

# **TARGET2-Securities**

## **Public Training Framework**

### **V1-0**

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## 1. Introduction

### 1.1. Objective and scope of the T2S Public Training Framework

Training is an essential part of the T2S programme, since the future end-users of the T2S service need to be well-prepared to use the T2S functions in a self-contained and faultless manner. In order to ensure maximum efficiency and user-friendliness in all aspects of user training, the present T2S Public Training Framework defines the target audience of the T2S user training, detailing its objectives and scope, the relevant materials and programme. It also provides information on locations and the timeline.

### 1.2. Content of document

The present document is organised into four chapters:

- Chapter 1: Introduction – presenting the T2S Public Training Framework document;
- Chapter 2: Training objectives and scope – describing the training purpose and range and defining the addressees;
- Chapter 3: Training implementation – defining further deliverables, such as the training sessions and materials;
- Chapter 4: Training organisation – defining the location and indicative timing of the training sessions.

### 1.3. Dependence on other documents

The User Requirements Document (URD) defines the main and minimum requirements with respect to the T2S training materials and sessions and the timing of their delivery. Furthermore, it specifies the basic principles relating to the priority ranking of the training parties and the form in which the training should take place, e.g. both web-based and coach-based.

The T2S Public Training Framework considers the following T2S Deliverables providing input for the training sessions:

- Specifications: General Specification (GS), General Functional Specifications (GFS), User Detailed Functional Specifications (UDFS), General Technical Design (GTD);
- Specification-related documentation: Service Description (SD), User Handbook (UHB), Graphical User Interface (GUI) Business Functionalities;
- Legal documentation: Framework Agreement (FA), Currency Participation Agreement (CPA) and their relevant schedules, T2S-related parts of the T2 Guideline;

- Operational descriptions: Business Process Description (BPD), Manual of Procedures (MoP);
- Testing descriptions: User Testing Guide, Registration Guide for User Testing, User Testing Calendar, User Testing Strategy, CSD Certification Test Cases, CB Certification Test Cases, DCP Certification Test Cases, DCA Holders Certification Test Cases;
- Migration descriptions: Migration Strategy, Standard Migration Plan, Migration Profiles & Registration Guide for Migration, Detailed Migration Weekend Playbook, Data Migration Tools Specifications and Related Procedures.

#### 1.4. Training principles

Based on the agreements set out in the Framework Agreement and the Currency Participation Agreement, in their respective schedules, as well as the requirements deriving from the T2S project set-up, the T2S Public Training Framework builds on the following principles:

- The T2S user training documentation shall be issued in and the T2S user training sessions shall be delivered in the English language;
- Without prejudice to the launch of T2S and outside of the defined scope of the T2S Public Training Framework, the tools derived herein shall serve as training facilities throughout the T2S life cycle, as training facilities will be required with T2S in full operation (for example in the case of a new CSD or non-euro area central bank migrating to T2S or in case of new major releases). The details will be specified in a different document;
- The T2S user training documentation shall be updated and published on the ECB T2S dedicated website every time the related T2S user documentation is updated as part of the release management process accompanied by additional training sessions if needed;
- Participation in the various training modules and training workshops shall be open to all target entities and shall not be limited to a specific group of target entities (e.g. only for CSDs, central banks, etc.);
- The T2S user training is based on the “train the trainer” concept. This is a teaching method designed to impart skills to those who want to teach others the same skills. The T2S user training documentation shall be exhaustive and self-explanatory to facilitate in-house training at CSDs and central banks (including training of their participants) and web-based training;
- The standard T2S Training Programme is offered to the target audience free of charge. Any training required on top of this (i.e. customised training sessions for an entity or a market) is offered upon request and for a fee, provided that all the necessary resources are available;

- Web-based training is offered in the form of online availability of training materials and webinars

## 2. Training objectives and scope

### 2.1. Objective and scope of the T2S user training

The T2S user training activities aim to ensure a timely and efficient knowledge transfer of T2S to the future end-users of the T2S service so that they will be able to test the service during the user testing phase and ultimately safely migrate to T2S and use the service when in production.

T2S training sessions will therefore cover aspects of day-to-day activities of a technical, functional and operational nature as well as one-off activities for the testing of and migration to T2S. For further details on the content of the respective training sessions, refer to section 3.1.1.

### 2.2. Target audience

The target audience of the T2S training sessions includes:

- those CSDs that have signed the T2S Framework Agreement with the Eurosystem;
- all Eurosystem NCBs working with TARGET2 and a national Collateral Management System as well as non-euro area central banks participating in TARGET2<sup>1</sup>;
- non-euro area central banks working with their national RTGS system and their national Collateral Management System that have signed the Currency Participation Agreement with the Eurosystem;
- Directly Connected Participants (DCP) and DCA Holders directly connected to T2S with a business relationship to any of the above-mentioned T2S actors<sup>2</sup>;
- IT service providers (ITSPs)<sup>3</sup>, with a business relationship to any of the above-mentioned T2S actors, planning to provide services within the field of T2S.

In compliance with the overall T2S client readiness approach, the CSDs and the central banks are responsible for conducting their own in-house training and for the training of their users. The T2S Public Training Framework facilitates this approach via the “train the trainer” concept, which is designed to convey skills to those who want to teach others the same skills. It builds networks of trusted professionals and promotes the good retention of training course materials. To this end, the trainers appointed by CSDs and central banks may copy and distribute the training materials provided by the Eurosystem and adapt the training to their

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<sup>1</sup> Non-euro area central banks participating in TARGET2 are Bulgaria, Denmark, Latvia, Lithuania, Poland and Romania

<sup>2</sup> In line with the provisions of the Framework Agreement, training of the DCPs is subject to CSD approval. The training of directly connected DCA Holders is subject to NCB approval.

<sup>3</sup> IT service providers do not comprise network providers chosen to supply connectivity services for T2S. The training aspects dealing with network providers will be decided once the network approach has been agreed upon.

specific needs within the limits of copyright protection and liability provisions. All training participants are required to assume full liability for potential misuse of T2S resulting from their adaptations to the training materials. Upon request and as long as prior consent from the Eurosystem is received, the CSDs and central banks may bring along their (directly connected) participants or IT service providers to the training sessions organised by the Eurosystem free of charge.

### 2.3. Scope of training topics

The training needs for T2S actors concerning typical day-to-day activities can be derived from the provisions made in the User Requirements Document {T2S.04.050 – T2S.04.160}. In addition to these, one-off activities such as testing and migration are crucial for assuring the smooth functioning of T2S. Necessary knowledge on these topics will be conveyed via the substructures, where all CSDs and CBs participate.

The roles of the staff involved in providing settlement services in **CSDs and central banks** could be grouped into (1) technical / IT administration, (2) functional/ business development and (3) operational roles and day-to-day activities. Moreover, all these teams interact with T2S via A2A and U2A (GUI).

Furthermore, the staff members of the target entities may be required to have different levels of knowledge regarding a specific activity within each generic role as well as across generic roles – whether at the basic or advanced knowledge level. For example, a corporate actions operational manager at a CSD might need to know at advanced level how corporate action-related settlement instructions are processed in T2S, but may find it sufficient to know at basic level how static data is managed, and could prefer not to have training on the tasks of the CSD IT administrator. In addition, a target entity may assign a role to another target entity to fulfil a specific task in T2S on its behalf.

The scope of business activities carried out by other target entities of the T2S Public Training Framework – namely **DCPs<sup>4</sup> and IT service providers** – is very diverse and subject to CSD/central bank approval.

In the case of DCPs, which maintain their legal relationship with a CSD/central bank but technically communicate with T2S in a direct manner, the range of functions depends on the permission of the CSD/central bank. Within the scope of the respective contracts, the roles broadly correspond to a subset of the generic roles of a CSD/central bank.

Similar to the DCPs and depending on the respective business model of a CSD or of a central bank, IT service providers can have different levels of integration into the CSD/central bank structure. Whereas some CSDs and central banks may boast a fully-fledged in-house development and operation of IT infrastructure, it is a common practice to outsource (parts of) these activities to other parties, e.g. by using a service office or integrating the providers'

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<sup>4</sup> Incl. DCA Holders directly connected to T2S.

IT infrastructure into in-house systems. Independent of this, however, the generic role of the IT service providers remains mainly technical.



## 3. Training implementation

### 3.1. T2S Training Programme

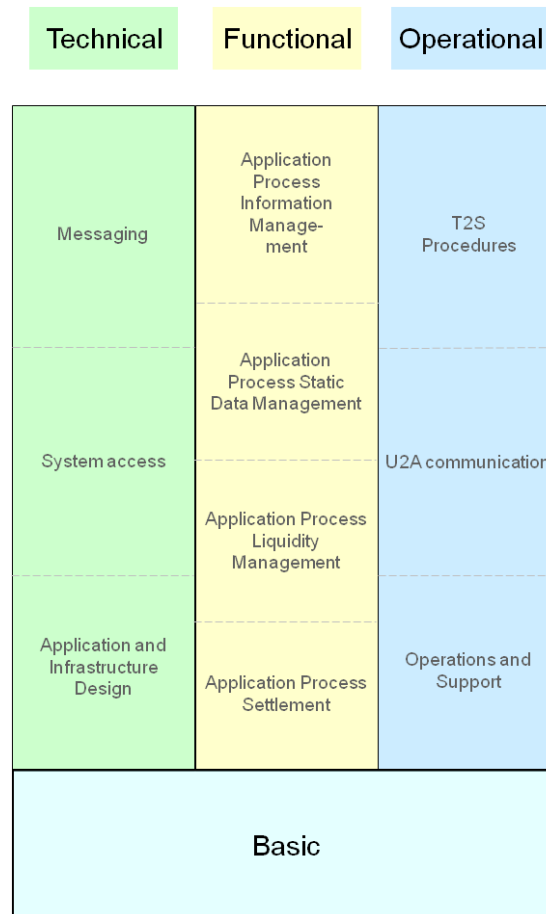
A standard class-room based T2S Training Programme in line with the objectives and scope of this T2S Public Training Framework is offered to CSDs and central banks by the Eurosystem free of charge. Some of the training sessions are provided as webinars instead of class-room training. This comprises all training sessions mentioned in the module definition, i.e. basic and advanced training. All sessions of one module cover the same content, using standardised material to support the multiplication of sessions inherent in the "train the trainer" principle.

Likewise based on the "train the trainer" principle, each CSD and central bank can send a limited number of delegates to the training sessions relevant to them. Each central bank and each CSD shall be granted a defined number of seats per training sessions. Number of seats allocated to CSDs shall be based on a 3-tier structure reflecting their size: large CSDs (above 10% of market share), medium-sized CSDs (below 10% and above 1% of the market share) and small CSDs (below 1% of market share). Market share is understood as % of delivery instructions of all contracting CSDs and is primarily based on publicly available ECB Blue Book data published on a yearly basis. DCP and ITSP delegates (on behalf of a CSD or a central bank) are accepted subject to seats being available and in agreement with the relevant CSD/central bank. These delegates are provided with all the information as well as the training materials and are responsible for distributing said knowledge within their institution and to their market. The number of delegates per training module, training session and training workshop is subject to limitations due to the availability of the logistic facilities that are to be defined for each training session. In case of conflicting requirements, the ECB will resolve these by bilateral discussions with the impacted parties. In addition, the CSDs and central banks as well as their participants (via their CSD/central bank) can request customised training sessions which will be conducted exclusively for their entity, their market or the group of T2S actors for a fee and subject to the availability of the relevant Eurosystem resources. The aim of the T2S Training Programme is to cover and convey T2S knowledge to the maximum extent possible during the standard training sessions and limit the need for customised trainings.

Upon successful completion of the training, all parties may use their test environment to gain practical experience in using T2S before migration. This does not fall within the scope of the T2S Public Training Framework and has to be organized by all entities within their testing schedule, and in case of DCPs and directly connected DCA Holders, with the permission of their CSD/central bank.

### 3.1.1. Standard training sessions and module definition

In order to support the needs of different target audiences and fulfil requirements regarding the level of knowledge, the T2S user training documentation and activities shall be based on training modules dealing with specific functional, operational, technical aspects of T2S. As a standard service, the T2S Training Programme covers training at two levels: basic and advanced. The former is of a general explanatory nature and serves to give an overview of T2S. The latter is dedicated to familiarising participants with the use of T2S in a functional, operational and technical sense. These broad training modules are further separated into workshops which can be booked individually depending on personal interest. The various training modules with their respective workshops are shown in the illustration below.



**Illustration 1: Training modules**

The training content for each training module is communicated in advance to ensure that participants can choose the session/workshop that meets their personal expectations and needs. Importance is attached to group homogeneity in order to maximise the training efficiency. A pre-course questionnaire is distributed to the participants upon application for a

training module to collect information about their background and main interests regarding the T2S Training Programme.

For each training day, six hours of lessons are planned, leaving sufficient time for breaks and personal interaction between the participants.

This T2S Training Programme is offered initially in the time period specified in section 4.2. Although it would be beyond the scope of the present T2S Public Training Framework, the T2S Training Programme can be repeated whenever a new CSD and non-euro area central bank is planning to migrate to T2S. Similarly, while being beyond the scope of the present T2S Public Training Framework, it is envisaged to offer training when new releases of T2S are published, leading to an update of the training input documents. The details will be specified in a different document.

The content of the different training modules described hereafter is provisional (i.e. subject to further adaptation).

**Basic training**

The basic training module covers fundamental information on all target audiences, focusing on the question of “what is possible in T2S?”. Basic concepts and functions as well as testing and migration aspects are presented without specific practical examples or exercises, covering the knowledge necessary for management level staff in operational, business development or IT departments of the target audience. Each basic training has a maximum number of 30 participants and is designed for all types of T2S actors regardless of their previous knowledge of T2S or their field of expertise. These sessions are mainly held at the beginning of the T2S Training Programme with the option of a second series of basic sessions later during the training period.

• **Basic training module**

Duration/No of sessions	Duration: 2 days Sessions: The basic training module is held 10 times
Training target	The aim of the basic module is to give an insight into T2S and to explain its basic functions and architecture.
Content per session	<ul style="list-style-type: none"> <li>• Basic concepts of T2S</li> <li>• System access</li> <li>• Interaction with RTGS/CMS (especially TARGET2)</li> <li>• T2S High Level Design and Business Continuity</li> <li>• Service overview</li> <li>• T2S Financial Framework</li> <li>• T2S Governance</li> <li>• User testing</li> <li>• Migration</li> </ul>

**Advanced training**

Advanced training sessions focus on the question of “how to achieve specific aims using T2S?”, and therefore cover the knowledge necessary to use T2S and to provide expert level

and first-level support to CSD and central bank participants. Each advanced training session / workshop has a maximum number of 15 – 20 participants, and takes into account the special characteristics of the respective target audience. In addition to lectures and presentations, they feature a large number of exercises and discussions.

• **Technical advanced training module**

Duration/No of sessions	Duration: 2 days Sessions: The technical advanced training module is held 8 times
Training target	The aim of the technical module is to prepare for the correct implementation of changes to their system to adapt to T2S. Connectivity training will mainly be delivered by the Network Providers separately from this training offer, the Eurosystem training only covers common and elementary issues.
Content per session	Workshop 1: Application and Infrastructure Design <ul style="list-style-type: none"> <li>• T2S architecture</li> <li>• Technical module features</li> <li>• Main components</li> <li>• System security features</li> </ul> Workshop 2: System access <ul style="list-style-type: none"> <li>• T2S Connectivity</li> </ul> Workshop 3: Messaging <ul style="list-style-type: none"> <li>• ISO messages offered in T2S (incl. XML examples)</li> <li>• Message usage</li> </ul>

• **Functional advanced training module**

Duration/No of sessions	Duration: 3 days Sessions: The functional advanced training module is held 8 times
Training target	The aim of the functional module is to present the whole functional scope of T2S.

Content per session	<p>Workshop 1: Application Process Settlement:</p> <ul style="list-style-type: none"> <li>• Business validation</li> <li>• Matching</li> <li>• Allegement</li> <li>• Instruction amendment, cancellation and recycling, linked instructions</li> <li>• Hold &amp; release</li> <li>• Posting</li> <li>• Optimising</li> <li>• Realignment</li> <li>• Conditional settlement</li> <li>• Securities blocking/reservation/earmarking</li> <li>• Autocollateralisation</li> <li>• Smooth Cross CSD settlement</li> </ul> <p>Workshop 2: Application Process Liquidity Management:</p> <ul style="list-style-type: none"> <li>• Liquidity transfer</li> <li>• Limit management</li> <li>• EOD cash management</li> <li>• Corporate actions in cash</li> <li>• Cash Blocking and Reservation</li> <li>• Collateral management</li> <li>• Autocollateralisation</li> <li>• Retrieval of liquidity transfer orders and calculation of amount</li> <li>• Liquidity monitoring</li> </ul> <p>Workshop 3: Application Process Static Data Management</p> <ul style="list-style-type: none"> <li>• Access rights</li> <li>• 2-eyes principle / 4-eyes principle</li> <li>• Security and confidentiality</li> <li>• Static data objects (types, validity, lifecycle)</li> <li>• Static data maintenance types and instructions processing</li> <li>• Static data archiving and purging</li> <li>• Status management</li> <li>• Static data communication</li> </ul> <p>Workshop 4: Application Process Information Management</p> <ul style="list-style-type: none"> <li>• Status management</li> <li>• Report generation</li> <li>• Statistical information</li> <li>• Query management</li> <li>• Query and report communication</li> <li>• Billing</li> </ul>
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• **Operational advanced training module**

Duration/No of sessions	<p>Duration: 3 days</p> <p>Sessions: The operational advanced training module is held 8 times</p>
Training target	<p>The aim of the operational module is to prepare for T2S live operation, so that T2S can be used as swiftly and efficient as possible, reducing the need for support from the T2S Servicedesk.</p>

Content per session	<p>Workshop 1: Operations and Support</p> <ul style="list-style-type: none"> <li>• Business application configuration</li> <li>• Configuration of parties, securities and accounts</li> <li>• T2S calendar</li> <li>• T2S settlement day</li> <li>• Archiving management</li> <li>• Trouble management system operation</li> </ul> <p>Workshop 2: U2A communication</p> <ul style="list-style-type: none"> <li>• Use of the Graphical User Interface</li> </ul> <p>Workshop 3: T2S Procedures</p> <ul style="list-style-type: none"> <li>• Procedures in normal situations</li> <li>• Procedures in exceptional and contingency situations</li> </ul>
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### 3.1.2. Web-based training

In addition to the online publication of training materials and in order to offer a fully-fledged web-based training to the target audience, some of the training sessions included in the standard training programme will be held as webinars. In contrast to a standard training session, the webinar does not require all participants to be in the same room. Instead, the presentation will be shown online via a standard webinar application. Trainer and participants will have access to the same documentation and oral communication will be possible via telephone or VoIP. While emphasis will be placed on high usability of this application and compliance with IT security standards, all technical requirements will be provided to the participants ahead of the meeting. Since computer exercises require a higher level of concentration, the timing of the training sessions has to be adjusted.

The provision of training material via the internet fulfils the minimum requirements made of web-based training in the URD {T2S.21.400} and as such is offered to the target audience free of charge. The web-based training is therefore structured in accordance with the training module definition (see section 3.1.1). The training materials are available in the internet approximately one month before the first relevant training session and therefore fulfil the URD {T2S.21.410}. All participants registered for a standard training session will gain access to the ECB T2S dedicated website on which the training materials are stored.

### 3.1.3. Customised training sessions

In addition to standard basic and advanced training sessions adapted to the training of a mixed audience, individual T2S actors or a group of T2S actors have the possibility to order customised training sessions for a fee. Such customised training sessions will be conducted exclusively for the requesting entity or its market and on the training modules it has requested. Their objectives and implementation are designed in cooperation with the requesting party. The aim of the T2S Training Programme is to cover and convey T2S knowledge to the maximum extent possible during the standard training sessions and limit

the need for customised trainings, therefore the requirement for a customised training session needs to be justified. For this reason, all customised training sessions are subject to prior approval by the Eurosystem and dependent on the availability of the relevant resources. Any assessment of resource availability must take into account the priority ranking of the requesting parties, i.e. the needs of CSDs migrating to T2S first have top training priority {T2S.21.390}. While CSDs and Eurosystem/non-euro area central banks can arrange terms with the Eurosystem directly concerning the provision of customised training sessions, their participants are required to agree to and request a customised training session via their CSD or Eurosystem/non-euro area central bank.

Customised training can be given on-site at the requesting party's location to the audience specified by the requesting party. It can take various forms, e.g. individual "train the trainer" sessions as well as group training addressed at all employees involved in the deployment of T2S at a certain entity.

### 3.2. Training materials

The use of the "train the trainer" concept requires extensive and fully-fledged training materials that can easily be re-used and distributed by the trainers that have undergone training. In contrast to the general T2S documentation (URD, GFS, UDFS, ...) which focus on a "specification" role, the training materials are dedicated to teaching the various relevant aspects of T2S in a precise, clear and easily understandable manner. In the case of all training sessions, the training materials employed need to cover the content of the session as specified in section 3.1.1, using the documents mentioned in section 1.3 as a basis.

Basic training sessions, which have a comparatively large and heterogeneous audience, are typically held using presentations and handouts, which can easily be re-distributed and replicated by the trainers that have undergone training.

Advanced training sessions use a broader mix of training materials, although they also rely on presentations and handouts to a large extent. To foster the dialogue between trainer and trainees and cover all possible questions, exercise sheets or online demonstrations are used. For training on the T2S GUI, for example, an online demo version is used to illustrate selected business cases.

### 3.3. Training evaluation

All training participants will have the chance to evaluate their respective training session using a standard evaluation form prepared by the Eurosystem. If it is deemed necessary, the Eurosystem will make adjustments to its provision of T2S training.

## 4. Training organisation

### 4.1. Location of T2S user training sessions

The standard class-room training sessions both at the basic and the advanced level that are contained in the standard T2S Training Programme shall take place at the relevant locations of the ECB/4CB in the individual countries – Germany (Frankfurt am Main), France (Paris), Italy (Rome) and Spain (Madrid).

The customised training sessions are organised by the requesting entity and are expected to take place in the country of that party so as to allow the participation of all interested local organisations and entities, subject to the approval of said party. Alternatively, the customised training session could also be held at 4CB location against an additional fee.

### 4.2. Indicative training timeline until first wave of migration

The time plan for T2S user training sessions must allow for a sufficient number of training sessions to cater for the different knowledge levels in order to accommodate the objectives, scope and target audience of the T2S Public Training Framework and to leave sufficient time for CSDs and central banks to conduct the respective trainings with their participants.

The T2S Training Programme (excluding training on migration) shall start 12 months prior to the launch of T2S user testing which starts with the bilateral interoperability testing.<sup>5</sup> This fulfils the requirements made in the URD {T2S.21.380 and T2S.21.420}. Different training needs will prevail at different points in time during this period. For example, CSDs and central banks will request advanced level knowledge on technical aspects necessary for CSDs and central banks adapting to and connecting local IT environments to T2S (e.g. T2S inbound and outbound messages) at an earlier point in time than operational training. Nevertheless, basic training should be taken as the starting point for any participant in the T2S Training Programme. The T2S training calendar, defining the concrete dates and locations and taking the above considerations into account, will be available on the ECB T2S dedicated website 6 months prior to the start of the T2S Training Programme. Without prejudice to its content, training sessions could be roughly allocated as follows:

- 12 to 9 months before user testing: First series of basic training sessions
- 9 to 6 months before user testing: Technical sessions
- 6 to 3 months before user testing: Functional sessions
- from 3 months before user testing: Operational sessions
- first 3 months of user testing: Second series of basic sessions

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<sup>5</sup> See Framework Agreement.



Training will be offered periodically whenever a new T2S release is published<sup>6</sup> This fulfils the requirements made in the URD {T2S.21.430}.

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<sup>6</sup> This is outside the scope of the present T2S Public Training Framework as specified in section 3.1.1 and specified in a different document.