the CBT phase and when all entry criteria for this phase are met and shall end when all exit criteria are accordingly met. This should give the participants enough time to run the test cases, designated for this testing phase and all actions necessary for the successful execution of the testing phase. During the Community testing phase 1 all TARGET and ESCB Services applications displayed in Figure 4 ECMS interactions with other systems/applications for EAC and UT phases will be connected to the ECMS in the EAC environment and therefore are part of the respective testing activities. Community testing phase 1 is further split into:

- ✓ Community testing phase 1a (from 22 May 2023 to 7 July 2023) – during this period it is foreseen that NCBs provide complete support to their CSDs/TPAs. The scope of the testing is agreed bilaterally between NCBs and their CSDs/TPAs.
- ✓ Community testing phase 1b (from 10 July 2023 to 7 June 2024) –The scope of the testing and the extent of support from NCBs shall be bilaterally discussed and agreed between NCBs and their CSDs/TPAs.

- Community testing phase 2

In this phase all ECMS actors who interact with the ECMS after go-live, will test their respective functionalities and processes. This includes all CPTYs who will take part in the testing activities after the successful completion of their connectivity tests. A staggered approach per functionality will be followed for the testing by the Community. The ECMS functionalities are categorised into 12 different functionalities. The ECMS actors will be regularly informed via the ECMS User Testing Execution Testing Conditions document of the functionalities that are open for their testing. The testing in the Community testing phase 2 takes place in the Pre-Prod environment. The Connection to T2S and CLM will be available from 3 July 2023 until 20 September 2023, from 27 November 2023 until 10 April 2024 and from 24 June 2024 onwards. When the interconnection with CLM/T2S is not available, the respective testing activities will be done with the aid of required testing tools, such as the T2S/CLM simulator. In order to consider a test successfully performed, NCBs, CSDs/TPAs and counterparties should have performed the end-to-end test in the UT testing environment connected to CLM and T2S.

Community testing phase 2 is further split into:

- ✓ Community testing phase 2a (from 29 May 2023 to 20 September 2023) – during this period NCBs and their counterparties will participate in testing, with full interconnection with CLM and T2S. The CSDs/TPAs will provide support and participate in testing upon bi-lateral agreement with their NCB.
- ✓ Community testing phase 2b (from 21 September 2023 to 17 November 2023) – during this period NCBs and their counterparties will participate in testing, without interconnection with CLM and T2S. The CSDs/TPAs may also participate upon bi-lateral agreement with their NCB.
- ✓ Community testing phase 2c (from 20 November 2023 to 10 April 2024) – during this period all ECMS actors will participate in testing, with full interconnection with CLM and T2S. The Community testing phase 2c for TPAs will start from 29 January 2024.³
- ✓ Community testing phase 2d (from 11 April 2024 to 23 June 2024)⁴ – during this period all ECMS actors will participate in testing, without interconnection with CLM and T2S.
- ✓ Community testing phase 2e (from 24 June 2024 to 22 September 2024) – during this period all ECMS actors will participate in testing, with full interconnection with CLM and T2S. Due to

³ Following the staggered testing approach in Community testing phase 2, TPAs will start testing upon opening of the TPA functionality.

⁴ A big part of CTP2d will be devoted to migration testing. For the details, please refer to the ECMS User Testing Terms of reference for Pre-Production environment.

the migration weekend dress rehearsal (MWDR) of Test 9, functional testing in CTP2e will re-start on 1 July 2024.

Entry and exit criteria for both the Community testing phase 1 and phase 2 are defined in chapter 4.3.6.

4.3.5.4 Operational Testing Phase

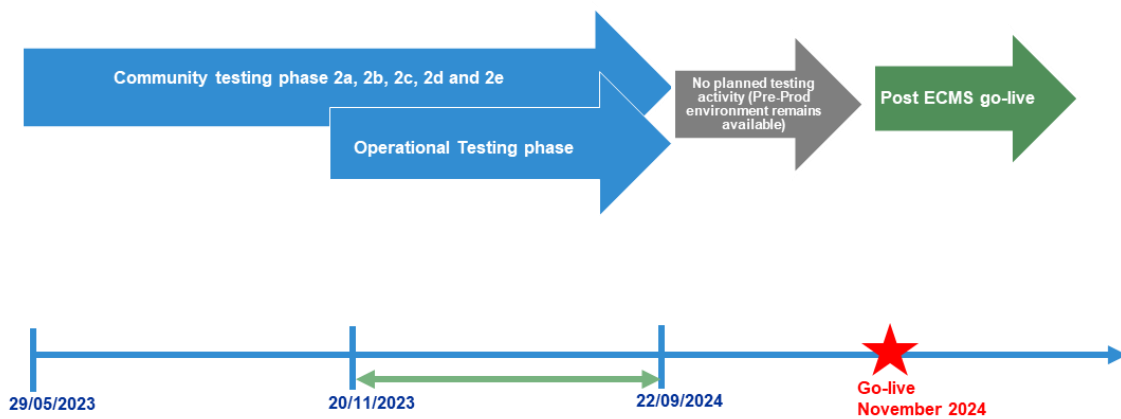


Figure 7 Operational Testing Phase

Operational testing (from 20 November 2023 to 22 September 2024) will include the validation of operational procedures and specific tests. The ECMS Operational manager shall define the test scenarios and assessment criteria for operational procedures, present it to the ECMS-UTMSG and ultimately to the ECMS-WG for endorsement prior to the start of testing. These test cases must be carried out by the ECMS Actors as part of Operational testing phase. Current assumption is that approximately 10 – 15 days (non-consecutive) will be required to execute operational test of disruptive nature. Apart from these, there might be other scenarios which can be executed in parallel to Community testing phase 2 during Operational testing phase.

Entry and exit criteria for the Operational testing phase is defined in chapter 4.3.6.

4.3.5.5 Business Day Testing Phase

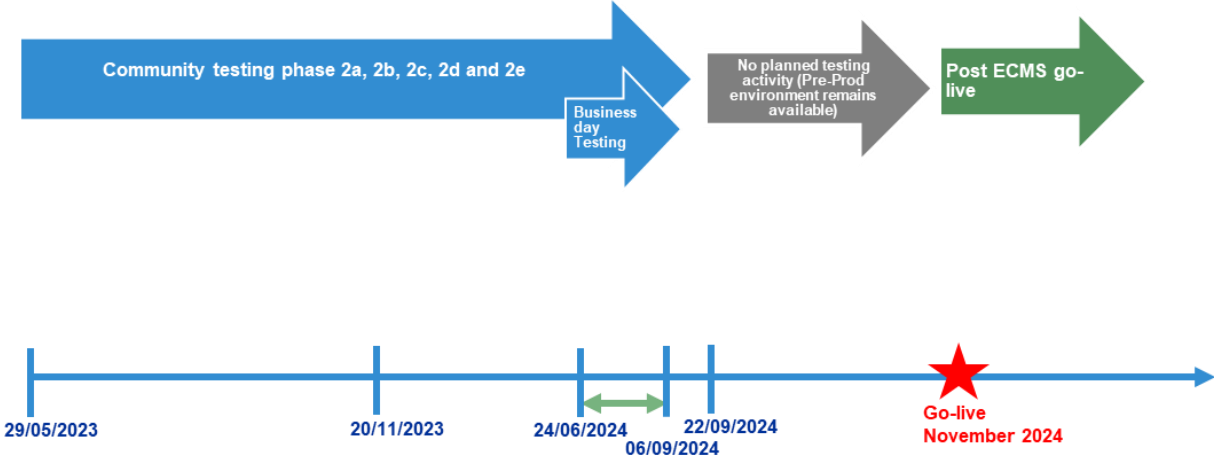


Figure 8 Business Day Testing Phase

Business Day testing, (4 weeks during Community testing phase 2e) (exact date tbc) will allow the ECMS actors to test the ECMS processes with a specific focus on Day-time and Night-time processes. It will also include the testing of the ECMS Service Desk tools.

The Business Day testing phase will run for a short and pre-agreed period with the Live Timing scheduler and concurrently with all of the other TARGET services. Business day testing will at no stage lead to a change of the standard support hours.

Entry and exit criteria for Business Day Testing phase are defined in chapter 4.3.6.

4.3.5.6 Contingency Testing Phase

These tests include the validation of any contingency measures according to their pre-defined scenarios as defined in the organisation of the migration. Depending on the scenarios defined, these measures will be tested during the pre-migration and migration tests or during a functional testing phase i.e. CBT, Community testing phase 1, Community testing phase 2.

4.3.5.7 Migration Testing Phase

The migration tests are intended to ensure that both the system settings and all necessary data can be migrated into the ECMS, including data from the local systems. The main objective of the migration testing is to ensure that the NCBs and active ECMS stakeholders are ready for Production. The tests will ensure that the integrity of the migrated data is maintained and that the data can be processed by

the system according to an agreed migration schedule. The objectives of the migration tests are to provide certainty that the involved actors can migrate to the ECMS in the foreseen timeframe of the pre-migration and migration weekend. It will also be ensured that all the migrating actors have successfully tested the migration steps including the correctness of the data migrated.

Migration testing consists of a number of activities to be performed in the days before the migration weekend (Pre-Migration phase, mostly migration of static data, certain interconnections between ECMS and other systems and application/services) and other activities to be carried out during the preparation week and migration weekend (Transactional data, remaining interconnections).

4.3.5.7.1 Migration testing Coverage

The following elements describe the testing coverage and validation of migration testing activities:

- Executing the data loads as migration activities during the pre-migration phase, the preparation week and the migration weekend in order to ensure the compliance of the data and structure;
- NCBs validation of the balances migrated to the asset accounts and pools under their scope;
- Validating that the sequence of activities to be executed during the pre-migration phase and during the preparation week and migration weekend is adequate and ensuring that all actors understand them;
- Validating that the planned activities can be executed within the planned time especially on the migration weekend,

Migration testing aims at executing all steps included in the PMS and the MWP. This also include steps related to connection, Business rules configuration and transactional data migration.

4.3.5.7.2 Migration testing planning

Migration testing will consist of the Pre-Migration Rehearsal (PMR), Pre-Migration Dress Rehearsal (PMDR), Preparation Week Rehearsal (PWR), Preparation Week Dress Rehearsal (PWDR), Migration Weekend Rehearsal (MWR) and Migration Weekend Dress Rehearsal (MWDR). MWDR is a test that will be executed over a weekend. In total, 9 migration tests are foreseen for the ECMS project. In addition, some contingency tests will be planned, but only executed if required.

Migration of a subset of static data will be tested during the Connectivity testing phase, as this is a prerequisite to perform connectivity testing (e.g. setup of NCBs' User).

Details about migration tests, their scope and detailed calendar will be included in the ECMS ToR. During migration testing periods (PMR/PMDR, PWR/PWDR and MWR/MWDR), it will not be possible to perform any functional testing.

4.3.6 Entry and Exit Criteria for the UT stage

The entry criteria for each UT stage defines certain pre-requisites that must be fulfilled before the start of a given testing phase. The exit criteria for each UT phase defines the criteria based on which the outcome of a given test phase can be considered successful and allows ECMS actors to move to the next test phase. The entry and exit criteria will be validated for each UT phase. This document lists non-exhaustive main entry and exit criteria for each UT phase. The list of entry and exit criteria will be finalised in the ECMS ToR⁵. Before deciding to start a given UT phase, an assessment of the entry criteria laid out below will be carried out. Similarly a decision to exit a given UT phase will be based on the assessment of the exit criteria laid out below.

Connectivity test phase

Main entry criteria:

- Availability of the test environments (EAC and Pre-Prod) by 4CB;
- Successful selection of the NSP by NCBs, CSDs, TPAs and CPTYs;
- Successful subscription to the VA-NSP's Services for ECMS (U2A and/or A2A);
- Request for the VA-NSP digital certificates is complete;
- Completion of connectivity set-up with VA-NSP;
- Registration to the closed group of users (CGU) is complete.
- Certain mandatory reference data should be defined by ECMS Operator for connectivity to ECMS.

⁵ The entry and exit criteria could be further split for Community testing phase 1a and 1b, and Community testing phase 2a,2b, 2c, 2d and 2e. Such detail will be described in ECMS ToR for EAC and the ECMS ToR for PreProd.

Main exit criteria:

- Successful reception of admi.007 message from the ECMS for A2A channel and access to the ECMS GUI for U2A channel for each relevant actor.

Community testing phase 1

Main entry criteria:

- Connectivity test in EAC has been successfully concluded by all CSDs and TPAs;
- Successful completion of CBT phase;
- The MIB decides based on an ECMS-WG recommendation to start Community test – phase 1a.

Main exit criteria:

- The functional and migration test case sets have been successfully executed by all NCBs and their CSDs/TPAs;
- All discovered defects with high criticality related to the functionality have been resolved;
- A resolution timeline for all discovered defects with medium or low criticality related to the functionality has been approved by the MIB;
- All Central Banks confirm the readiness of themselves and their communities to exit Community testing phase 1.

Community testing phase 2

Main entry criteria:

- All relevant actors (ECB, NCBs and Service provider) jointly agree that the Community test - phase 2a could be started;
- Connectivity test in Pre-Prod has been successfully concluded by all ECMS Actors;
- The MIB decides based on an ECMS-WG recommendation to start the Community test – phase 2a.

Main exit criteria:

- The functional and migration test case sets have been successfully executed by all NCBs and their communities;
- All discovered defects with high criticality related to the functionality have been resolved;

- A resolution timeline for all discovered defects with medium or low criticality related to the functionality has been approved by the MIB;
- All NCBs confirm the readiness of themselves and their communities to exit Community test – phase 2;
- All relevant actors (ECB, NCBs and Service provider) agree that the Community test – phase 2 has been completed along with the criteria given above.

Operational testing

Main entry criteria:

- Sufficient progress on Community phase 2;
- Successful completion of test cases on functionalities related to Operational testing;
- Confirmation from all TARGET services of operational test readiness;
- The MIB decides based on an ECMS WG recommendation to start the Operational testing phase.

Main exit criteria:

- The operational test case sets have been successfully executed by all NCBs and their communities;
- All discovered defects with high criticality related to the functionality have been resolved;
- A resolution timeline for all discovered defects with medium or low criticality related to the functionality has been approved by the MIB;
- All NCBs confirm their own readiness and that of their communities to exit Operational testing phase.

Business Day testing

Main entry criteria:

- Sufficient progress on Community phase 2;
- The MIB decides based on an ECMS WG recommendation to start the Business Day testing phase.

Main exit criteria:

- The business day test case sets have been successfully executed by all NCBs and their communities;
- All discovered defects with high criticality related to the functionality have been resolved;
- A resolution timeline for all discovered defects with medium or low criticality related to the functionality has been approved by the MIB;
- All NCBs confirm their own readiness and that of their communities to exit Business Day testing phase.

The MIB decides based on an ECMS-WG recommendation to close the UT test Stage.

Specific entry and exit criteria for each UT phase will be further elaborated in the ECMS ToR

5. Communication Framework

The communication framework covers the availability and transfer of information needed during the testing and migration phase between the testing and migration stakeholders. It shall ensure that the stakeholders exchange all relevant information in a prompt and efficient manner. Clear description of the communication framework is of utmost importance as it is a crucial success factor in the testing and migration phases of the project.

5.1 Scope

5.1.1 In-scope

The communication framework covers the communication of information needed during migration execution (i.e. pre-migration stage, preparation week and migration weekend stage, post-migration stage) as well as during UT phase.

It describes

- The composition of target audience;
- The type of communicated information;
- The communication channels;
- The communication process;
- The timing of communication.

5.1.2 Out of scope

Communication to the supporting and informed stakeholders is not covered in this document.

Details on communication between ECB, NCBs and their communities for UT execution phase is defined in the ECMS ToR.

The communication between the NCB and their communities (i.e. CSDs/TPAs and CTPYs) is not covered in the document, as the channels and form should be defined at national level.

Communication after the ECMS go-live will follow the process described in the MOP.

5.2 Communication principles

The following chapter will define the communication principles on which the communication framework is based.

5.2.1 Follow defined lines of communication

To ensure a substantial testing phase and a smooth migration it is essential that the lines of communication during those phases are clear. The testing and migration documentation defines the lines of communication for the reporting of the progress in testing and migration and the escalation procedure. The communication details for UT (including migration testing) are defined in ECMS ToR. The communication details for migration will be included in the customised documentation on ECMS migration activities and schedule, for NCBs to share with their community.

5.2.2 Use of defined communication channels

Only the communication channels such as teleconferences which are defined in this document will be used, other channels (e.g. instant messages application) will not be used. Phone calls and e-mails can be used for bilateral communication.

5.2.3 Clear communication

All communication, especially in written form, shall be clear, concise and to the point, in order to make sure that all relevant actors can comprehend its content in the easiest and most unambiguous way possible. All relevant actors will be provided with the necessary information needed for the respective testing and migration activities in due time.

5.3 Communication towards the migration actors

5.3.1 Target audience

The target audience are the actors actively involved in migration defined in chapter 2.1.1.

5.3.2 Communication process

Information necessary to prepare for migration will be included in the customised documentation on ECMS migration activities and schedule, for NCBs to share with their community. In addition to this, ad hoc sessions could be organised with specific actors to support NCBs in their communication.

During the migration, communication between ECMS actors and the Eurosystem will be handled by the respective NCB. This includes communication from ECMS actors on the status of their migration activities. Similarly, the information about the status of migration to the ECMS will be communicated to each community by the respective NCB.

Next to this, communication of some key information relevant for all actors could be made available centrally by the Eurosystem, to ensure a timely and consistent communication to all ECMS actors.

5.3.3 Type of communicated information

During the migration, the up to date status of all important and relevant migration activities will be available at different points in time during the migration execution (for all phases). The following types of information are communicated:

- Start of the phase;
- Conclusion of the phase;

Reaching of key milestones and/or checkpoints.

In the pre-migration, preparation week and migration weekend stages, information will be also communicated in the following situations, upon approval by the ECMS Migration managers:

- Any delay foreseen in these migration activities, which has an impact on the ECMS actors.

5.3.4 Communication channel

In case some information needs to be made available centrally by the Eurosystem, the information agreed by the ECMS Migration managers could be communicated to the ECMS actors via a dedicated

page on the ECB website or via any other means identified by the UTMSG and the ECMS WG. As soon as the information is published, the migration stakeholders and the ECMS actors will have access to it. In general, NCBs can use the information published to inform their own community. They may also communicate additional information to their community provided it does not contradict the published communication.

5.4 Communication between Active UT Stakeholders

5.4.1 Target audience

The target audience are the actors actively involved in UT defined in chapter 2.1.1.

5.4.2 Communication process

Information necessary to prepare for UT is provided in the ToR and Fundamental Test Cases, and in other UT documents available to NCBs to share with their community such as the test calendar.

Throughout the UT execution period NCBs, CPTYs, CSDs and TPAs (via their respective NCBs) and the ECMS Operator will provide to the ECB:

- The status of UT activities;
- The detailed information needed to resolve efficiently an eventual incident;
- The detailed information needed to make quick and appropriate decisions in case of escalation;
- The status of support requests.

The ECMS Service Desk will provide the status and the resolution of all open incidents.

The ECB aggregates the above input and provides the following information to NCBs:

- An overall status of the UT execution;
- A UT status/transition report providing formal information about the status or results of the UT activities for a specific UT phase;
- Target Audience Information Access.

The target audience will have access to all information mentioned above via their respective NCBs unless the information is of bilateral nature only (as decided by the ECB) and is not impacting any other UT stakeholder.

Next to the above, ad hoc sessions could be organised with specific actors to support NCBs in their communication.

5.4.3 Type of communicated information

During UT the following information is provided and exchanged:

- Regular monitoring of entry and exit criteria for different UT phases;
- Specific UT service requests to 4CB (ECMS Service Desk) if any;
- UT incidents and the evolution of their status;
- UT status reports consolidating the input provided by NCBs for its own as well as its communities test progress;
- Documentation related to the UT phase;
- Any other information which is relevant to actors to successfully execute UT phases.

5.5 Responsibilities

5.5.1 The National Service Desks

The national service desks will be available to answer all queries from the members of their community as regards the ECMS migration/UT execution. The Migration manager of the NCB will participate in the migration managers conference calls and each NCB will update its tasks (and the tasks of their community) in the MIC upon completion. The Test manager of the NCB will participate in the regular test managers conference calls and each NCB will update its tasks (and the tasks of their community) which impact other NCBs testing.

6. List of Acronyms

ACRONYM	STANDS FOR
A2A	Application-to-Application
BPMN	Business Process Model and Notation
CAS	Credit Assessment Source
CB	Central Bank
CMS	Collateral Management System.
CP	Connected Payment
CPTY	Counterparty
CRDM	Common Reference Data Management
CSD	Central Securities Depository
CTP	Community Testing Phase
DCA	Dedicated Cash Account
DMD	Detailed Migration Document
DN	Distinguished Name
EAC	Interoperability test environment
EAT	Eurosystem Acceptance Testing
ECMS	Eurosystem Collateral Management System
ECMS-WG	Working Group on Eurosystem Collateral Management System
ECMS-UTMSG	ECMS User Testing and Migration Sub-Group
EoD	End of day
ESMIG	Eurosystem Single Market Infrastructure Gateway
EXDI	ESCB XML Data Integration
GUI	Graphical User Interface

ACRONYM	STANDS FOR
IAC	Internal Acceptance Environment
ICAS&CSDB	Internal Credit Assessment System and Centralised Securities Database
ISIN	International Securities Identification Number
ISD	Intended Settlement Date
MCP	Migration Check Point
MFI	Monetary Financial Institution
MIB	Market Infrastructure Board
MIC	Migration Information Centre
MID	Market Information Dissemination
MIPC	Market Infrastructure and Payments Committee
MLOR	Marginal Lending On Request
MOP	Manual of Operational Procedures
MPO	Monetary Policy Operations
MRO	Main Refinancing Operations
MWP	Migration Weekend Playbook
MW(D)R	Migration Weekend (Dress) Rehearsal
NCB	National Central Bank
NSP	Network Service Provider
PMCP	Pre-Migration Check Point
PM(D)R	Pre-Migration (Dress) Rehearsal
PMS	Pre-Migration Schedule
PW(D)R	Preparation Week Dress Rehearsal
SD	Settlement Date

ACRONYM	STANDS FOR
T2S	Target2-Securities
T2S DCA	T2S Dedicated Cash Account
T2S CSG	T2S CSD Steering Group
TMS	Trouble Management System
TOP	Tender Operations Platform
TPA	Triparty Agent
TSWG	TARGET Services Working Group
UT	User Testing
U2A	User-to-Application
XML	eXtensible Markup Language

7. Glossary

Item	Description
Application-to-Application	A technical mode of communication that permits the exchange of information between different software applications without a graphical user interface.
Business day	The business day in the ECMS starts at 18.45 (d-1) with the Start-of-day processing and ends at 18.45 (d) with the completion of the end-of-day processing.
Central Securities Depository	An entity that: 1) enables securities transactions to be processed and settled by book entry; 2) provides custodial services (e.g. the administration of corporate actions and redemptions); and 3) plays an active role in ensuring the integrity of securities issues. Securities can be held in a physical (but immobilised) form or in a dematerialised form (whereby they exist only as electronic records).

Item	Description
Common Reference Data Management	The Common Reference Data Management (CRDM) handles in a single point the data that is shared by different Eurosystem Common Components.
Counterparty	Institution with which a Eurosystem CB has a business/contractual relationship for purposes of monetary policy operations and intraday credit or other collateral management activities in the scope of the ECMS.
Distinguished Name	A name that uniquely identifies an entry in a directory or network. Usually it is a sequence of attribute-value assertions (e.g. "cn=smith") separated by commas, e.g. <cn=smith,ou=t2s-ops, o=bnkacctt,o=nsp-1>.
ECMS Actor	Any legal entity or organisation interacting with the ECMS for the purpose of collateral management. ECMS Actors are: Counterparties or authorised agent, Central Security Depositories (CSD), Triparty Agents (TPA), NCBs, non-euro Central Banks, Cash Correspondent
ECMS Operator	The Operator is the entity that operates the ECMS
Eurosystem Single Market Infrastructure Gateway	The ESMIG provides the single access point for the external communication to all market infrastructure services (ECMS, T2S, TIPS, etc.). The ESMIG ensures a network agnostic communication with the users, where network agnostic means multiple network providers are allowed.
Graphical User Interface	The interface that allows a user to interact with a software application through the use of graphical elements (e.g. windows, menus, buttons and icons) on a computer screen, using the keyboard and mouse.
National Central Bank	A Central Bank that provides collateral services to Participants.
NCB User	Human user who has interactive access to the ECMS online functions or an application that requests services from the ECMS. They interact with the ECMS, belong to one NCB and act on behalf of this NCB or its community.

Item	Description
Triparty Agent	The triparty service provider (referred to as “triparty agent” or “TPA”) responsible for the processing of instructions on behalf of both collateral giver and the collateral taker.
User-to-Application	A mode of technical communication that permits the exchange of information between software applications of the ECMS and a ECMS system user through a Web graphical user interface.
Value Added – Network Service Provider	The ECMS Actors can choose their preferred NSP, which fulfils the ECMS Connectivity Requirements and passes the relevant compliance checks. The NSP provides the ECMS Actors the means to access the ECMS, in addition to providing network connectivity, messaging services (U2A and A2A), security services, and operational services.