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EUROSYSTEM

ECB-UNRESTRICTED

DG-MIP/MIS

ECMS User Testing Terms of Reference for Pre-Production environment

ECMS-UTMSG

FINAL

V3.0

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1. Introduction

The ECMS User Testing Terms of Reference for Pre-Prod environment (Pre-Prod ToR) covers the information relevant for ECMS actors[1] participating in the user testing (UT) stage[2] in the ECMS Pre-Prod environment. The Pre-Prod ToR covers connectivity testing, migration testing, community testing phase 2 (CTP2), business day testing and operational testing.

CTP2 allows ECMS actors[3] to test ECMS functionalities and processes in the Pre-Prod environment. This phase also allows NCBs to perform multilateral testing and aims to test the end-to-end interaction, including the content of the messages, between the CSDs', TPAs' and CPTYs' systems, the ECMS, Central Liquidity Management (CLM), TARGET2-Securities (T2S), the Common Components and the ESCB Services' systems[4]. A connectivity testing phase will involve all ECMS actors before the starting of CTP2. Migration testing will ensure that the necessary system settings and data can be migrated into the ECMS, including data from the local NCB systems. The business day testing phase will allow ECMS actors to test the ECMS processes with a specific focus on daytime and night-time processes. The UT stage will also include the testing of the ECMS Service Desk tools. The operational testing phase will include the validation of operational procedures and specific tests.

This document addresses:

- The general principles regarding connectivity and the usage of the test environment, as well as the available operational day schedules;
- The organisation, roles and responsibilities of participating actors involved in CTP2, Migration testing, business day testing and operational testing activities;
- Detailed scope and timeline of CTP2, Migration tests, business day testing and operational testing;
- Incident and defect management;
- Deployment management;
- The usage of tools supporting the execution of testing in the Pre-Prod environment.

This document is only applicable until the ECMS go-live. It does not cover release testing after the ECMS go-live.

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1 National central banks (NCBs), central securities depositories (CSDs), triparty agents (TPAs) and NCB counterparties (CPTYs).

2 ECMS UT will take place both in ECMS EAC and the ECMS Pre-Prod environment. Community testing phases 1a and 1b (involving NCBs, CSDs and TPAs) and the Central Bank Testing phase will take place in ECMS EAC. Community testing phases 2a, 2b, 2c, 2d and 2e (involving all ECMS actors), business day testing and operational testing will take place in ECMS Pre-Prod.

3 CPTYs will only be involved in UT if they plan to directly connect to ECMS via U2A and/or A2A. CPTYs that plan to mobilise a pool via another ESMIG party and will therefore not connect to the ECMS platform will not directly/actively take part in UT unless that ESMIG party wishes to involve them.

4 The ESCB systems with which the ECMS interacts to receive and supply reference data.

2. ECMS-WG, UTMSG and organisation

2.1 Roles and responsibilities

The ECMS Working Group (ECMS-WG) has established a dedicated User Testing Migration Subgroup (UTMSG) which deals with, among other activities, user testing. According to its mandate, the UTMSG shall actively contribute to the execution of UT, including migration testing. In addition, the UTMSG shall prepare UT reports for transition from one phase to another, and for the exit of the UT stage.

In this respect:

- The ECB testing coordinator schedules and conducts the test manager[5] calls. The ECB testing coordinator also monitors the progress of testing activities, collects the reports completed by the NCBs, shares the status with the UTMSG and escalates to the ECMS-WG any issue detected by UTMSG members. Finally, the ECB testing coordinator reports to the ECMS-WG and, in alignment with the ECMS project manager, to the MIB on the status and progress of testing.
- The 4CB provides support to NCB test managers during the availability of the ECMS Pre-Prod environment. The 4CB is responsible for the management of the technical tools used to facilitate testing in Pre-Prod environment (e.g. simulators, snapshot, clean up, reload tools). The 4CB is also in charge of processing any Service Requests (such as requests for data clean up) received from NCBs, and of registering and following-up on incidents or defects identified.
- The NCBs test managers represent their NCB during the test manager calls. The test manager reports to the ECB testing coordinator on the progress of the testing activities of their NCB and their NCB community (i.e. counterparties, CSDs, TPAs) and raises any issue identified during testing phases. The test manager is responsible, inter alia, for UT and migration testing activities with their national community. The NCB shall also provide support to its community during testing phases.

2.2 Testing calendar

The testing calendar provides more detailed information on the testing activities to be conducted during each testing phases in the Pre-Prod environment. In addition to the UT plan, the testing calendar also provides information on the planned snapshot, clean up, availability and schedule of the Pre-Prod environment.

2.3 Reporting

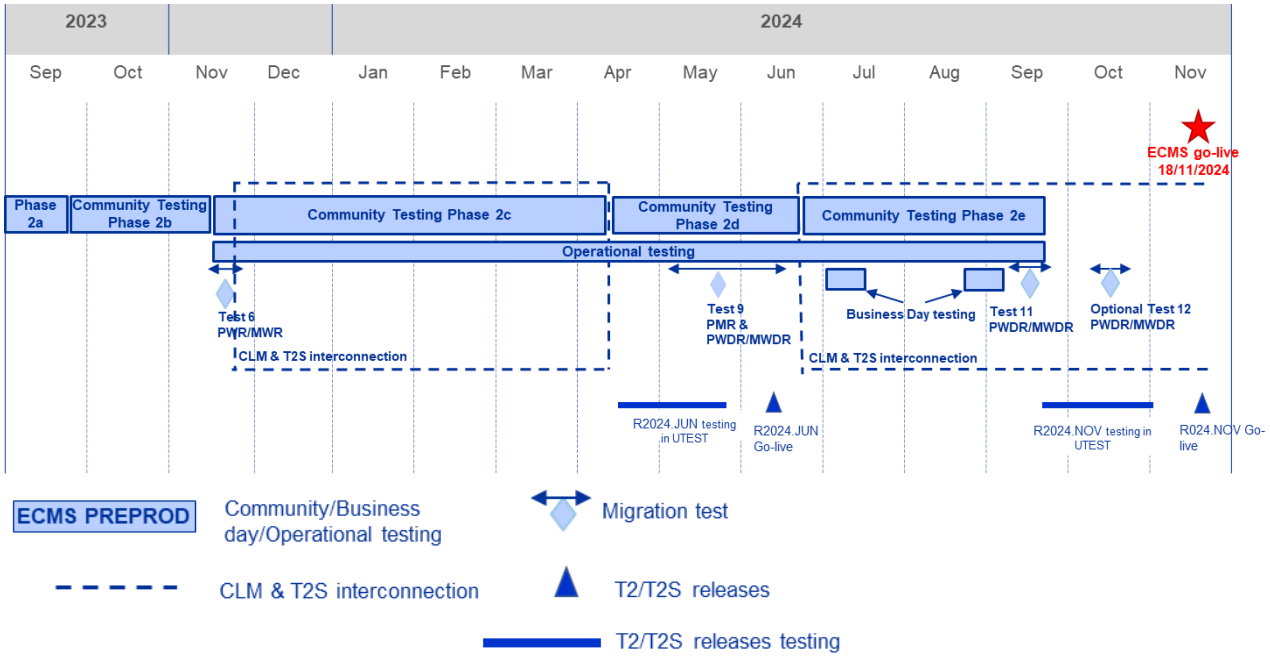
The progress of the testing activities conducted by ECMS actors will be subject to regular reporting by the NCBs. The aim of this is to monitor progress and ensure that testing activities are performed in

[5] The NCBs shall nominate a test manager, who will be responsible for the smooth running of testing and migration testing activities.

accordance with the timeline and to put in place the necessary action plans. The NCB testing managers are responsible for collecting the input from ECMS actors and providing consolidated input to the ECB testing coordinator.

3. Phases for user testing

The UT stage is the testing phase where ECMS actors can assess the functionalities provided in the ECMS. In the Pre-Prod environment, all ECMS actors will be involved in connectivity testing, community testing phases 2a, 2b, 2c, 2d and 2e, business day testing and operational testing.



PM(D)R Pre-migration (dress) rehearsal

PW(D)R Preparation week (dress) rehearsal. The week preceding the migration weekend start is the migration weekend preparation week. The main goal is to receive all data from external sources in order to initialise the ECMS database, or other reference data considered too volatile for the pre-migration (such as the credit claims reference data). (Dress) rehearsals during the preparation week will be part of the migration testing.

MW(D)R Migration weekend (dress) rehearsal

The duration of User Testing phases (Community testing phase 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 in section 7.6).

Figure 1. ECMS UT planning v2.2

This more detailed diagram below shows the interconnection with T2S and CLM, along with other testing activities.

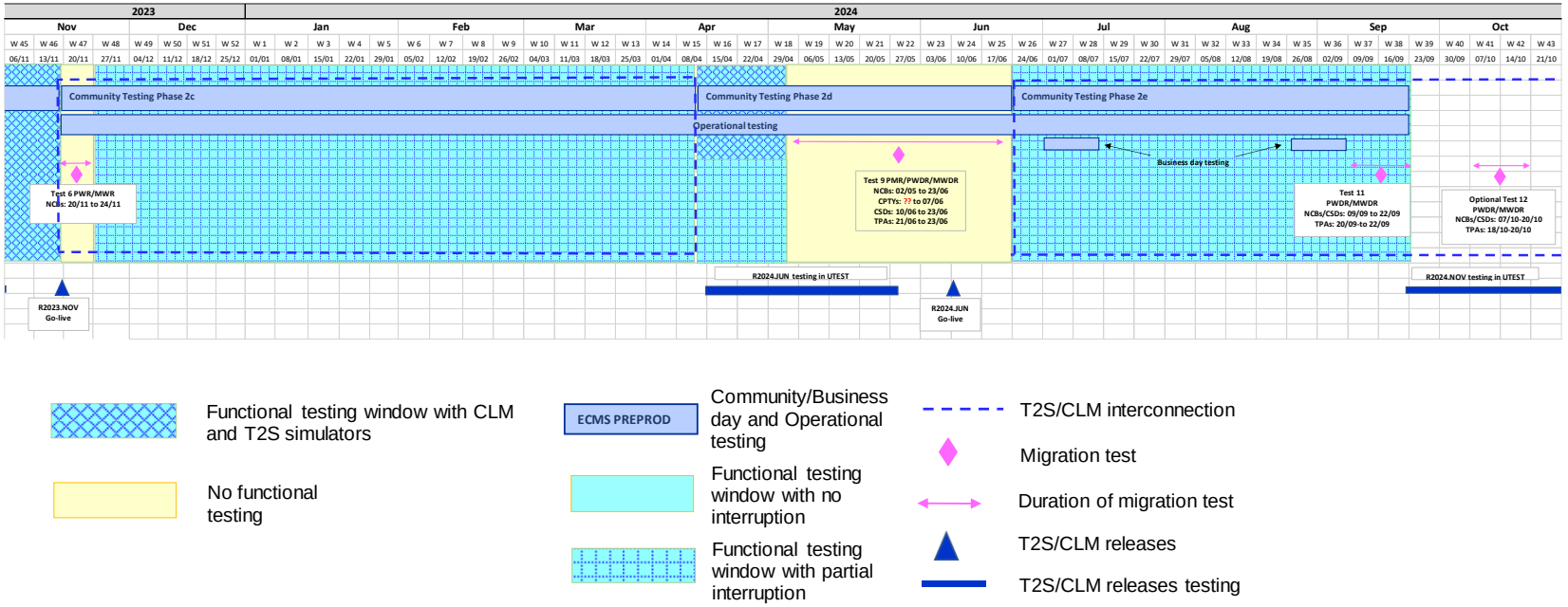


Figure 2. ECMS UT planning – detailed diagram

The following table provides an overview of the ECMS UT phases in Pre-Prod.

Name of ECMS UT Phase		Start Date	End Date
Community connectivity Testing in Pre-Prod:	NCB/CSD/TPA Counterparties	13 March 2023 17 April 2023	26 May 2023
Community Testing Phase 2a	NCB/CSD Counterparties	29 May 2023 26 June 2023	20 September 2023
Community Testing Phase 2b		21 September 2023	17 November 2023
Community Testing Phase 2c	NCB CSD/Counterparties TPA	20 November 2023 27 November 2023 29 January 2024	10 April 2024
Community Testing Phase 2d		11 April 2024	23 June 2024
Community Testing Phase 2e		24 June 2024	22 September 2024
Business day testing – two slots:	Slot 1 Slot 2	01 July 2024 25 August 2024	11 July 2024 05 September 2024
Operational testing		20 November 2023	22 September 2024

Table 1. Overview of ECMS UT Phases in Pre-Prod

3.1 Connectivity testing

3.1.1 Scope of the phase

This phase includes the connectivity testing for all ECMS actors in the Pre-Production environment. 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 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).

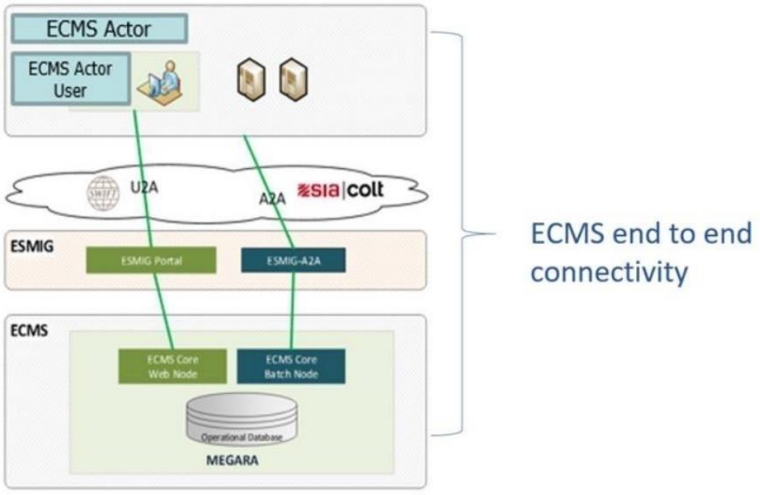


Figure 3. ECMS end to end connectivity

The U2A and A2A connectivity tests consist of the following:

- Only NCBs and CPTYs should perform a U2A connectivity test, as CSDs/TPAs will not be U2A Users. U2A connectivity test aims to check that U2A users can access the ECMS GUI landing page.
- ECMS actors intending to connect to ECMS via A2A should perform an A2A connectivity test. The A2A connectivity test aims to check that A2A users receive an acknowledgement message (admi.007) from the ECMS after sending one A2A message (the TARGET Services connectivity guide describes how to check that the admi.007 message is coming from the ECMS and not from ESMIG). The processing of ISO20022 incoming / outgoing messages will be tested. Each ECMS actor will be able to send any message within the scope of their ECMS business activity. ECMS actors who do not intend to send any ISO 20022 messages in Production but would still like to check their ability to receive files/reports via A2A can validate the connectivity by sending an "admi.005" message (report request). The A2A connectivity test will be considered a success once the ECMS actor receives an admi.007 message from the ECMS.

In order to perform connectivity testing some reference data (e.g. party, account) need to be set up.
As a pre-requisite to the set-up of these reference data, ECMS actors will need to fill in the registration form[6] provided by their NCB (tab "Data for Connectivity"[7]):

- For CSDs and TPAs, the NCBs should send the Registration Form collected from the CSDs and TPAs to the ECMS Service Desk two months before the start of connectivity testing.
- For CPTYs, the NCBs should collect the Registration Form from the CPTYs.

As per the published TARGET Services Connectivity Guide, reference data should be compliant with the Distinguished Name standard.

6 The registration forms template is designed from a production point of view. It will be the same for production and testing, the goal being to test the registration forms before their use for pre-migration in production. The content/data of the registration forms used for testing in Pre-Prod will be very close to the form used for production.

7 While only this tab "Data for Connectivity" will be used at this stage, the full registration form should still be submitted.

The steps for the set-up of reference data needed for connectivity testing and the steps for the connectivity testing itself will follow the sequence described below:

Activity	Actor	Reference data set up / connectivity testing
1. Creation of NCB/CSD/TPA party	ECMS Operator	Reference data set up
2a. Creation of NCB user(s) with the role 'NCB Admin' 2b. Creation of CSD/TPA A2A user with the corresponding role	ECMS Operator	Reference data set up
As from 2b. CSD/TPA A2A connectivity testing can be done	**CSD/TPA A2A user**	**Connectivity testing**
3. Connection to the ECMS GUI landing page (and the user can access menu corresponding to his role)	**NCB Admin**	**Connectivity testing**
4a. Creation of NCB A2A user with the corresponding role 4b. Creation of NCB User(s) with the role 'NCB – U2A General Reference Data Execution' (as from that moment the NCB user can access the menu corresponding to his role)	NCB Admin	Reference data set up
As from 4a. NCB A2A connectivity testing can be done	**NCB A2A user**	**Connectivity testing**
5. Creation of the CPTY party	NCB User	Reference data set up
6. Creation of the CPTY user(s) with the role 'CPTY Admin'	NCB Admin	Reference data set up
7. Connection to the ECMS GUI landing page (and the user can access menu corresponding to his role)	**CPTY Admin**	**Connectivity testing**
8. Creation of CPTY A2A user with the corresponding role	CPTY Admin	Reference data set up
As from 8. CPTY A2A connectivity testing can be done	**CPTY A2A user**	**Connectivity testing**

Table 2. Steps involved in connectivity testing

No other creation or modification of data apart for those described before should take place in the ECMS during the connectivity testing period.

3.1.2 Timeline

The connectivity testing phase in Pre-Prod environment will last from 13 March 2023 to 26 May 2023, i.e. for 2.5 months. NCBs should complete their connectivity testing and set-up of their CPTYs' admin users at the latest by 14 April 2023 so that CPTYs can start their connectivity testing as of 17 April 2023. Other ECMS actors are expected to complete connectivity testing by 12 May 2023 as the last 2 weeks is a buffer period and a snapshot of the Pre-Prod environment will be taken on 26 May 2023.

3.2 Community testing Phase 2 (CTP2)

3.2.1 Scope of the phase

The CTP2 allows all ECMS actors who will interact with the ECMS after go-live to test all ECMS functionalities and processes in the Pre-Production environment. This includes all CPTYs who have successfully completed their connectivity tests and can thus take part in testing activities.
The CTP2 includes the migration testing (refer to 5. Migration testing in Pre-Production).

The connection of the ECMS to T2S and CLM will be available from 3 July 2023 to 20 September 2023, from 27 November 2023 to 10 April 2024 and from 24 June 2024 onwards. From 21 September 2023 to 24 November 2023 and from 10 April 2024 to 21 June 2024 the ECMS will be disconnected from T2S and CLM; during this period, testing activities will be performed with the aid of testing tools, such as the CLM/T2S simulator.

The CTP2 is split into five phases:

- during Community testing phase 2a (CTP2a), NCBs and their CPTYs will participate in testing, with full interconnection with CLM and T2S. The CSDs/TPAs will provide support and participate in testing upon bilateral agreement with their NCBs. CTP2a will start after the snapshot of the Pre-Prod environment has been taken at the end of the connectivity testing phase on 26 May 2023, with the execution of Migration test no. 4 (refer to 5.1 Migration test no. 4).
- during Community testing phase 2b (CTP2b), NCBs and their CPTYs will participate in testing, without interconnection with CLM and T2S. The CSDs/TPAs may also participate in testing upon bilateral agreement with their NCBs.
- during Community testing Phase 2c (CTP2c), all ECMS actors will participate in testing, with full interconnection with CLM and T2S. CTP2c will start with the execution of the Migration Test no. 6 (refer to 5.2 Migration test no. 6).
- during Community testing phase 2d (CTP2d), all ECMS actors will participate in testing, without interconnection with CLM and T2S. Most of CTP2d (7 out of 10 weeks) will be devoted to the execution of Migration Test no. 9 (refer to 5.3 Migration test nr. 9); the remaining 3 weeks will be devoted to functional testing.
- during Community testing phase 2e (CTP2e), all ECMS actors will participate in testing, with full interconnection with CLM and T2S. CTP2e will end with the execution of Migration Test no. 11 (refer to 5.4 Migration test nr. 11).

A staggered approach per functionality will be followed for the testing by the community in CTP2. 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[8] of the functionalities that are open for their testing in CTP2 upon green light of their NCB.

Some testing will need to be coordinated in CTP2 (e.g. for the testing of billing or open market operations); in such case, timing of testing activities (and in some case data, e.g. tenders for open market operations) will be common to all ECMS actors.

3.2.2 Timeline

CTP2 will start after the successful completion of the connectivity phase.

[8] See section 11.

CTP2a will start on 29 May 2023 and end on 20 September 2023. For counterparties, the CTP2a will start on 26 June 2023 with the participation to the migration Test no. 4 (from 26 to 30 June 2023) and the functional testing will start after completion of Test no. 4, as of 10 July 2023.
CTP2b will start on 21 September 2023 and end on 17 November 2023.
CTP2c will start on 20 November 2023 and end on 10 April 2024. For CSD/CPTYs the CTP2c will start on 27 November 2023 after the migration test no. 6. For TPA the CTP2c will start on 29 January 2024.
CTP2d will start on 11 April 2024 and end on 23 June 2024.
CTP2e will start on 24 June 2024 and end on 22 September 2024.
The detailed migration testing and functional testing windows are indicated in Figure 2. ECMS UT planning – detailed diagram.

3.2.3 UT fundamental test cases

The ECMS UT fundamental test cases are a set of test cases to be executed by ECMS Actors. NCBs may define additional mandatory test cases which they require their community to execute in addition to UT fundamental test cases.
The NCBs will be asked to confirm to the ECB testing coordinator, for each UT fundamental test case, that NCBs and all actors of their community for whom the test case is relevant have successfully executed it.
All relevant UT fundamental test cases must be successfully executed by the ECMS Actors by 23 August 2024 at the latest.
Further details are provided in the deliverable “ECMS UT Fundamental Test Cases”.

3.3 Business day testing

3.3.1 Scope of the phase

Business day testing will allow ECMS Actors to test the ECMS processes with a specific focus on day time and night-time processes to ensure that their systems can adhere to the production schedule. It will take the form of end-to-end testing, with all systems and services needed for the proper working of the ECMS functionalities connected to the ECMS.
The business day testing phase will run for 4 weeks except on Fridays (refer to 3.3.2 **Error! Reference source not found.**) following the ECMS live timing schedule and concurrently with all of the other TARGET services. During this period the NCB national service desks will provide support to their community according to the ECMS live timing schedule.

3.3.2 Timeline

Business day testing will be executed from 01 to 11 July 2024 and from 26 August to 05 September 2024, except on Fridays. It will run in parallel with CTP2e which continues until 22 September 2024. The business day testing will run with the ECMS live timing schedule.

3.4 Operational testing

3.4.1 Scope of the phase

Operational testing will include specific tests related to the validation of operational procedures. The operational related test (ORT) scenarios and assessment criteria for operational procedures will be defined by the Eurosystem in cooperation with the NCB operational managers and will be presented to the 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. The days (non-consecutive) which will be required to execute operational tests of a disruptive nature (fully fledged ORTs) will be specified in the testing calendar shared with NCBs. Apart from these, there may be other scenarios which can be executed in parallel with CTP2 during the operational testing phase (limited scope ORTs).

3.4.2 Timeline

Operational testing starts on 20 November 2023 and ends on 22 September 2024. It will run in parallel with CTP2 which continues until 22 September 2024.

4. Test environments

In the ECMS Pre-Prod environment, UT will be executed by CSDs, TPAs and CPTYs with NCBs. The testing phases will be preceded by a connectivity testing phase for all ECMS actors.

4.1 Connectivity to Pre-Prod

The ECMS Pre-Prod environment will be accessible via A2A and U2A for NCBs and CPTYs and via A2A for CSDs and TPAs. The connectivity is provided by the certified NSP selected by the ECMS actor. The connectivity principles are defined in the TARGET Services Connectivity Guide.

4.2 System Integration

In order to carry out the functionalities supported by the ECMS, the ECMS needs to be interconnected with other systems. The figure below provides an overview of the ECMS and the interaction with the various TARGET services' applications and common components, ECB and ESCB services' applications, ECMS actors and NCBs' local applications.

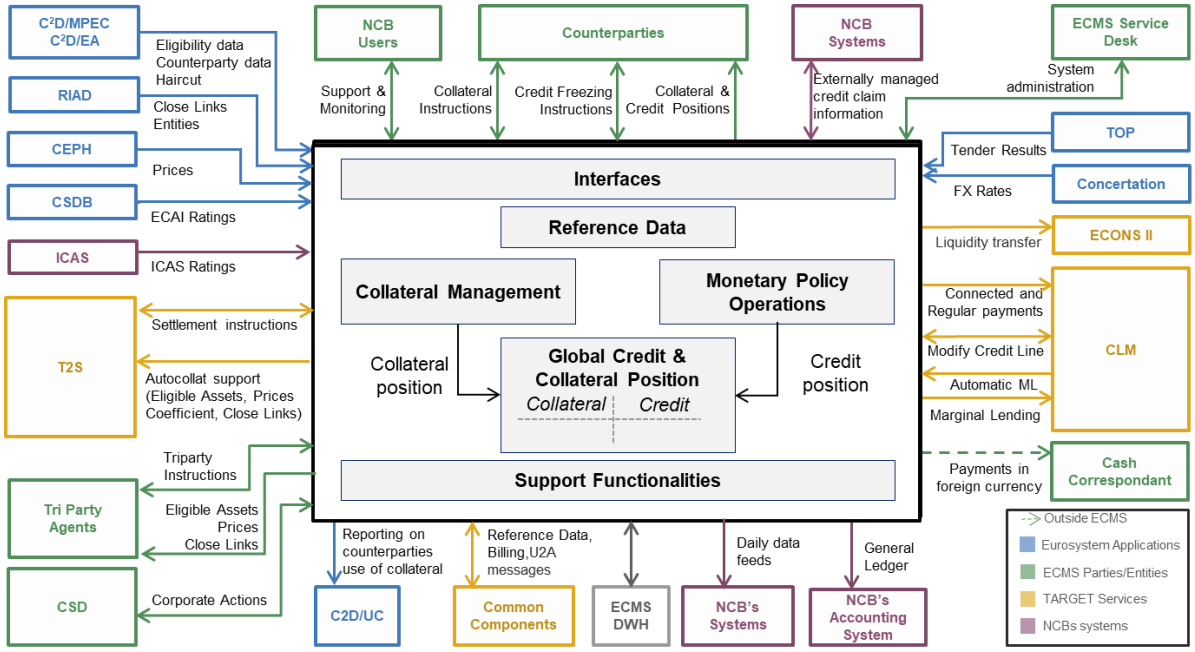


Figure 4. ECMS interactions with other systems/applications

Therefore, during UT, the Pre-Prod environment will be connected to the testing environments of these systems. To this end, the UTMSG has defined an ECMS test environment topology. The table below lists the date for interconnection of systems/applications with the ECMS Pre-Prod environment:

Service	ECMS UT in Pre-Prod
T2S	Three slots: 1. 3 July 2023 to 20 September 2023 2. 27 November 2023 to 10 April 2024 3. 24 June 2024 onwards
CLM	Three slots: 1. 3 July 2023 to 20 September 2023 2. 27 November 2023 to 10 April 2024 3. 24 June 2024 onwards

Table 3. Interconnection with TARGET Services

Until deployment of R2024.JUN release in production, in order to allow bug fix for defects identified in CLM during ECMS UT, the 4CB will discontinue T2 PROD maintenance support on a temporary basis, in agreement with T2 governance, and provide maintenance support for ECMS. After deployment of R2024.JUN release in Production there is no need to have a specific bug-fix windows as any bugs identified can immediately be fixed without a need to switch versions of CLM.

The figure below provides a high-level functional scope showing the interaction between the various TARGET services' applications and common components, ECB and ESCB services' applications, ECMS actors and NCBs' local applications during UT in Pre-Prod. CPTYs will be involved in those phases. As the interconnection with T2S and CLM will not be available for a sub-period of the CTP2, CTP2 has been split into five sub-phases[9].

- Community testing phase 2a (CTP2a): The red line indicates the high-level functional scope of CTP2a . During this phase T2S and CLM will be connected with the ECMS, together with all other systems and services' applications needed for the proper working of the ECMS functionalities.
- Community testing phase 2b (CTP2b): The yellow line indicates the high-level functional scope of the CTP2b. During this phase T2S and CLM will be disconnected from ECMS and T2S and CLM testing simulators will be used[10]. Other systems and services' applications needed for the proper working of the ECMS functionalities will remain connected.
- Community testing phase 2c (CTP2c): The red line indicates the high-level functional scope of CTP2c (and part of operational testing running in parallel). During this phase T2S and CLM will be re-connected with the ECMS, and all other systems and services' applications needed for the proper working of the ECMS functionalities will remain connected.
- Community testing phase 2d (CTP2d): The yellow line indicates the high-level functional scope of the CTP2d (and part of operational testing running in parallel). During this phase T2S and

[9] Further details can be found in Section 3.2

[10] Further details can be found in Section 12.2.

CLM will be disconnected from ECMS and T2S and CLM testing simulators will be used[11]. Other systems and services' applications needed for the proper working of the ECMS functionalities will remain connected.

- Community testing phase 2e (CTP2e): The red line indicates the high-level functional scope of CTP2e (and business day testing and part of operational testing running in parallel). During this phase T2S and CLM will be re-connected with the ECMS, and all other systems and services' applications needed for the proper working of the ECMS functionalities will remain connected.

[11] Further details can be found in Section 12.2.

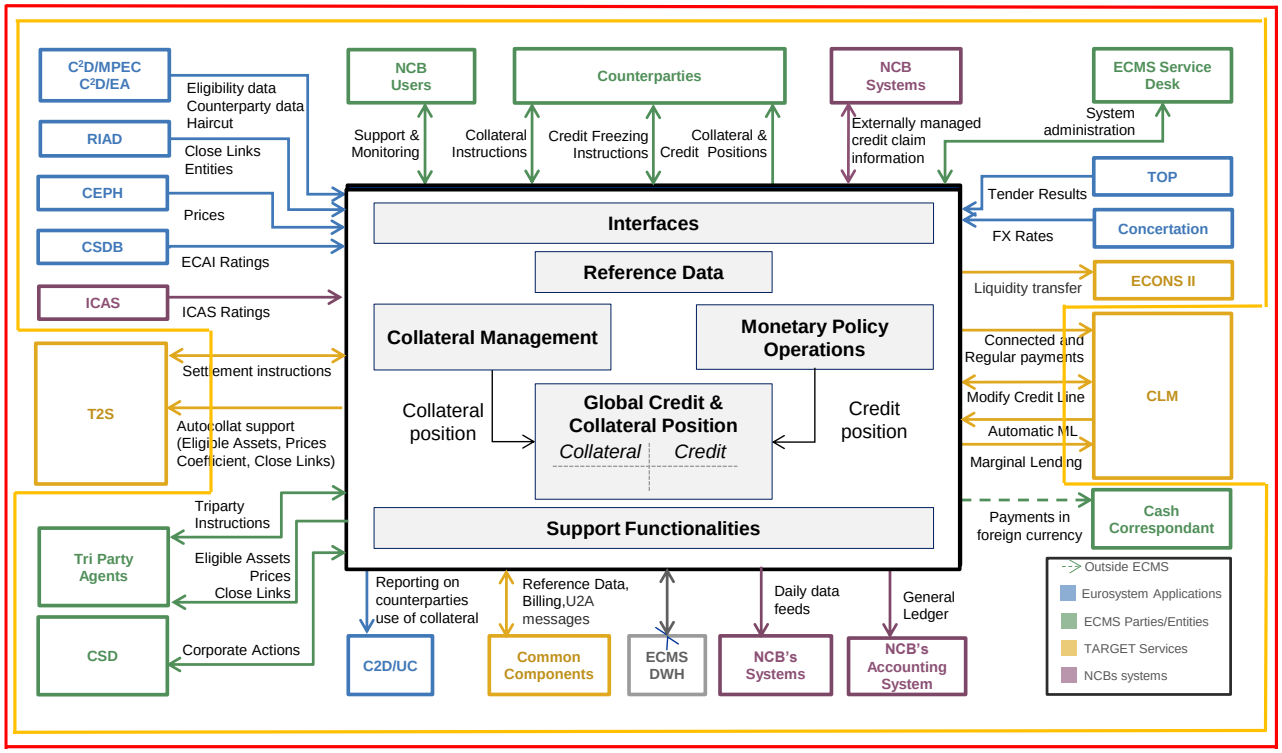


Figure 5. ECMS interactions with other systems/applications for UT in Pre-Prod

4.3 Pre-Prod opening and support hours

The standard opening and support hours of the Pre-Prod environment by the ECMS service desk are Monday to Friday, from 09:00 to 17:30 CET. Outside of this period, it might be possible to access the screens but the accessibility and the testability of the software on the Pre-Prod environment are not guaranteed. Pre-Prod environment will be closed on 1 January (New Year's Day), Good Friday, Easter Monday, 1 May (Labour Day), 24 December, 25 December (Christmas Day) and 26 December. Operations are subject to specific cut offs depending on the operational day schedule applied (refer to section 4.5 and section 15). During business day testing[12] and on the Mondays following the Migration Weekend Dress Rehearsals[13], live timing with a production-like schedule and production-like support will be followed.

4.4 Pre-Prod reference data set-up and maintenance

Pre-defined Registration Forms will be made available to ECMS actors 3 months in advance of the start of connectivity testing in Pre-Prod. For the set-up of the reference data of CSDs and TPAs, the NCBs shall submit the completed Registration Forms (data needed for connectivity testing and other data) to

[12] Refer to section 3.3.2.

[13] Refer to sections 5.3, 5.4 and 5.5.

the ECMS Service Desk two months before the start of connectivity testing. NCBs will liaise with their CSDs and TPAs to complete the registration form and launch the procedure for the set up of the relevant reference data in the test environment.

For the set-up of the reference data of CPTYs, NCBs will liaise with CPTYs to complete the registration form and will then set up those reference data in the test environment.

Connectivity testing will be followed by CTP2. CTP2 will start with a pre-migration test. The data for the connectivity testing (tab “Data for connectivity” of the registration forms) will be set up at the start of connectivity testing (see Section 3.1). The setup of the other data (tab “Other data” of the registration forms) is part of the pre-migration test.

4.5 Pre-Prod operational day schedules

As the expectation is that the schedules on TARGET Service connected environments will be synchronised as of the connection date (e.g. connection between T2 UTEST and T2S UTEST environments, connection between ECMS Pre-Prod environment and T2 UTEST and T2S UTEST environments), four different Pre-Prod operational day schedules will be proposed in Pre-Prod, for the different situations described below:

Operational day schedule	Description
ECMS Live Timing	PROD-like scheduler
Cleansing ECMS operational day	Operational day schedule to be applied when a request to clean-up the database is to be executed by the ECMS Operator. End of day activities shall be rearranged and performed several hours earlier.
Standard day	
T2-T2S-ECMS synchronized standard day	Standard operational day schedule applied when T2S and T2 services are connected to ECMS in Pre-Prod environment .
ECMS standard day	Standard operational day schedule applied when ECMS is not synchronised with T2 and T2S.
Release day	
T2-T2S-ECMS synchronized release day	Operational day schedule for the use of the new software release deployment in Pre-Prod for the ECMS, to be applied each Friday during UT in the Pre-Prod environment when T2S and T2 services are connected to the ECMS. The ECMS end of day activities shall be rearranged and performed several hours earlier in accordance to T2 and T2S synchronized release days.
ECMS release day	Operational day schedule for the use of the new software release deployment in Pre-Prod for the ECMS to be applied each Friday during UT in the Pre-Prod environment during the phases when the ECMS is not synchronized with T2 and T2S. The ECMS end of day activities shall be rearranged and performed several hours earlier.

Table 4. Operational day schedules

The detailed schedule of each of the above operational day schedules is provided in the Annex[14].

The agreed planning of the operational day schedules will be part of the testing calendar.

5. Migration testing in Pre-Production

This section provides details on the five migration tests which are planned to be executed in the Pre-Prod environment[15]. In the Pre-prod environment, migration testing will consist of pre-migration dress-rehearsals (PMDRs), preparation week rehearsals (PWRs), preparation week dress rehearsals (PWDRs), migration weekend rehearsals (MWRs) and migration weekend dress rehearsals (MWDRs).

Activities related to migration tests will be included in the testing calendar. During the execution of these migration tests, it will not be possible to perform any functional test.

For MW(D)Rs, a pre-requisite is that ECMS is interconnected with T2S and CLM.

The following table provides an overview of the migration tests in Pre-Prod with information on the schedule and ECMS actors involved.

Test number	Type of test	Start Date	End Date
Test 4	PMDR & PWR/MWR:		
	PMDR - NCBs/CSDs	29 May 2023	30 June 2023
	PMDR - counterparties	26 June 2023	30 June 2023
	PWR/MWR - NCBs/CSDs/TPAs	03 July 2023	07 July 2023
Test 6	PWR & MWR - NCBs	20 November 2023	24 November 2023
Test 9	PMR & PWDR/MWDR		
	PMR - NCBs/Counterparties	02 May 2024	07 June 2024
	PWDR - NCBs, CSDs*	10 June 2024	21 June 2024
	MWDR - NCBs, CSDs, TPAs	21 June 2024	23 June 2024
Test 11	PWDR & MWDR		
	PWDR – NCBs/CSDs*	9 September 2024	20 September 2024
	MWDR – NCBs/CSDs/TPAs	20 September 2024	22 September 2024
Test 12	PWDR & MWDR		
	PWDR – NCBs/CSDs*	7 October 2024	18 October 2024
	MWDR – NCBs/CSDs/TPAs	18 October 2024	20 October 2024

* Scope and timing of CSD involvement in the PWDR are under analysis due to the simultaneous go live with deployment of Standards Release 2024.

Table 5. Overview of migration tests in Pre-Prod

[14] Refer to Section 15

[15] In the previous plan for testing in Pre-Production environment, next to test no. 4 and test no. 6 there were 3 more migration tests (test no. 5 which was cancelled, test no. 7 and optional test no. 8) which in the current plan are replaced by tests no. 9, no. 11 and no. 12 respectively.

5.1 Migration test no. 4

Migration test no.4 will consist of a PMDR followed by a PWR/MWR. The objective of Migration test no. 4 is to rehearse the pre-migration activities, preparation week and migration weekend activities. In this test pre-migration activities will follow the sequence planned in production and the timing as close as possible to production. The preparation week and migration weekend activities will follow the sequence planned in production but timing of the activities will be customised to the test environment conditions. In this test the CSDs will perform the set up in T2S for ECMS in coordination with their respective NCB.

Migration test no. 4 - PMDR:

- Start date – 29 May 2023 for NCBs/CSDs, 26 June 2023 for CPTYs
- End date – 30 June 2023
- Pre-requisite – NCBs/CSDs/TPAs/CPTYs have successfully connected to Pre-Prod by 26 May 2023. NCBs have received all registration forms. A snapshot of the complete Pre-Prod environment will take place upon completion of connectivity testing on 26 May 2023. The correct ECMS software must be available to execute the PMDR. CSDs/CPTYs are ready to participate in PMDR in Pre-Prod.
- Execution – The NCBs will involve the CSDs and CPTYs[16] based on the activities required for the pre-migration dress rehearsal.
- Post-rehearsal activities – Once the pre-migration is complete the results of the test will be evaluated. A snapshot of the Pre-Prod environment will be taken on 30 June 2023. The NCBs will start the execution of the PWR/MWR upon completion of the PMDR and the snapshot.

Migration test no. 4 – PWR/MWR

- Start date – 3 July 2023 for NCBs
- End date – 7 July 2023
- Pre-requisite – The PMDR, including all reference data set up in T2S, and the snapshot of the Pre-Prod environment must be completed to start the PWR/MWR.
- Execution – The CSDs/TPAs will not be involved in the PWR/MWR.
- Post-rehearsal activities – Once the migration is complete the results of the test will be evaluated. The NCBs, CSDs, TPAs and CPTYs will start the execution of the CTP2a phase upon completion of the preparation week and migration weekend test.

5.2 Migration test no. 6

Migration test no. 6 will consist of a PWR followed by an MWR. The objective of Migration test no. 6 is to ensure good testing conditions for the marketable assets mobilization/demobilization processes during the CTP2c phase after the reconnection of the ECMS Pre-Production environment to T2S and

[16] CPTY users set up by the CPTY Admin user and check of the CPTY registration form data in the system.

CLM. In this test only some of the preparation week and migration weekend activities will be executed; they will follow the sequence planned in production but timing of the activities will be customised to the test environment conditions.

Migration test no. 6 – PWR/MWR

- Start date – 20 November 2023 for NCBs
- End date – 24 November 2023
- Pre-requisite – A clean up of the transactional data has been performed.
- Execution – The CSDs/TPAs will not be involved in this test
- Post-rehearsal activities – Once the test is complete the results of the test will be evaluated. The ECMS actors will start the execution of the CTP2c functional testing upon completion of the test and green-light provided by the NCB.

5.3 Migration test no. 9

Migration test no. 9 will consist of a PMR[17] followed by a PWDR/MWDR. The objective of the Migration test no. 9 is to rehearse the pre-migration activities, preparation week and migration weekend activities, as well as to establish good testing conditions for the CTP2e following the reconnection of the ECMS Pre-Production environment to the T2S and CLM. In this test pre-migration activities will follow the sequence planned in production but timing of the activities will be customised to the test environment conditions. The preparation week and migration weekend activities will follow the sequence and timing planned in production.

Migration test no. 9 - PMR:

- Start date – 02 May 2024 for NCBs[18], for CPTYs the start date will be defined once the dedicated test schedule is produced[19]
- End date – 07 June 2024
- Pre-requisite – A clean up of the Pre-Prod environment and the reload of the snapshot of connectivity data taken on 26 May 2023 have been done. CPTYs are ready to participate in the PMR in Pre-Prod.
- Execution – The NCBs will involve the CPTYs[20] based on the activities required for the pre-migration rehearsal.

[17] At the start of the PMR part of Migration Test no.9 the NCBs will execute a volume test in ECMS for the marketable asset positions; neither CSDs nor CTPYs will be involved.

[18] The CSDs will not be involved in the PMR since the set up of T2S for ECMS has been executed in Migration test no. 4 and does not need to be repeated.

[19] It is however not yet confirmed if CTPYs will partake in the test or not, as NCBs may execute the CTPY user creation on behalf of the CTPYs. Nevertheless, if confirmed, the CTPYs participation would be scheduled no earlier than 27 May 2024.

[20] CPTY users set up by the CPTY Admin user and check of the CPTY registration form data in the system.

- Post-rehearsal activities – Once the pre-migration is complete the results of the test will be evaluated. A snapshot of the Pre-Prod environment will be taken on 07 June 2024. The NCBs/CSDs will start the execution of the PWDR upon completion of the PMR and the snapshot.

Migration test no. 9 – PWDR

- Start date – 10 June 2024 for NCBs/CSDs[21]
- End date – 21 June 2024
- Pre-requisite – The PMR and the snapshot of the Pre-Prod environment must be completed to start the PWDR. CSDs are ready to participate in PWDR.
- Execution – The NCBs will involve the CSDs based on the activities required for the preparation week dress rehearsal.
- Post-rehearsal activities – Once the migration is complete the results of the test will be evaluated. The NCBs, CSDs, TPAs will start the execution of the MWDR phase upon completion of the PWDR.

Migration test no. 9 – MWDR[22]

- Start date – 21 June 2024 for NCBs/CSDs/TPAs, 23 June for CPTYs[23]
- End date – 23 June 2024
- Pre-requisite – The PWDR must be completed to start the MWDR. CSDs/TPAs are ready to participate in the MWDR in Pre-Prod.
- Execution – The NCBs will involve the CSDs/TPAs and CPTYs based on the activities required for the migration weekend rehearsal.
- Post-rehearsal activities – On 24 June 2024 a live timing schedule will be followed. Once the migration is complete the results of the test will be evaluated. The NCBs, CSDs, TPAs and CPTYs will start the execution of the CTP2e phase upon completion of the MWDR and green light provided by the NCB.

5.4 Migration test no. 11

Migration test no. 11 will consist of a PWDR and a MWDR. The objective of Migration test no. 11 is to rehearse the preparation week activities and migration weekend activities. In this test the preparation week activities and migration weekend activities will follow the sequence and timing planned in production.

[21] Scope and timing of CSD involvement in the PWDR are under analysis due to the simultaneous go live with deployment of Standards Release 2024.

[22] This test will not be executed together with R2024.NOV release. This will be done with Test no. 11.

[23] This will be defined by the NCB at national level.

Migration test no. 11 – PWDR:

- Start date – 09 September 2024 for NCBs/CSDs[24]
- End date – 20 September 2024
- Pre-requisite – A clean up of the Pre-Prod environment and the reload of the snapshot taken on 07 June 2024 have been performed on 09 September 2024. CSDs are ready to participate in PWDR in Pre-Prod.
- Execution – The NCBs will involve the CSDs based on the activities required for the preparation week dress rehearsal.
- Post-rehearsal activities – Once the preparation week is complete the results of the test will be evaluated.

Migration test no. 11 – MWDR:

- Start date – 20 September 2024[25] for NCBs/CSDs/TPAs, 22 September 2024 for CPTYs[26]
- End date – 22 September 2024
- Pre-requisite – The PWDR must be completed to start the MWDR. CSDs/TPAs are ready to participate in MWDR in Pre-Prod.
- Execution – The NCBs will involve the CSDs, TPAs and CPTYs based on the activities required for the migration weekend dress rehearsal.
- Post-rehearsal activities – On 23 September 2024 a live timing schedule will be followed. Once the migration is complete the results of the test will be evaluated.

5.5 Migration test no. 12 - Optional

A PWDR/MWDR could be executed as a part of Migration test no. 12 if the PWDR or the MWDR of Migration test no. 11 is unsuccessful. The objective of Migration test no. 12 is to rehearse the preparation week activities and migration weekend activities. In this test the preparation week activities and migration weekend activities will follow the sequence and timing planned in production.

Migration test no. 12 – PWDR (optional):

- Start date – 07 October 2024 for NCBs/CSDs[27]
- End date –18 October 2024

[24] Scope and timing of CSD involvement in the PWDR are under analysis due to the simultaneous go live with deployment of Standards Release 2024.

[25] The migration weekend starts upon the point of no return, i.e. at the end of the day on the Friday of the migration weekend.

[26] This will be defined by the NCB at national level.

[27] Scope and timing of CSD involvement in the PWDR are under analysis due to the simultaneous go live with deployment of Standards Release 2024.

- Pre-requisite – A clean up of the Pre-Prod environment and the reload of the snapshot taken on 07 June 2024 have been performed on 07 October 2024. CSDs are ready to participate in PWDR in Pre-Prod.
- Execution – The NCBs will involve the CSDs based on the activities required for the preparation week dress rehearsal.
- Post-rehearsal activities – Once the preparation week is complete the results of the test will be evaluated. The NCBs, CSDs and TPAs will start the execution of the MWDR upon completion of the PWDR.

Migration test no. 12 – MWDR (optional):

- Start date – 18 October 2024[28] for NCBs/CSDs/TPAs, 20 October 2024 for CPTYs[29]
- End date – 20 October 2024
- Pre-requisite – The PWDR must be completed to start the MWDR. CSDs/TPAs are ready to participate in MWDR in Pre-Prod.
- Execution – The NCBs will involve the CSDs, TPAs and CPTYs based on the activities required for the migration weekend dress rehearsal.
- Post-rehearsal activities – On 21 October 2024 a live timing schedule will be followed. Once the migration is complete the results of the test will be evaluated.

6. Retest of bug-fix releases

During the ECMS UT phases bug-fix release will be deployed to fix any defects identified during UT. Such bug-fix releases will follow the deployment path as described in Chapter 8 . The raiser of the defect will be responsible for retesting the bug fix. This retesting can take place either in EAC or in the Pre-Prod environment. Both the content and deployment plan of a release will be discussed in the test managers call. The test manager may also discuss and request a sequential deployment approach i.e. on different dates in EAC and the Pre-Prod environment to avoid any impact on the community. Such a sequential deployment approach will allow NCBs to retest the bug fix in EAC before deployment in the Pre-Prod environment. The EAC environment continues to remain active even after the end of CBT and CTP1b.

[28] The migration weekend starts upon the point of no return, i.e. at the end of the day on the Friday of the migration weekend.

[29] This will be defined by the NCB at national level.

7. Entry and Exit criteria

The entry criteria for Community testing Phases 2a, 2b, 2c, 2d and 2e (respectively CTP2a, CTP2b, CTP2c, CTP2d and CTP2e), business day testing and operational testing phases define certain pre-requisites that must be fulfilled before the start of each given testing phase. The exit criteria for the above mentioned UT phases define the criteria based on which the outcome of a given test phase can be considered successful and allowing ECMS actors to move to the next testing phase. The entry and exit criteria will be validated for each phase. For decision to start a given phase an assessment of entry criteria laid out below will be carried out. Similarly, the exit of a given phase will be based on the assessment of the exit criteria laid out below.

7.1 Connectivity testing

Entry Criteria

Connectivity testing in Pre-Prod environment will be performed by all ECMS actors[30]. Connectivity testing also has to be performed in Pre-Prod for those who have already done it in the EAC environment.

- Completed the e-ordering process with the chosen Network Service Provider (NSP);
- Successful subscription to the NSP's Services for ECMS (U2A and/or A2A); this means that the involved ECMS actor has completed the subscription to all necessary NSP services (i.e. category of ongoing/incoming messages, number of user certificates needed with the proper access rights and in general all NSP facilities needed for interaction with the platform) that allow full interaction with ECMS and its functionalities;
- Request for the NSP digital certificates is complete;
- Completion of connectivity set-up with NSP;
- Registration to the Closed Group of Users (CGU) is complete;
- All ECMS actors are configured in ESMIG;
- The NCB has sent their Registration Form to the ECMS Service Desk and the ECMS Operator has completed the set up of the static data needed in ECMS for NCB connectivity testing;
- Involved CSD/TPAs have sent the registration form to their NCB, the NCB has forwarded the form to the ECMS Service Desk and the ECMS Operator has completed the set up of the static data needed in ECMS for CSD/TPA connectivity testing;
- Involved CPTYs have sent their registration form to their NCB and the NCB has completed the set up of the static data needed in ECMS for CPTY connectivity testing.
- Availability of the Pre-Prod environment;
- The MIB has given the green light for connectivity testing to start in Pre-Prod.

[30] As stated in Chapter 1 the CPTYs involved will be all those that have U2A and/or A2A access to the ECMS.

Exit Criteria

- All NCBs, CSDs/TPAs and CPTYs have completed the connectivity test. An ECMS actor who successfully finishes earlier, will not be able to start CTP2a and following phases any earlier;

7.2 Community testing Phase 2a (CTP2a)

Entry Criteria

- Connectivity established - A connectivity test has been successfully concluded by all ECMS actors;
- All NCBs/CSDs/TPAs have completed the test cases NCBs defined as mandatory to be performed in EAC until start of CTP2a[31];
- All ECMS actors (NCBs, CPTYs, and those CSDs/TPAs participating in CTP2a) confirm that they are ready to assume their role as expected in production;
- NCBs, CPTYs (and those CSDs/TPAs participating in CTP2a) have configured the users involved in CTP2a with the relevant roles and authorisation in ESMIG, ECMS, T2S and CLM;
- The quality of the system is sufficient to progress to CTP2a, i.e. all discovered defects (including those discovered during the testing phases in the EAC environment) with high severity or high impact on UT have been resolved or a suitable workaround has been identified;
- Readiness of the Eurosystem systems (T2S, CLM, ESCB Services, Common Components etc.) to interact with ECMS and completion of the relevant tests;
- The MIB has given the green light to start the CTP2a testing phase.

Exit Criteria

- ECMS has been disconnected from T2S and CLM.

7.3 Community testing Phase 2b (CTP2b)

Entry Criteria

- ECMS is connected to the T2S and CLM simulators.

Exit Criteria

- Migration test no. 6 is ready to start and it is confirmed that ECMS will be re-connected to T2S and CLM by 27 November 2023.

[31] Mandatory test cases which NCB require their community to execute, i.e UT fundamental test cases and other test cases in addition to UT fundamental test cases (refer to section 3.2.3).

7.4 Community testing Phase 2c (CTP2c)

Entry Criteria

- Migration test no. 6 is ready to start and it is confirmed that ECMS will be re-connected to T2S and CLM by 27 November 2023[32].

Exit Criteria

- ECMS has been disconnected from T2S and CLM.

7.5 Community testing Phase 2d (CTP2d)

Entry Criteria

- ECMS is connected to the T2S and CLM simulators.

Exit Criteria

- ECMS has been disconnected from T2S and CLM simulators and execution of Test no. 9 MWDR is completed.

7.6 Community testing Phase 2e (CTP2e)

Entry Criteria

- ECMS is re-connected to T2S and CLM and execution of Test no. 9 MWDR is completed.

Exit Criteria

- All ECMS actors have completed the test cases NCBs defined as mandatory to be performed during CTP2[33];
- All ECMS actors have completed the fundamental test cases relevant for them by 23 August 2024;
- All discovered defects with high severity have been resolved or a suitable workaround has been identified;
- A resolution timeline for all discovered defects with medium or low severity has been agreed by the UTMSG;
- The MIB decides to close the CTP2e testing phase and at the same time to close the whole ECMS UT[34];

[32] Start of functional testing is conditional to the end of migration test no. 6 and the greenlight provided by the NCB to their Community.

[33] Mandatory test cases which NCB require their community to execute, i.e UT fundamental test cases and other test cases in addition to UT fundamental test cases (refer to section 3.2.3).

[34] Pre-Prod environment remains available.

7.7 Business day testing

Business day testing will run in parallel with CTP2e.

Entry Criteria

- The quality of the system is sufficient to progress to business day testing i.e. all discovered defects with high severity or high impact on UT have been resolved or a suitable workaround has been identified;
- Interconnection with CLM, T2S, ESCB Services and Common Components remains established;

Exit Criteria

- All CPTYs, CSDs and TPAs have completed the test cases NCBs defined as mandatory to be performed during the business day testing phase[35];
- All discovered defects with high severity have been resolved or a suitable workaround is identified;
- A resolution timeline for all discovered defects with medium or low severity has been agreed by the UTMSG;
- All NCBs confirm their readiness and that of their community of CPTYs and CSDs/TPAs to exit the business day testing phase;
- The MIB decides to close the business day testing;

7.8 Operational testing

Operational testing will run in parallel with CTP2c, CTP2d and CTP2e.

Entry Criteria

- Successful completion of the tests of functionalities needed for operational testing.
- The ECMS Service Desk and NCB National Service Desks are ready to provide standard support according to the requirement of operational test cases foreseen;
- The quality of the system is sufficient to progress to operational testing, i.e. all discovered defects with high severity or high impact on UT have been resolved or a suitable workaround has been identified;
- Interconnection with CLM, T2S, ESCB Services and Common Components remains established in CTP2c and CTP2e;

[35] Mandatory test cases which NCB require their community to execute, i.e UT fundamental test cases and other test cases in addition to UT fundamental test cases (refer to section 3.2.3).

Exit Criteria

- All CPTYs, CSDs and TPAs have completed the test cases NCBs defined as mandatory to be performed during the operational testing phase[36];
- All discovered defects with high severity have been resolved or a suitable workaround is identified;
- A resolution timeline for all discovered defects with medium or low severity has been agreed by the UTMSG;
- All NCBs confirm their readiness and that of their community of CPTYs and CSDs/TPAs to exit the operational testing phase;
- The MIB decides to close the operational testing phase

8. Deployment management

Deployment management organises the rollout of software releases and/or configurable parameter changes to the ECMS software.

Deployment cycles for the implementation of bug fix/change request releases are independent from the software deployment for the different ECMS UT phases.

A bi-weekly bug fix/change request release will be planned in order to allow progress during the different ECMS UT phases. If no bugs have been identified or need to be fixed and no change request is ready to be deployed, then a bug fix/change request release will not take place.

8.1 Standard deployment

During CTP2, Pre-Prod will fall under the regular T2-T2S-ECMS synchronized release day or ECMS release day (applied on Fridays). The deployment activity that happens on a regular day with a release day schedule in Pre-Prod is the standard deployment method/plan. This standard deployment will be used for the deployment of bug fixes/change requests/software packages, etc. which are planned and scheduled in advance. The deployment of such fixes/change requests/software packages shall happen after the testing activities are completed for the day, which will be several hours earlier on those days. The content and schedule of each new software version is determined by 4CB in compliance with the testing calendar agreed with the NCBs for the delivery. This standard deployment path entails that the bug-fix/change request release is deployed at the same time in both EAC and the Pre-Prod environment.

[36] Mandatory test cases which NCB require their community to execute, i.e UT fundamental test cases and other test cases in addition to UT fundamental test cases (refer to section 3.2.3).

8.2 Non-standard deployment

In urgent cases (for instance in case of blocking issues requiring a hotfix), an exceptional deployment can be requested, assessed, and, if deemed feasible on 4CB side, performed in agreement with the 4CB and NCBs outside the regular period.

In such case, the 4CB delivers the deployment outside the regular T2-T2S-ECMS synchronized release day or ECMS release day with the agreement of the Test Managers and the UTMSG if the deployment impacts their testing activities. This non-standard deployment path entails that the bug-fix release is deployed at the same time in both EAC and Pre-Prod environment.

9. Support in Pre-Production

9.1 National Service Desk

The National Service Desk will be the single point of contact for CSDs, TPAs and CPTYs for any questions related to UT organisation in terms of testing, reporting of incidents, problems and all other processes being part of UT. In case of any connectivity issues for CSDs, TPAs or CPTYs and when the Network Service Provider (NSP) informs the National Service Desk, then this shall be communicated to the ECMS Service Desk by the National Service Desk.

Furthermore, the National Service Desk is the main[37] point of contact for the distribution of any information related to ECMS UT to the CSDs, TPAs and CPTYs (e.g. test calendar, etc.). Each NCB will provide more detailed information on support provided to CSDs, TPAs and CPTYs during testing.

10. Incident and Defect Management

During UT, each NCB can report incidents to the ECMS Service Desk.

If an incident is detected by a CSD, a TPA or a CPTY, they should raise the issue with the National Service Desk[38]. As a second step, if necessary, the National Service Desk will raise it with the ECMS Service Desk.

Defects are defined as events showing a discrepancy between the expected outcome of a test case according to the pertinent scope defining documents and the actual results. The 4CB will be in charge of declaring an incident as a defect based on the evidence provided and their expert judgement.

The ECMS Service Desk collects, logs and analyses defects and proposes workarounds.

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[37] The ECB could organize ad hoc sessions with specific actors to support NCBs with their communication.

[38] In the event that an incident is related to the set up performed in T2S by the CSD, the CSD should contact the T2S service desk directly. In case there is unclarity about the set up to be performed, the National Service Desk should be contacted.

The ECMS Service Desk provides to the NCBs the report of possible defects reported by all NCBs and their communities as well as those known defects detected by the Eurosystem.

The NCBs shall communicate the progress of incident/defect resolution to CSDs, TPAs and CPTYs through the respective National Service Desk.

11. Communication

Information necessary to prepare for UT is provided in this Pre-Prod ToR and in the fundamental test cases, and in other UT documents which are available to NCBs for sharing with their community, such as the test calendar, summary documents, migration test schedules. UT includes several participating actors. It is therefore necessary that activities are executed in a co-ordinated way when required and that all actors share the same understanding of the testing objective, organisation, etc. NCB test managers will coordinate with their communities, i.e CSDs, TPAs and CPTYs.

During UT execution, the NCB will distribute any information required for their ECMS UT to their CSDs, TPAs and CPTYs. A ECMS user testing execution testing conditions document will be published on a fortnightly basis on the ECB website to provide an overview of the ECMS functionalities that are open for testing by the Community and a description of the software limitations that are impacting ECMS user testing for the opened functionalities.

Throughout the UT execution period all ECMS actors (via their respective NCBs) and the ECMS Operator will provide to the ECB:

- The status of UT activities;
- The detailed information needed to resolve an incident efficiently;
- 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 specific UT phase;
- Target Audience Information Access.

CSDs/TPAs/CPTYs 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 does not affect any other UT stakeholder.

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

12. Tools Facilitating testing in Pre-Production

12.1 Pre-validation of messages

ECMS actors can verify/test the compliance of message versions in the Readiness Portal with specifications provided in MyStandards. The portal is a web application built on top of MyStandards. Tests with the MyStandards Readiness Portal neither require nor verify the connectivity via ESMIG. MyStandards Readiness Portal neither allows to reach nor test the ECMS.

The Readiness Portal provides direct links to relevant documentation in MyStandards. Portal users need a web browser and internet access and must be registered with SWIFT. The email addresses of the portal users are stored by SWIFT and the ECMS Service Desk. Users have to be authorised to test messages using the MyStandards Readiness Portal. Progress and results of the tests can only be monitored by the individual user.

The validation of messages through the portal ensures that ECMS actors will be ready to send valid messages to the ECMS immediately after CTP2 has started.

12.2 Testing simulators

T2S and CLM simulators can be used in case a connection between the ECMS and T2S and/or CLM is not available.

It will simulate answers from T2S and CLM following an ECMS outgoing message.

12.3 Clean up tool

The clean up tool will be used for migration testing. The objective of the clean-up tool is to allow the ECMS Operator to delete specific information from the ECMS database. The tool can be used at any time providing that the usage complies with the restrictions imposed by dependencies. The tool will be made available directly to the ECMS Operator and indirectly to the NCB users and the ECB, who shall send a request to the ECMS Operator in order to delete data objects.

The request has to be sent at least 1 week before the requested cleansing date. In case the data affects all NCBs, the agreement of multiple/all NCBs could be required. The ECB will coordinate to get confirmation from all NCBs and thereafter the ECB will send the official request form to the ECMS Operator. Upon approval of the request, the scripts are executed. The ECMS Operator informs the relevant NCB/s that the data has been correctly deleted.

12.4 Snapshot & Reload tool

The objective of the tool is to take snapshots of the database in a given test environment with the aim of reloading the captured data at a later point in time into the same environment. The snapshot and reload tool can be used either during UT phases or during migration testing but is mainly intended for use in migration testing. A request is sent to the ECMS Operator by the ECB at least 2 weeks in advance of the snapshot/reload date after the agreement of all NCBs, specifying whether it is a snapshot or a reload, the execution date and the environment involved. The ECMS Operator will inform the NCBs of the unavailability of the testing environment due to the execution of the snapshot or reload processes and communicate by when the environment shall be available again.

13. List of Acronyms

ACRONYM	STANDS FOR
A2A	Application-to-Application
BPMN	Business Process Model and Notation
CAS	Credit Assessment Source
CLM	Cash Liquidity Management
CMS	Collateral Management System.
CP	Connected Payment
CPTY	Counterparty
CRDM	Common Reference Data Management
CSD	Central Securities Depository
DCA	Dedicated Cash Account
DMD	Detailed Migration Document
DN	Distinguished Name
EAC	External Acceptance environment (Interoperability test environment)
EAT	Eurosystem Acceptance Testing
ECMS	Eurosystem Collateral Management System
ECMS-UTMSG	ECMS User Testing Migration Sub-Group
ECMS-WG	Working Group on Eurosystem Collateral Management System
EoD	End of day
ESMIG	Eurosystem Single Market Infrastructure Gateway
EXDI	ESCB XML Data Integration
GUI	Graphical User Interface
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
MLOR	Marginal Lending On Request
MOP	Manual of Operational Procedures
MPO	Monetary Policy Operations
MRO	Main Refinancing Operations
MWDR	Migration Weekend Dress Rehearsal
MWP	Migration Weekend Playbook

ACRONYM	STANDS FOR
MWR	Migration Weekend Rehearsal
NCB	National Central Bank
NSP	Network Service Provider
PMCP	Pre-Migration Check Point
PMDR	Pre-migration Dress Rehearsal
PMR	Pre-Migration Rehearsal
PMS	Pre-Migration Schedule
PWDR	Preparation Week Dress Rehearsal
PWR	Preparation Week Rehearsal
SD	Settlement Date
T2S	Target2-Securities
T2S DCA	T2S Dedicated Cash Account
ToR	Terms of Reference
TOP	Tender Operations Platform
TPA	Triparty Agent
UT	User Testing
UTMSG	User Testing Migration Sub-Group
U2A	User-to-Application
XML	eXtensible Markup Language

14. 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: CPTYs 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.
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

Item	Description
	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.

15. Annex

The table below provides the details of the ECMS operational day schedules[39].

ECMS Process/event	ECMS Standard day schedule (Cut Off Time/start of process in CET - hh:mm)	ECMS Release Day schedule (Cut off/start of the process in CET – hh:mm)
Pre-Production environment		
Credit Claims Mobilisation and Demobilisation	15:15	13:45
Credit Claims Mobilisation and Demobilisation U2A	15:15	13:45
Fixed Term Deposits and OMO	15:15	13:45
Cash Collateral	15:15	13:45
Credit Freezing	15:15	13:45
Externally Managed Collateral	15:15	13:45
Max Credit Line	15:15	13:45
Mobilisation and Demobilisation	15:15	13:45
NCB Rating Flow	17:30	17:30
Triparty reports and request of demobilisation	15:15	13:45
MLOR For Counterparty	15:45	15:15
MLOR For NCB	16:10	14:40
CLM	16:15	14:45
Change of business day:	**16:15**	**16:15**

[39] Might be subject to minor changes in the course of UT.