



## **USER REQUIREMENTS**

## **MANAGEMENT SUMMARY**

### **T2S Project Team**

Reference:	T2S-07-0373
Date:	12 December 2007
Version:	2
Status:	Final



**EUROPEAN CENTRAL BANK**

EUROSYSTEM

**T2S is a technical platform to support CSDs in providing core, borderless and neutral settlement services. The objective is to achieve harmonised and commoditised delivery-versus-payment settlement in central bank money in euros (and possibly other currencies) in substantially all securities in Europe. T2S thereby supports the Lisbon agenda in securities markets.**

### *Purpose and expectations*

The user requirements posted on the ECB website<sup>1</sup> define the features that both CSDs and financial market participants require for core, borderless and neutral settlement of securities in Europe. They are the result of six months of very intensive co-operative work by hundreds of experts from CSDs, banks and central banks (see list of contributors), with the ECB providing co-ordination, and drafting the results.

The requirements were published on 18 December 2007 and will be subject to consultation until 2 April 2008. During these three months, the T2S team at the ECB will actively facilitate discussion so that each financial market participant and CSD has the opportunity to gauge the impact of, and opportunities offered by, T2S.

This management summary is **aimed at high level executives** of financial market participants, issuers and CSDs. These institutions are invited to assess the impact of T2S at very senior levels, and in a way which covers all aspects of their securities business (lifecycle management, custody operations, funding and collateral, retail and wholesale client servicing, market making, new issues etc) in order to determine the extent of their support for this potentially transformational change. The extended period for responses is to give adequate time for this assessment.

The Eurosystem invites CSDs, issuers and financial market participants to provide an in-depth analysis of the user requirements, all of which are open for review during the consultation period. The ECB will provide a standard feedback template for this review.

After the consultation period, the ECB Project Team will analyse the responses and prepare revised requirements, where appropriate. The requirements will be reviewed using the current governance structure involving the Technical Groups, the Advisory Group and ultimately the Governing Council. The ECB Project Team will actively provide feedback to respondents on their responses, including to stakeholders not represented in these groups.

The final user requirements, together with an updated economic and business case analysis, a revised timetable for implementation, and governance proposals, will be presented to the ECB decision-making bodies for decision in summer 2008 as to whether to start the build phase. The Governing Council will need to see support from the market before taking this decision.

---

<sup>1</sup> <http://www.ecb.europa.eu/paym/t2s/html/index.en.html>

### *The context – completing the single market in financial services*

The European financial services industry has made considerable progress in reducing cost and risk, and in promoting competition within the single market, since the establishment of the euro. But there can be no doubt that significant further improvements are required, particularly in securities markets.

Progress towards a mature single market has been achieved by a combination of market forces and of actions undertaken by the public sector to enable market forces to be effective; these actions were in part legislative, to stimulate harmonisation across national borders, and in part involved the creation of core infrastructure to support the competitive market's operation. The Eurosystem has been active in the payments industry by providing the core borderless infrastructure for real-time settlement in central bank money (TARGET2) and supporting the banking industry in delivering pan-European payment instruments (SEPA). Further support for the single market will come from the streamlining of its collateral management systems (CCBM2).

There has been much less progress in integrating national securities markets, in large part because of the much greater intrinsic complexities of securities, which has permitted the evolution of national differences both in market practices, and in legal, regulatory and fiscal regimes. Thus, although Europe is comparable to the US in terms of its economic size, its post-trade sector is fragmented into multiple national markets. Whereas firms in the US can operate in a single, large domestic market, in Europe they have to operate across many smaller, national markets and bear the higher costs of doing so. Because of this lack of integration, Europe lags behind the USA in terms of both the volume of transactions, and the cost of those transactions<sup>2</sup>.

The cost gap is particularly large for cross-border settlement. The consequence is a significant cost burden on cross-border wholesale transactions, and a very significant inhibition of retail transactions. The Lisbon Agenda recognises the need to eliminate these gaps, to promote the welfare of European citizens by achieving fully efficient capital markets.

The gap in the trading area is being forcefully addressed, in particular by MiFID stimulating competition between trading platforms, whether traditional stock exchanges or new Multilateral Trading Facilities.

On the post-trading sector, the European Council recently concluded<sup>3</sup> that “the continuous fragmentation of the sector leads to unnecessarily high costs, especially for cross-border securities transactions in the EU, which constitutes a considerable competitive disadvantage for European capital markets.”

Two significant measures are already being implemented to achieve progress. First, a great deal of work is under way to harmonise practices, law, regulation and tax to remove the “Giovannini barriers”. Second, all exchanges, central counterparties and CSDs have undertaken under the “Code of Conduct for clearing and settlement” to abide by various measures designed to stimulate fair and open competition among themselves.

---

<sup>2</sup> See for example: The Direct Costs of Clearing and Settlement – Nera Economic Consulting – June 2004;

<sup>3</sup> Council Conclusions on Clearing and Settlement; Luxembourg 9 October 2007

[http://www.consilium.europa.eu/ueDocs/cms\\_Data/docs/pressData/en/ecofin/96349.pdf](http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ecofin/96349.pdf)

These include access rights as well as seeking to ensure that their clients are offered appropriate and transparent prices for unbundled services to end cross-subsidies and locking clients in.

A missing element is **core, borderless and neutral securities settlement** to crystallise the gains from harmonisation and to provide support for competition between service providers in the securities industry. T2S is neutral in that it will not discriminate against, or favour, specific countries, market infrastructures or particular groups. It will foster the required transformation in intermediation between issuers and investors by stimulating the development by financial market participants of a competitive and efficient European market.

Although there have been successful mergers between European CSDs – and there may be more – it seems that this process of consolidation by merger is unlikely to deliver an integrated market infrastructure for Europe. Accordingly, given the importance of making progress, it is necessary to find a way of **combining a single settlement process with a multiplicity of CSDs**.

T2S will fulfil this need.

### *What is T2S?*

T2S is a platform for core, neutral and borderless securities settlement to support the Lisbon agenda.

It provides harmonised and commoditised delivery versus payment in central bank money in euros (and possibly other currencies) in substantially all securities circulating in Europe.

Settlement will be extremely **safe**, because it involves central bank money payment. Reliability, scalability and robustness (as provided by the TARGET2 service) are also vital, in view of the huge volumes of transactions to be settled even in today's fragmented markets (two million settlement instructions per day) – and becomes still more vital as volumes increase.

Much of the growth will be in cash trading and in collateral markets, which contribute greatly to liquidity but are low margin activities. Such trades are only economic in risk/return terms if settlement is both timely and reliable.

Settlement also needs a sound legal basis. T2S will build on a set of European initiatives in this area (following the implementation of the Settlement Finality Directive, the Financial Collateral Directive, MiFID and other measures) and the Eurosystem will seek to foster further harmonisation.

**CSDs are the Gateways** for market participants to T2S services. Participants will continue to contract with one or more CSDs for settlement (across accounts of that CSD) of securities eligible for settlement in that CSD. Moreover, CSDs, not market participants, will contract with the Eurosystem for T2S services.

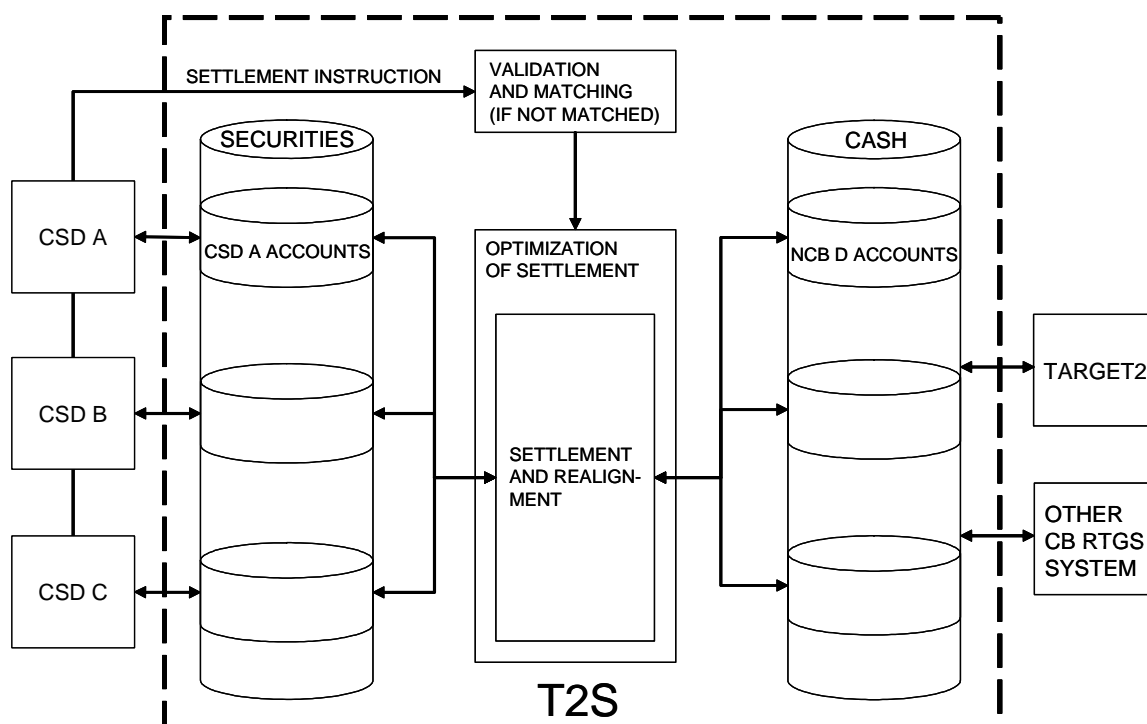
Each CSD is invited to agree to move its settlement to T2S and to offer its clients borderless settlement of trading and collateral operations. Most CSDs should be able over time to reduce their internal costs by restructuring and downsizing their own settlement processes.

## T2S User Requirements - Management Summary

CSDs will continue to operate, provide and improve efficient and safe services particularly in relation to national requirements in such areas as registration, taxes, regulatory reporting and some aspects of direct holdings by retail investors, at prices which are (as required by the Code of Conduct) a transparent and fair reflection of the cost of providing each of those services.

T2S will create opportunities for CSDs and market participants to develop their businesses in new ways to exploit efficiencies or to offer new services. As core, neutral infrastructure, T2S will support the different business models adopted by CSDs and market participants without discrimination.

Some CSDs may wish to consider **investing in asset servicing** to support their clients' growing operations in securities Europe-wide. This may imply a significant adaptation of their current business model. While T2S provides the core functionality to make cross-border settlement as simple as domestic settlement, access to European securities via any individual CSD is dependent on that CSD being able and willing to accept securities issued in other CSDs. To use a railway analogy, T2S provides the "tracks" for cross-border settlement, but requires adaptation in the "trains" (the CSDs) to meet their "passengers" demands for such a service. While T2S is in itself not sufficient to meet these passengers' demands, it creates incentives for some train companies to undertake this adaptation. Such incentives barely exist today, since the necessary shared tracks have not been created by a neutral player.



As the diagram indicates, CSDs will keep all their clients' securities positions in T2S, which will map to each CSD's **account structure** (including direct holdings), without accommodating all the ancillary account

information maintained by CSDs for their clients. Thus, each securities account held in T2S will be attributable to only one CSD.

Similarly, T2S will maintain **dedicated central bank money** accounts representing claims in central bank money of a CSD's client on that client's chosen national central bank. Each such account may be used to settle transactions relating to the client's security accounts in one or more CSDs. This cash account structure will foster efficiency improvements for clients, which use more than one CSD.

When a CSD client does not have access to central bank money, it may be authorised by a payment bank to operate a dedicated cash account in T2S. This will provide CSD clients with a choice of payment bank.

T2S will provide **DvP settlement in real-time** with auto-collateralisation and optimisation procedures, irrespective of which CSD and NCB provide the respective underlying securities and central bank money accounts. It can do so by providing realignment in real-time, when securities issued in one CSD are settled in other CSDs.

CSDs will thus be able to offer their clients cross-border settlement in central bank money - a service that is hardly available today.

T2S will enable **direct connectivity** by CSDs' clients and by CCPs. They will input settlement instructions directly to the T2S platform and receive information on the results, where the relevant CSD allows this connection. For other services, not available from T2S, they will connect to the relevant CSDs. Direct connectivity can make it easier for market participants to operate direct memberships of multiple CSDs and for CSDs to reach a wider set of international clients.

The decision on direct or indirect connectivity will depend inter alia on the pricing of such services by the CSDs, and on whether the user finds it possible to concentrate its activities in fewer CSDs as the market develops. Offering both direct and indirect options provides maximum flexibility for financial market participants, has no significant additional cost for T2S and may well be a driver towards harmonisation.

T2S will **match settlement instructions** relating to cross-CSD settlement, and also those input directly to T2S. It will also accept matched instructions from other infrastructures which apply the same matching rules. Since multiple matching facilities will exist, there needs to be a rule to determine the location of matching where users have conflicting preferences. In those circumstances, the matching will take place in T2S.

T2S will deliver settlement at a **low cost**, reflecting the very strong economies of scale in such services. Once T2S is serving all EU countries, these economies of scale should make the unit cost considerably lower than the lowest price charged by a European CSD at current volumes. If volumes rise (stimulated by the reform programme set out above) to USA levels, the cost is expected to fall very significantly, towards USA levels.

The low projected unit cost applies to cross border settlement as well as domestic settlement; there are no borders within T2S.

T2S will be a Europe-wide core securities settlement platform, since its design will accommodate settlement in **central bank money in other currencies**, where the relevant central bank and the market wish to support such services. The sooner these central banks and markets make such decisions, the better the prospects of accommodating them in the build phase. Where non-euro currencies join, T2S would interact with the RTGS system of each relevant central bank in the same way as it will do with TARGET2.

T2S is expected in time to become the **single provider** of core securities settlement platform to CSDs. This model of a single provider of “backbone” services is one that some countries have adopted for distribution networks in other industries (e.g. telecoms). Such core infrastructure is tightly controlled as regards reliability and pricing, and is available on equal terms to all producers. Provision of core settlement services by the Eurosystem fits with this model.

Moreover, competition between CSDs (and the resulting benefits) has been very limited. For many securities there is hardly an alternative to the local market CSDs. CSDs were set up not to compete with one another, but to be the central infrastructure within each country, tightly regulated so as to keep a low risk profile. Shifting to competition with other CSDs to be the preferred gateway to T2S may thus require changes in the mandates and/or regulatory structures of some CSDs. Provision of core services by T2S, by lowering the barriers to entry to new markets, has the potential to create new opportunities for competition.

The Eurosystem has determined that T2S will be run on a full cost recovery and not-for-profit basis. T2S will ensure full accountability and transparency of costs and prices, in full compliance with the industry Code of Conduct, so that the market can scrutinise operating and investment efficiency. These factors support the Eurosystem’s decision that it will **control T2S via its ownership** rights. It will of course continue to keep the market involved, building on the open and co-operative culture developed in preparing the current user requirements.

The ownership decision also provides clear accountability for the important task of managing the risks of creating a systemically important infrastructure that could become a single Europe-wide point of failure. The risks are not new: each CSD is today a single systemically important point of failure for its own markets. Nevertheless, there is no doubt that the scale of the risks will be larger in T2S. It is important that the Eurosystem should not be constrained in its ability to manage those risks, alongside those relating to the equally important TARGET2 system, which will be operationally coupled to T2S.

### *The impact of T2S*

Designing a common settlement platform is in itself a driver in promoting **harmonisation**. The impact of T2S on harmonisation is already being felt, building on valuable work by CSDs. (An annex in the full requirements package lists the detailed impacts already agreed.) The Euroclear Group’s experience in bringing several national CSDs together has created valuable impetus in this direction.

There has been considerable support for keeping T2S lean. The temptation to develop specific functionality in T2S to support national specificities has been resisted; instead, processes for CSDs and users have been identified that allow markets to continue to support national specificities using basic T2S functionality. The provision of an internal technical account for “direct holding markets” will allow bulked stock exchange transactions undertaken by brokers acting for retail investors to be allocated for settlement, separately by buyer and seller without re-matching each split. This functionality should support, at very low cost, the wish of several markets to allow separate recording of each investor's holdings.

Each national market will need to review whether it wishes to retain its existing specificities. Where a national specificity is not perceived to provide value, the development of T2S will increase the incentives to remove it. One such incentive is the greater likelihood that part of the activity in domestic securities may shift to another CSD which does not oblige international users to incur the costs of extra processes to accommodate the national specificity. Moreover, where there are implicit subsidies which support national specificities, the transparent and uniform charging policy of T2S will make the true costs more apparent, in a way which properly reflects (in line with the Code of Conduct) the resource costs of choices made by intermediaries, issuers and markets. This transparency may well lead to a reduction in divergences of practice across market segments.

T2S will facilitate further harmonisation in market practices in cooperation with financial market participants in relation to the use of T2S, at the European level. An initiative is already under way to identify a list of topics the harmonization of which would facilitate the use of T2S by market participants. It is likely that this work will expose further barriers of the kind already identified by Giovannini, as well as helping users to identify the irreducible costs of unresolved barriers in the new efficient borderless settlement environment. This will encourage speedy action to harmonise practices (especially in relation to corporate actions), taxes, law and regulation.

Adoption of T2S will, as noted above, reduce pure settlement costs – particularly for what are today cross-border trades. This is expected to increase cross-border volumes.

This shift to borderless markets in T2S will in turn deliver significant benefits to end-users, particularly in smaller countries. Issuers will have access to deeper markets for fund-raising without needing to consider issuing in a different state; and investors will be able to benefit from portfolio diversification at lower cost. These benefits will require little or no adjustment by intermediaries, especially on the capital raising side.

T2S will also create a single pool of assets – substantially all the securities held by participating CSDs – exchangeable for each other via central bank money at low cost, in real time, and in an extremely reliable settlement system. Market participants will also be able to centralise liquidity in a single central bank cash account. Together, these features will create valuable new options for commercial and investment banks in managing collateral, optimising their funding costs and avoiding failed deliveries. The gains will include the benefits of enhanced competition among third party collateral managers and liquidity providers, since such services will be more capable of being unbundled from custody provision. The reduction in costs is likely to be



very substantial, from indications given by market participants; this will feed through to reduced trading spreads and lower service prices, and thus improve welfare.

There will be other effects on, and gains through, enhanced competition, specifically in the areas of custody and securities trading.

Some CSDs will want to enhance their asset servicing abilities both for their “domestic” securities, and also for securities they wish to offer their clients but which are “domestic” to another CSD. Others may choose to specialise in issuer services and/or services to individual investors. This will reinforce the pro-competition effects of the Code of Conduct.

Banks providing custody will need to consider their strategy; their wholesale customers in particular (but in time also their retail clients) are likely to wish to reduce their number of suppliers by seeking partners with pan-European, or at least regional, services.

The outcome of this process is very likely to be favourable in terms of service quality and price, particularly in the context of real progress on harmonisation through the Giovannini process.

### *What's next?*

T2S will provide core neutral and borderless securities settlement platform to support securities markets in Europe. The requirements spell out in sufficient detail the vision of the hundreds of market participants that have worked with the T2S team to produce a design to fit this need. Readers are urged to consider the impact of T2S on all aspects of their business, and to make known to the team, and to their peers and trade associations, their views as to the desirability of the vision becoming reality. The team stands ready for discussions and debate, both on the big picture and on the underlying details.