



European Central Securities  
Depositories Association

# European CSD FACTBOOK

*2017 version*

*Based on 31 December 2016 data*

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\* On 18 September 2017, the Baltic CSDs – ECSD, CSDL and LCD merged into Nasdaq CSD

\*\* globeSettle stopped their operations in June 2017

# Introduction

This Factbook contains two sections:

- Section A provides an overview of the Central Securities Depository (CSD) landscape in Europe. The analysis, based on 2016 data from the European Central Securities Depositories Association (ECSDA) online database, looks at different aspects of CSD activities:
  - I. Legal framework,
  - II. Corporate governance,
  - III. Users,
  - IV. CSD services,
  - V. CSD securities transactions.
- Section B contains factsheets with basic facts and figures on all individual ECSDA members. The information contained in these factsheets is simplified in order to facilitate comparability. Readers who would like to find out more about an individual CSD are encouraged to visit the CSD's website, indicated at the top of each factsheet.

For the purpose of this report, the term "CSD" covers both national and international central securities depositories (ICSDs), unless otherwise specified. CSDs are mostly referred to using their short names (see Table 1).

**Table 1. List of ECSDA members**

For ease of reading, individual CSDs are described with an acronym or short name, as follows:

| Country of establishment | Market             | Acronym      | Full name                                     |
|--------------------------|--------------------|--------------|-----------------------------------------------|
| AT                       | Austria            | OeKB CSD     | OeKB CSD GmbH                                 |
| BA                       | Bosnia-Herzegovina | CR HoV RS    | Central Registry of Securities JSC Banja Luka |
| BA                       | Bosnia-Herzegovina | RVP          | Registry of Securities                        |
| BE                       | Belgium            | EB           | Euroclear Bank                                |
| BE                       | Belgium            | EBE          | Euroclear Belgium                             |
| BG                       | Bulgaria           | CDAD         | Central Depository AD                         |
| CH                       | Switzerland        | SIX SIS      | SIX SIS Ltd                                   |
| CY                       | Cyprus             | CSE          | Cyprus Stock Exchange                         |
| CZ                       | Czech Republic     | CSD Prague   | Central Securities Depository Prague          |
| DE                       | Germany            | CBF          | Clearstream Banking AG                        |
| DK                       | Denmark            | VP           | VP Securities                                 |
| EE                       | Estonia            | ECSD*        | Estonian CSD                                  |
| ES                       | Spain              | Iberclear    | Iberclear                                     |
| FI                       | Finland            | EFI          | Euroclear Finland                             |
| FR                       | France             | EF           | Euroclear France                              |
| GR                       | Greece             | ATHEXCSD     | Hellenic Central Securities Depository SA     |
| HR                       | Croatia            | SKDD         | Central Depository & Clearing Company Inc.    |
| HU                       | Hungary            | KELER        | KELER Ltd.                                    |
| IS                       | Iceland            | NCSDI        | Nasdaq CSD Iceland                            |
| IT                       | Italy              | Monte Titoli | Monte Titoli S.p.A.                           |

|           |                  |               |                                                      |
|-----------|------------------|---------------|------------------------------------------------------|
| <b>LT</b> | Lithuania        | CSDL*         | Central Securities Depository of Lithuania           |
| <b>LU</b> | Luxembourg       | CBL           | Clearstream Banking Luxembourg                       |
| <b>LU</b> | Luxembourg       | globeSettle** | globeSettle SA                                       |
| <b>LU</b> | Luxembourg       | LuxCSD        | LuxCSD SA                                            |
| <b>LV</b> | Latvia           | LCD*          | Latvian Central Depository                           |
| <b>ME</b> | Montenegro       | CDA           | Central Depository Agency of Montenegro              |
| <b>MK</b> | F.Y.R. Macedonia | CSD AD Skopje | Central Securities Depository AD Skopje              |
| <b>MT</b> | Malta            | MSE           | Malta Stock Exchange                                 |
| <b>NL</b> | Netherlands      | ENL           | Euroclear Nederland                                  |
| <b>NO</b> | Norway           | VPS           | The Norwegian Central Securities Depository          |
| <b>PL</b> | Poland           | KDPW          | The Central Securities Depository of Poland          |
| <b>PT</b> | Portugal         | Interbolsa    | Interbolsa                                           |
| <b>RO</b> | Romania          | DC            | Depozitarul Central                                  |
| <b>RS</b> | Serbia           | CR HoV        | Central Securities Depository and Clearing House     |
| <b>RU</b> | Russia           | NSD           | National Settlement Depository                       |
| <b>SE</b> | Sweden           | ESE           | Euroclear Sweden                                     |
| <b>SI</b> | Slovenia         | KDD           | Central Securities Clearing Corporation              |
| <b>SK</b> | Slovakia         | CDCP SR       | Central Securities Depository of the Slovak Republic |
| <b>TR</b> | Turkey           | MKK           | Central Securities Depository of Turkey              |
| <b>UA</b> | Ukraine          | NDU           | National Depository of Ukraine                       |
| <b>UK</b> | United Kingdom   | EUI           | Euroclear UK & Ireland                               |



To view the full ECSDA database online or to download it in Excel, scan this QR code or go to:  
<http://ecsda.eu/facts/2016database>

\* On 18 September 2017, the Baltic CSDs – ECSD, CSDL and LCD merged into Nasdaq CSD

\*\* globeSettle stopped their operations in June 2017

# Section A: The CSD landscape in Europe

## Brief overview of the industry in 2016

Between January and December 2016, the European CSDs industry has improved its indicators even further on the following key parameters:

- At 31 December, ECSDA members held securities worth more than EUR 54.9 trillion, which is a 2.3 % increase in comparison with the previous year.
- Over the course of the year, European CSDs opened almost 400 000 new accounts, and by the end of the year were holding over 83.7 million accounts for their users in total.

At the same time, the CSD industry delivered 5 % less securities instructions than during the previous year. As a standalone figure the deliveries still represent an impressive EUR 1.096 quadrillion of securities.

The total number of CSD participants in all European CSDs has also decreased from 7 021 in 2015 to 6 785 in 2016 (3.4 % less).

## 1. Legal framework

### Introduction - Countries covered in the report

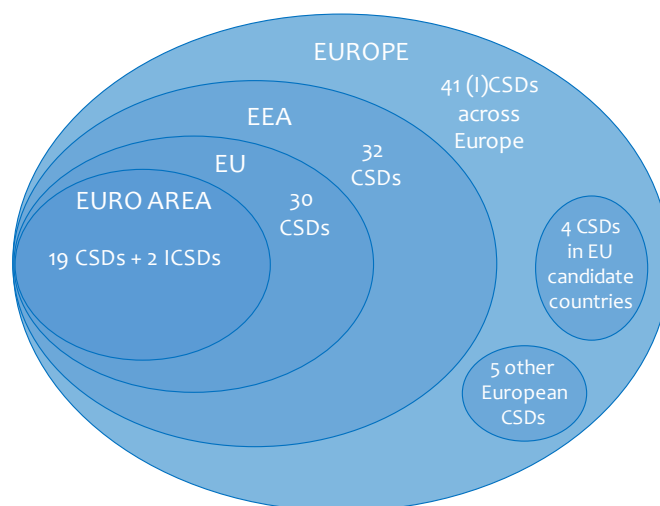
In 2016, ECSDA had 41 members, headquartered in 37 countries across Europe. ECSDA's membership has remained unchanged since 2014. With the exception of Ireland, all countries in the European Union have a CSD operating on their territory. Euroclear UK and Ireland, which is headquartered in London, offers CSD services for Irish as well as UK securities.

Luxembourg is a country with an exceptionally high number of CSDs. It hosts four: Clearstream Banking Luxembourg, LuxCSD, globeSettle, and VPLux<sup>1</sup>, the last of which is a wholly-owned subsidiary of VP Securities, the Danish CSD. Belgium is home to three CSDs: Euroclear Belgium, Euroclear Bank, and the CSD of the National Bank of Belgium.

This report provides an overview of the CSD industry as it stood on 31 December 2016. On 18 September 2017, the Baltic CSDs – ECSD, CSDL and LCD have merged into Nasdaq CSD. As the data was collected before their merger, the information is, therefore, reported for each Baltic CSD separately. (In this sense, there will be a difference in the next yearly CSD industry overview).

<sup>1</sup> VPLux is not included in this Factbook because it is one of the rare European CSDs that is not yet a member of ECSDA. In the EU, in addition to VPLux, only the new Slovak CSD NCDP and the central bank CSDs are not yet ECSDA members.

Chart 1. ECSDA geographical coverage



## Regulatory environment

CSDs are highly regulated institutions across the globe. Generally, either their national securities law contains a section on their role and responsibilities, or there is a dedicated legal act describing their role and activities. The 32 CSDs established in the European Economic Area (EEA) are subject to European legislation, including EU Regulation 909/2014 on central securities depositories and securities settlement, the so-called CSD Regulation or "CSDR". Seven ECSDA members (the Austrian OeKB CSD, the Belgian Euroclear Bank, the Hungarian KELER, the German CBF, the Luxembourg CBL, the Russian NSD, the Swiss SIX SIS) operate with a banking license and, therefore, are also subject to relevant banking laws and CSDR dedicated articles.

All EEA CSDs are [designated Securities Settlement Systems](#) (SSSs) under the European Settlement Finality and Financial Collateral Directives ([Revised EU Directive 98/26/EC hereafter "SFD"](#)). The EU Directive helps to reduce counterparty risk in transactions and guarantees that transfer orders and collateral movements which enter into such systems are effectively settled (with finality), regardless of whether the sending participant has become insolvent or transfer orders have been requested by a counterparty to be revoked in the meantime.

Most CSDs established in a euro area country are also eligible securities settlement systems under the Eurosystem assessment framework<sup>2</sup>. Although the term "Securities Settlement System" is the same, this designation is made for different purposes. The Eurosystem designation means that the CSD can be used by their participants for mobilising collateral to secure central bank credit in the context of Eurosystem monetary policy operations. Therefore, CSDs designated by Eurosystem<sup>3</sup> are compliant with additional requirements for that purpose.

Finally, all European CSDs are also subject to the Principles for Financial Market Infrastructures (PFMI) covering all aspects of CSD activities such as the legal framework, governance, risk management and efficiency. International oversight standards elaborated by the Committee on Payment and Market Infrastructures (CPMI) and the technical committee of the International Organization of Securities Commissions (IOSCO), representing central banks and securities regulators respectively.

### Main European and international rules governing CSD activities

| Rules                                                                   | Author         | Year                                                   |
|-------------------------------------------------------------------------|----------------|--------------------------------------------------------|
| <a href="#">Settlement Finality and Financial Collateral Directives</a> | European Union | 1998/2009 (last amended by the CSD Regulation in 2014) |
| <a href="#">Principles for Financial Market Infrastructures</a>         | CPMI, IOSCO    | 2012                                                   |
| <a href="#">Eurosystem Assessment Framework for SSSs and links</a>      | Eurosystem     | 2014                                                   |
| <a href="#">CSD Regulation</a>                                          | European Union | 2014                                                   |

<sup>2</sup> European Central Bank, *Framework for assessment of Securities Settlement Systems and links to determine their eligibility for use in Eurosystem Credit operations*, <https://www.ecb.europa.eu/pub/pdf/other/frameworkfortheassessmentofsecuritiessettlementsystems201401en.pdf?34be75e9338b76dc238305ec367fd2ab>

<sup>3</sup> The list of eligible securities settlement systems is publicly available on the ECB website at: <http://www.ecb.europa.eu/paym/coll/coll/eligiblesss/html/index.en.html>

## Settlement systems

All ECSDA members (that have well established operations)<sup>4</sup> offer Delivery-versus-Payment (DvP) settlement as a core service. This means that the transfer of securities from the seller to the buyer only occurs if the payment has been made from the buyer to the seller (and vice versa). The DvP process is essential because it reduces risk in the market. Thanks to the simultaneous and irrevocable transfer of securities and cash, CSD participants have the guarantee that they will not pay for securities without receiving them, and that they will not deliver securities without receiving the corresponding payment.

The Bank for International Settlements (BIS)<sup>5</sup> identifies three DvP models, as illustrated in Table 3. All BIS models are in use, and it is common for a CSD to use more than one model depending on the market it serves. BIS model 1 is also called Real-Time Gross Settlement (“RTGS”) and is used by 35 ECSDA members out of 41, either alone or in combination with model 2 or 3. NSD, the Russian CSD, uses all three models.

Following the migration to the TARGET2-Securities (T2S) platform, some CSDs have stopped using net settlement models, adopting Model 1 on an exclusive basis. This is the case, for instance, of the Portuguese Interbolsa and the Spanish Iberclear.

**Table 3. BIS settlement models**

|                | SECURITIES TRANSFER | CASH TRANSFER |
|----------------|---------------------|---------------|
| <b>MODEL 1</b> | Gross               | Gross         |
| <b>MODEL 2</b> | Gross               | Net           |
| <b>MODEL 3</b> | Net                 | Net           |

In cases where more than one model is used, Model 1 is typically used for over-the-counter (OTC) transactions. On-exchange transactions frequently involve some form of netting and are thus settled according to Model 2 or 3. Five CSDs (the Bulgarian CDAD, the Czech CSD Prague, the Icelandic NCSDI, the Norwegian VPS and the Serbian CR HoV) settle exclusively with Model 2.

20 ECSDA members have signed the T2S framework agreement, which means that they have outsourced or will outsource settlement for central bank money to a joint technical platform operated by the Eurosystem. The last wave for joining the platform took place in September 2017. T2S is expected to deliver harmonised DvP settlement in central bank money for most European securities. Among the ECSDA members participating in T2S, 16 are established in the euro area. Out of 20, four CSDs established outside the euro area (the Swiss SIX SIS, the Danish VP, the Hungarian KELER, the Romanian DC) use or will use T2S for the settlement of transactions in euros. In addition to transactions in euro, as of 2018, T2S will also settle in Danish Kroner (DKK).

In addition to ECSDA members, three other CSDs (the National Bank of Belgium CSD, the Greek central bank CSD BOGS, and VPLux) have also opted to join the T2S platform. More details on the T2S project and migration plan can be found at [www.t2s.eu](http://www.t2s.eu). ECSDA is currently analysing the impact of T2S on CSDs links and you will find more information in the ECSDA report on CSD links in Europe on the [ECSDA website](#).

<sup>4</sup> All ECSDA members apart from globeSettle.

<sup>5</sup> BIS (1992), *Delivery versus Payment in Securities Settlement Systems*, available at: <http://www.bis.org/publ/cpss06.pdf>



## II. Corporate governance

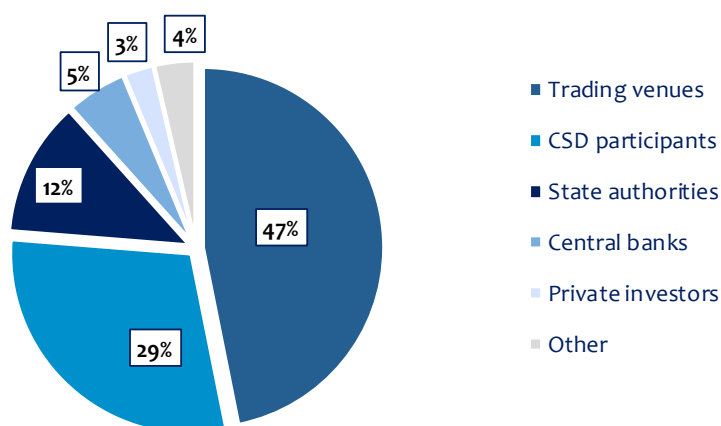
### Ownership models

CSDs display a great diversity of corporate structures and ownership models; one could argue that each CSD has a unique ownership structure. In order to aggregate information on ownership models, ECSDA collected data on the proportion of CSD shares owned by the following seven types of entities: state authorities (the Ministry of Finance, for example), central banks, trading venues, central clearing counterparties (CCPs), CSD participants, private investors (including, for example, institutional investors like sovereign funds, pension funds and insurers), and other entities.

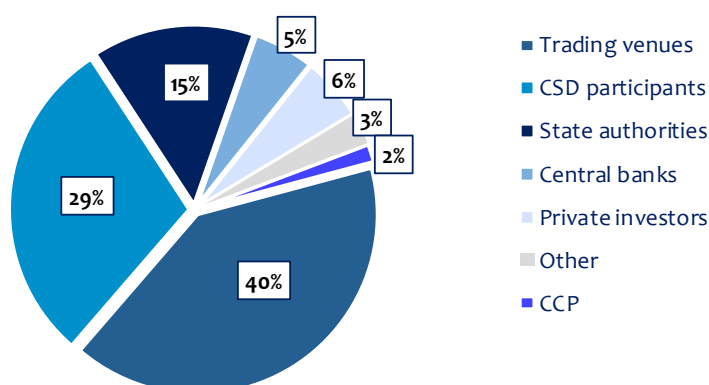
Based on this information, one way to look at CSDs' (group) ownership across Europe is to sum up the ownership stakes of the different categories of entities for all 41 CSDs and see how an average CSD would look based on this approach. Chart 2 illustrates the proportion of shareholders from different categories in a theoretical CSD, contrasting the prevalent shareholder types in the EU and outside the EU.

**Chart 2. Main shareholder types in European CSDs**

**2a. EU CSDs**



**2b. Non-EU European CSDs**



In both EU and non-EU CSDs trading venues (primarily stock exchanges) hold by far the largest stake in CSDs. However, non-EU European CSDs typically have a stronger involvement of state authorities, of

private investors and even CCPs in CSDs' share capital. In both EU and non-EU CSDs, CSD participants represent a little less than a third of CSD owners.

Another way to compare CSD (group) ownership models is to look at the majority shareholder(s) in each CSD, as is done in Table 4. This allows us to group CSDs in five categories and to make a few observations.

**Table 4. ECSDA members organised by majority shareholder type. (Shareholders with more than 50% of the shares in a csd).**

| Majority shareholder(s)                            | CSDs                                                                                                                                                                                                                                                                                                      | No. of CSDs |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Trading venue (securities exchange)                | CSD Prague (100%), CBF (100%), Iberclear (100%), ATHEXCSD (100%), NCSDI (100%), LCD (owning ECSD and CSDL) is 100% owned by Nasdaq Nordic Oy, CBL (100%), globeSettle (100%), Interbolsa (100%), NSD (100%), CDCP SR (100%), Monte Titoli (98.9%), DC (69%)                                               | 15 (37%)    |
| CSD participants (users)                           | EB (100%), EBE (100%), ENL (100%), EFI (100%), EF (100%), ESE (100%), EUI (100%), SIX SIS (95.7%), VP (68%), CSD AD Skopje (54.9%)                                                                                                                                                                        | 10 (24%)    |
| The State (state authorities and/or central banks) | CR HoV (100%), CSE (100%), MSE (100%), SKDD (86.2%), RVP (75%), KDPW (66.6%), KELER (53.3%)                                                                                                                                                                                                               | 7 (17%)     |
| Other (banks, private investors, CCPs)             | VPS (59.33% institutional investors and 40.67% users, MKK (64.9% Takasbank), OeKB CSD (100% owned by a specialised bank, OeKB, partially owned by OeKB CSD participants), KDD (36.3% users, 60.2% private investors, 3.5% others).                                                                        | 4 (7%)      |
| No majority shareholder                            | CDAD (43.7% state, 45.4% users, 6.6% exchange, 4.3% others), CR HoV RS (42.5% users, 33% State, 24.5 % Exchange), NDU (50% state and central bank, 35% users, 10.9% private investors, 4.1% others), LuxCSD (50% central bank, 50% Clearstream), CDA (29% users, 35% central bank, 36% private investors) | 5 (15%)     |

When **trading venues** are shareholders in a CSD, it is usually as full owners, and often as part of an integrated corporate group including one or more exchange(s), CCPs and CSD(s). Among the 41 ECSDA members:

- twelve CSDs are fully owned by an exchange;
- two CSDs are majority-owned by an exchange;
- Exchanges hold minority stakes in five CSDs (the Hungarian KELER, the Polish KDPW, the Turkish MKK, the Bosnian and Herzegovinian CR HoV RS, the Bulgarian CDAD).

Looking at **user ownership** more in detail, it appears that:

- the seven Euroclear (I)CSDs are entirely user-owned;
- one CSD, the Swiss SIX SIS is almost entirely user-owned (95.7 %) but is part of a corporate group, the SIX group, which includes a securities exchange;
- two CSDs are primarily owned by CSD participants (the Danish VP, the F.Y.R. Macedonian CSD AD Skopje);
- An additional ten CSDs have CSD participants as minority shareholders.

**State-owned CSDs** include different variants, from full state ownership to mixed models. In particular:

- three CSDs are fully owned by the State (two of which, the Maltese MSE and the Cyprian CSE are departments of the Stock Exchange, which in turns is fully-owned by the national government);
- four CSDs have the government, the central bank or the ministry of Finance as the majority shareholder (the Hungarian KELER, the Polish KDPW, the Bosnian and Herzegovinian RVP, the Croatian SKDD);

Three CSDs are primarily owned by a selection of **banks or private investors**:

- Norwegian VPS' main shareholders include various national and international financial institutions, including asset management and insurance companies;
- Turkish MKK is majority-owned by Takasbank-Istanbul Settlement and Custody Bank, which offers CCP and other post trade services in the Turkish market;
- In 2015, the CSD activities previously performed by OeKB for the Austrian market were transferred to a new legal entity, OeKB CSD, which is fully owned by OeKB, a specialised bank.

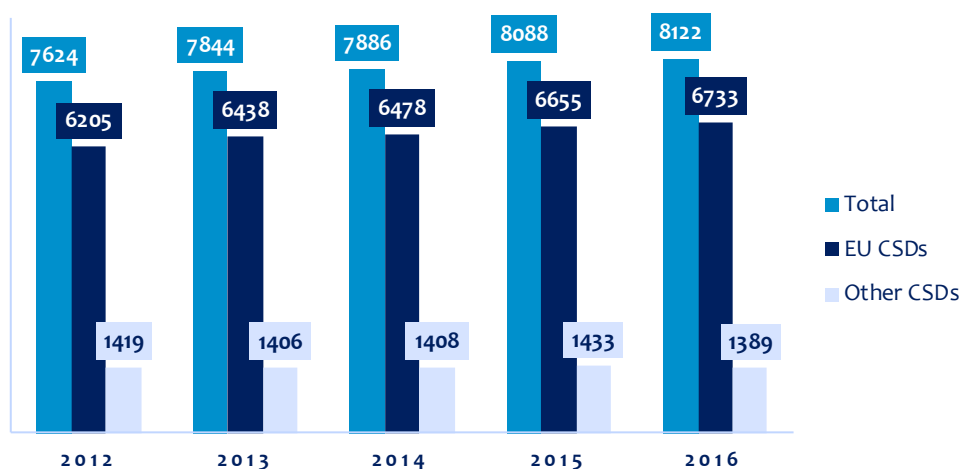
Finally, five CSDs have a hybrid ownership structure with **no single majority shareholder type**.

Irrespective of their ownership models, 95 % of European CSDs operate as for-profit entities. Although frequently, these are *de facto* profit-moderated companies. Only 2 CSDs operate on officially registered as a not-for-profit basis (Cyprian CSE, Polish KDPW) and are fully or partially state-owned.

## Employment

In 2016, ECSDA members collectively employed more than 8,000 people, among which 83 % were employed by CSDs established in the EU. Overall, this represents an increase of 1 % compared to 2015, adding to the slightly upward trend in CSD employment figures since 2010.

**Chart 3: Total number of CSD employees**



Excluding the two ICSDs, the average CSD has slightly more than 100 employees. This illustrates that the CSD business, unlike the retail banking business for example, is more IT-intensive than labour-intensive, and many CSDs indeed qualify as small or medium businesses in their respective countries. The range of the figures is broad. While the smallest CSDs are run by fewer than 10 full-time employees, the largest CSD employed more than 3,000 people. In 2016, the majority of new employees hired by CSDs established in the EEA were hired for positions related to compliance with the CSDR and in IT services.

It is important to note that the data on employees reflects various corporate structures and arrangements, and in cases where the CSD is not a separate entity (e.g. when the CSD is a department of the exchange or when the CSD is part of an integrated corporate group with shared services among the different businesses of the group), the reported figures show the actual number of full-time equivalent staff (FTEs) dedicated to the CSD activity rather than the actual number of employees reported in the financial statements of the corporate entity.

### III. CSD participants

#### Participants

CSD participants are typically wholesale financial firms. If the two ICSDs and globeSettle are excluded, European CSDs had on average around 101 participants as of end 2016, a relatively stable but slightly declining number.

The number of participants is largely dependent on the market organisation and the definition of the term “participant”. Therefore, the figures cannot be compared in a meaningful way without taking these elements into account. However, it ranges from 20 or less (for ten CSDs) to 250 or more (four CSDs, in addition to the two ICSDs). The two ICSDs have more than 1,300 participants each. Excluding them, the CSD with the highest number of participants are the UK and Irish EUI (with 234 participants), the Ukrainian NDU (with 263), the German CBF (with 270), the Swiss SIX SIS (with 327) and the Russian NSD with 844 participants.

**Chart 4. Proportion of non-domestic participants per CSD**

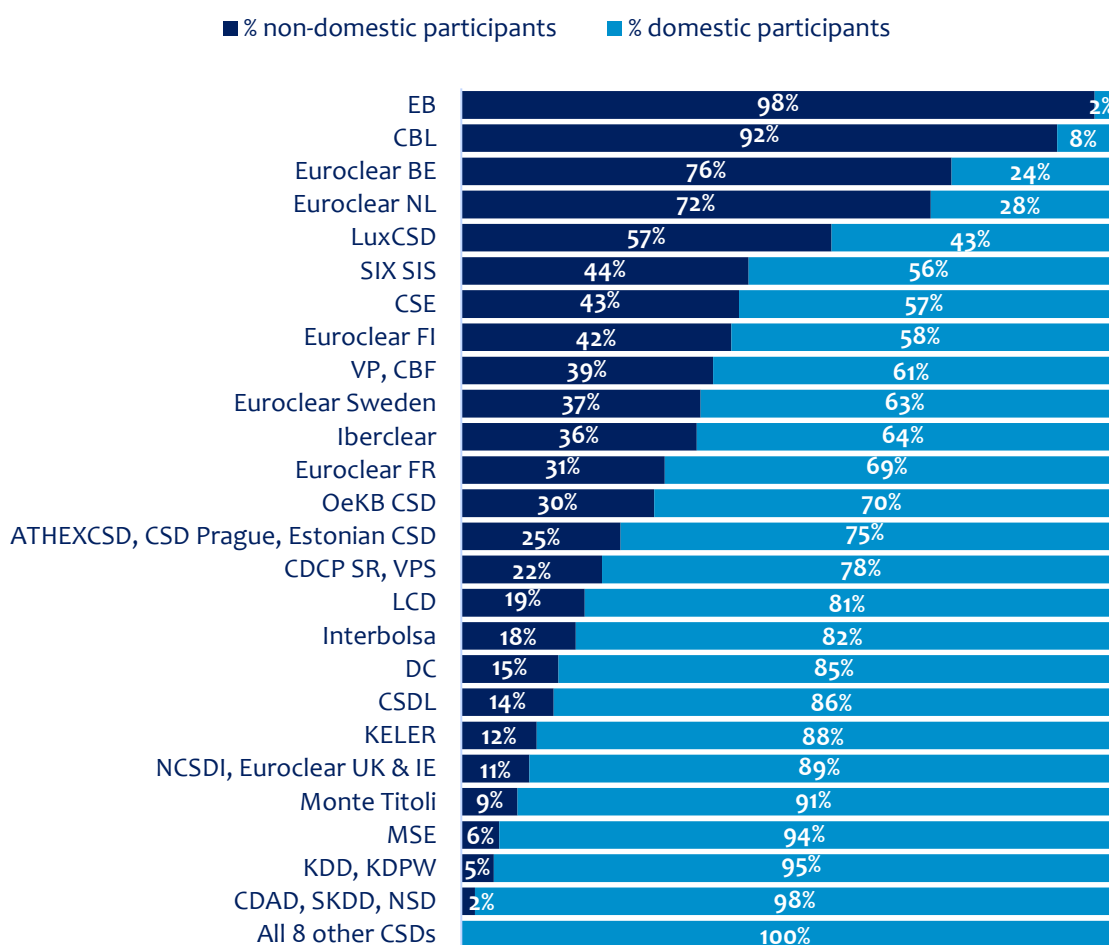


Chart 4 reveals important differences regarding the balance between domestic and non-domestic participants. On average, leaving the ICSDs aside (since they are by nature not operating in a domestic environment), 19 % of participants at European CSDs were non-domestic ones in 2016. This figure is quite stable. Interestingly, CSDs operating in small countries within the EU tend to have a higher share of non-domestic participants than CSDs operating in larger markets and outside the EU. The level of regional economic proximity (e.g. Benelux, Nordics) is also a factor explaining a high proportion of non-domestic participants.

The CSDs with the highest proportion of foreign participants in 2016 (excluding the ICSDs) were Euroclear Belgium (76 %) and Euroclear Nederland (72 %). On the other hand, fifteen ECSDA members had fewer than 10 % of foreign participants, and eight CSDs had exclusively domestic institutions as participants. However, in previous years, there seems to be a trend for CSDs in the more domestically-focused markets to attract more foreign institutions as participants. ECSDA will continue to monitor trends resulting from the ECB T2S project. The project allows CSD participants to access the securities in another T2S CSD in a fully infrastructure environment and without opening an additional account. This could result in a decreasing number of non-domestic CSD participants in T2S CSDs.

## CSD account structures

Frequently it is mostly wholesale financial institutions that are typically eligible to have an account with the CSD. In some cases, however, CSDs maintain end investor accounts in their books as well. In these so-called “direct holding markets”, end investor accounts serve to record the ownership rights directly at the level of the CSD and are managed through the intermediation of CSD participants (acting as account operators). In contrast, in the “indirect holding model”, end investor accounts serving for proof of ownership rights are maintained at a lower level in the securities holding chain, e.g. at the level of the CSD participant.

ECSDA members typically allow their users to segregate client assets in a flexible way, but they do not always have direct access to information on the identity of end investors, which is kept by the relevant intermediary (or intermediaries) with which the investor has a contractual relationship. For EEA countries, based on the CSDR, the clients of CSD participants have a choice between a fully segregated account at the level of CSD or a common account for all CSD participant clients’ assets (separated from the own CSD participant assets)<sup>6</sup>.

**The total number of securities accounts held at European CSDs in 2016 was around 83.7 million. It is almost 400 000 accounts more than the previous year.** There are however great variations at the level of individual CSDs, depending on the maturity of the CSD, the number of end-investors in the market and whether end-investor accounts are commonly used or not, etc. CSDs with the highest number of securities accounts are the Turkish MKK with an impressive figure of 46 million accounts, the Romanian DC, the Serbian CR HoV, the Danish VP and the Swedish ESE. Excluding globeSettle, the CSDs with the lowest number of accounts are LuxCSD with 18 accounts, the Spanish Iberclear, Ukrainian NDU, Euroclear Belgium and Euroclear Nederland.

<sup>6</sup> Article 38 of CSDR, [EU Regulation 909/2014](#), allows for such a choice.

## IV. Specific services and instruments

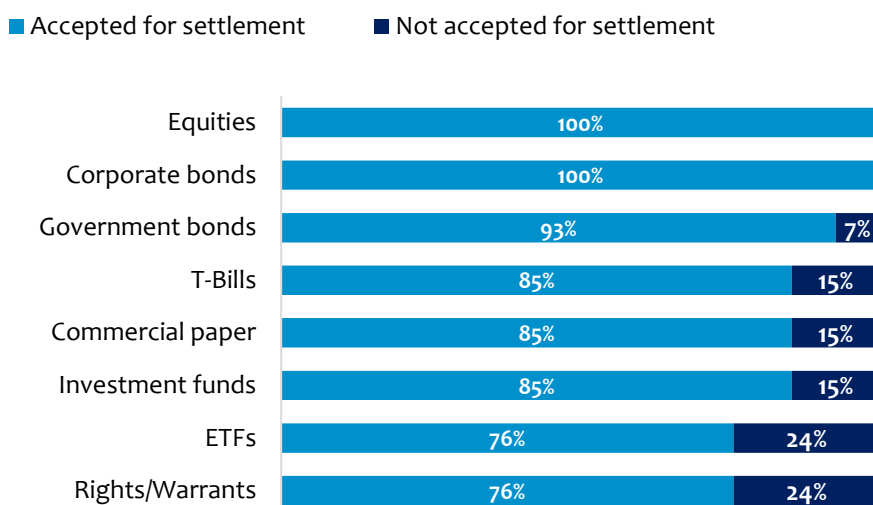
### Financial instruments accepted for settlement

CSDs accept a wide variety of financial instruments for deposit and/or settlement. All European CSDs settle equities and, with one exception, they all settle corporate bonds. A significant majority of CSDs settle government securities (government bonds and Treasury bills). In those markets where government securities are not settled by the CSD, it is usually because there is a dedicated securities settlement system for such securities operated by the central bank. For Treasury bills for instance, this is the case in Belgium, Bulgaria, the Czech Republic, Poland, Romania and Ukraine.

85 % of CSDs have developed services for investment funds, not only limited to settlement but also for order routing and valuation services. Other instruments often accepted for settlement include Depository Receipts, Eurobonds, cooperative share units, asset-backed securities, other structured products and investment certificates.

Almost all ECSDA members (90 %) are servicing securities issued in other markets and maintain at least one outbound link with another CSD<sup>7</sup>.

**Chart 5. Financial instruments accepted for settlement in European CSDs**



### CSD services

For EEA CSDs, most of their services are explicitly listed in the annex to the CSDR. Any entity that performs at least two of ‘the core CSD services’ (including the settlement of securities transactions and either the central maintenance of securities accounts or the notary service) qualifies as a CSD (and, therefore, shall comply with the CSDR). During 2016, EEA CSDs continued to prepare for the compliance with the CSDR. It will permit authorised CSDs to benefit from ‘the passport’ allowing to provide services within the entire area.

<sup>7</sup> ECSDA [report](#) on CSD links 26/07/2016

In addition to core services, CSDs provide ancillary services that generally include custody, fund order routing, collateral management service, data and information provision and other related activities. As mentioned above, banking services of EEA CSDs are subject to banking regulation as well as to the additional CSDR requirements and a capital add-on. CSDR allows CSDs to provide banking activities that are directly related to the non-banking CSD activities only. This *de facto* limits EEA CSD licence and risk profile.

Most European CSDs (32 out of 41) act as national numbering agencies (NNAs), which means that they are responsible for allocating ISIN codes (International Securities Identification Numbers) to new securities. This function reflects the central role played by CSDs in financial markets and in the issuance process in particular.

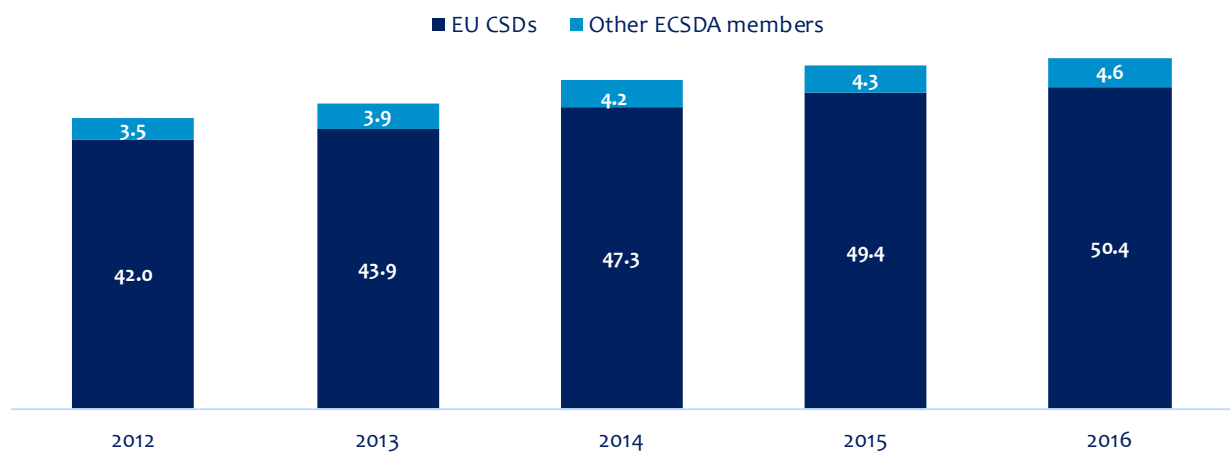
Six CSDs (the Czech CSD Prague, LuxCSD, the Slovenian KDD, the Polish KDPW, the Russian NSD and the Slovak CDCP SR) are also authorised to allocate Legal Entity Identifiers (LEIs) in their market. The global LEI initiative aims to allow for the identification, not of financial instruments, but of financial counterparties to securities and derivatives transactions. This year the Slovenian KDD has started issuing LEIs for the Slovenian market. More details can be found on the website of the Global LEI Foundation at: [www.gleif.org](http://www.gleif.org).

## V. Securities and transactions

### Securities held in CSDs

During the last year, the total value of all securities held at ECSDA member CSDs increased by 2.3%, adding to the upward trend continuing for five years in a row. Over the past five years, more than EUR 9 trillion worth of securities were added in accounts held at European CSDs.

**Chart 6: Total value of securities held on CSD accounts (in EUR trillion)**

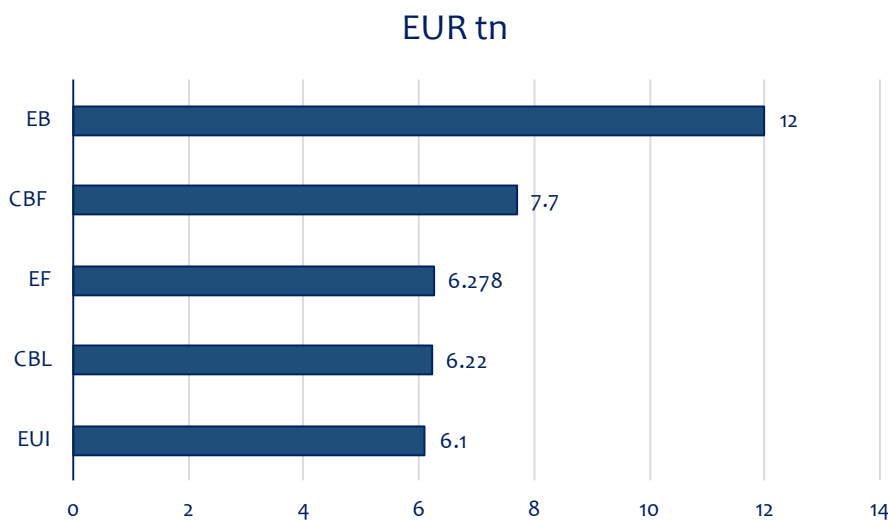


European CSDs collectively held client securities worth almost **EUR 55 trillion**. EU CSDs represent about 92 % of this amount, with EUR 50.4 trillion.

In ten CSDs, the total value of securities held on accounts is less than EUR 15 billion.<sup>11</sup> CSDs hold more than EUR 1 trillion (with an average for EU CSD being EUR 1.1 trillion).

The five largest ECSDA members hold more than EUR 6 trillion each.

**Chart 7: Holdings of the five largest ECSDA members (in EUR trillion)**



## Delivery instructions

Both the number and value of securities deliveries have slightly decreased since the previous year. It is a second year in a row when we notice this trend.

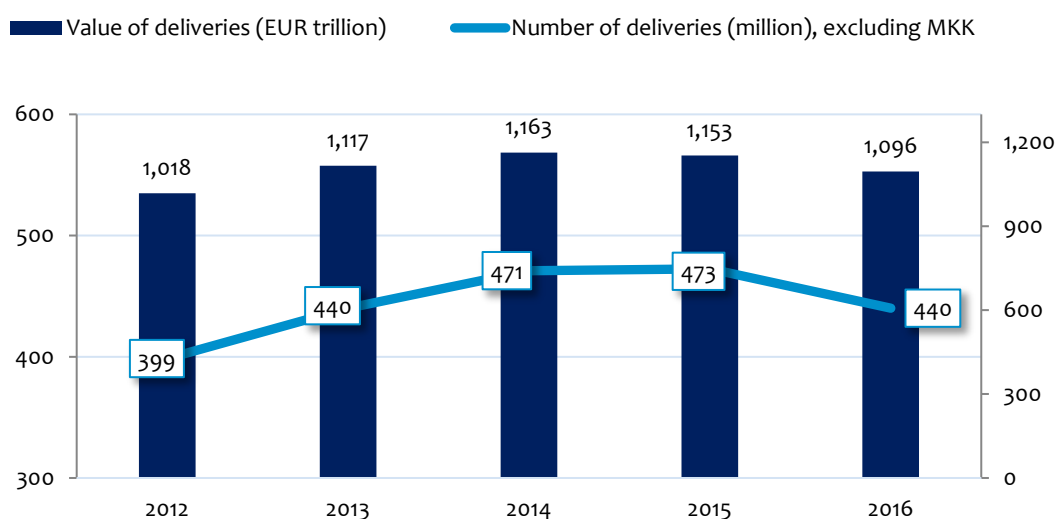
### Number of deliveries

In 2016, European CSDs collectively processed around **600 million** delivery instructions (see Chart 8). More than 1/4 of these deliveries (27 %) were processed by MKK, the Turkish CSD, which maintains more than 46 million securities accounts. The average number of deliveries at European CSDs amounted to **15 million**. This translates into an average of 59 thousand instructions per day of operation<sup>8</sup>.

### Value of deliveries

In terms of value, the delivery instructions processed annually by European CSDs represent **EUR 1.09 quadrillion**, down by a little less than 5 % compared to 2015. Three CSDs account for 72 % of this amount: EB, EF, and EUI. In 2016, the average European CSDs processes deliveries worth more than EUR 26 trillion.

**Chart 8: Delivery instructions processed by ECSDA members**



Looking at the 29 EU CSDs only<sup>9</sup>, 355 million securities deliveries were processed in 2016, worth EUR 1.07 quadrillion. Excluding the ICSDs, this translates into an average of EUR 20 trillion worth of deliveries per CSD.

Lastly, based on these figures, the average ticket size of a single delivery instruction was around EUR 2.4 million (excluding the Turkish MKK).

## New issues and redemptions

Until 2013, ECSDA collected data on newly issued and redeemed securities based on the nominal value of the securities. Nominal values are however not always available or meaningful for financial instruments like equities. As a result, since 2014, ECSDA collects information on the number of new issues and

<sup>8</sup> Assuming 255 days of operation per year.

<sup>9</sup> In 2016, globeSettle did not yet have transaction data to report.

redemptions, i.e. the number of new ISIN codes entered into or deleted from CSD systems, irrespective of the nominal or market value of the securities.

By December 2016, ECSDA members collectively accepted more than 4.99 million new ISINs. The number of redemptions was 4.569 million.

37 CSDs also provided data on issuers, i.e. the entities responsible for issuing the securities recorded in CSD systems. As of 31 December 2016, the total number of issuers (excluding ICSDs) was 50 615, which is an average of 1 368 issuers per CSD.



## Section B: Individual factsheets

*This section of the report contains factsheets on each ECSDA member organisation.  
Unless otherwise specified, all information provided is valid as at 31 December 2016.*



## Basic information

- ✓ Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1 (OTC transactions)
- Model 2
- ✓ Model 3 (Exchange transactions)

## Users

Securities accounts: 678

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 84

■ Domestic ■ Non-domestic

70%

30%

## Services

Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA\*
- ✓ LEI\*

\* provided by OeKB AG

## Corporate information

For profit

34 employees (34 FTEs)

CSD ownership:

■ Other

100%

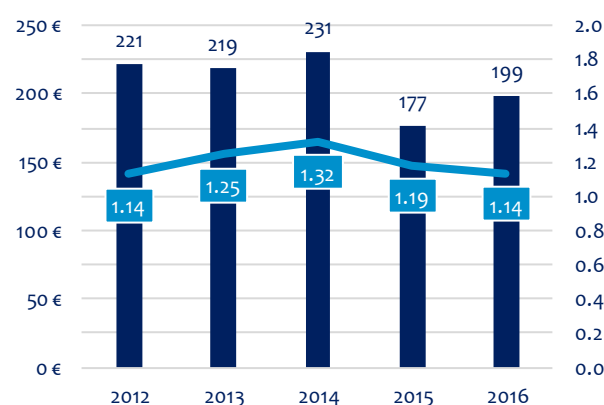
OeKB CSD is owned by Oesterreichische Kontrollbank AG,  
partially owned by OeKB CSD participants.

## Securities transactions 2016

|                                                    |         |
|----------------------------------------------------|---------|
| New issues**                                       | 1,491   |
| Redemptions**                                      | 1,412   |
| Value of securities held on accounts (EUR million) | 559,256 |
| Value of deliveries (EUR million)                  | 198,695 |
| Number of deliveries (thousands)                   | 1,138   |

\*\* New issues/redemptions only includes bonds, short  
term papers and equity

■ Value of deliveries (billion €) — Number of deliveries (millions)





## Central Registry of Securities JSC Banja Luka (CR HoV RS)

BA

Centralni registar hartija od vrijednosti a.d. Banja Luka, Sime  
Šolaje 1, 78000 Banja Luka, Republic of Srpska  
Bosnia and Herzegovina  
[www.crhovrs.org](http://www.crhovrs.org) – Annual report

### Basic information

- Banking license
- Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

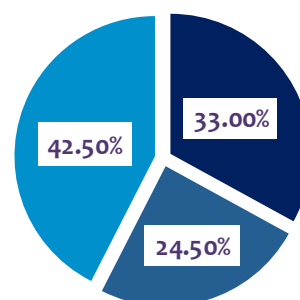
- ✓ Model 1 (Money market transactions & block transactions)
- ✓ Model 2 (Exchange transactions)
- Model 3

### Corporate information

For profit  
29 employees (28.5 FTEs)

CSD ownership:

- State authorities
- Trading venue
- CSD participants



### Users

Securities accounts: 1,263,514

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 10

■ Domestic ■ Non-domestic

100%

### Securities transactions 2016

|                                                    |       |
|----------------------------------------------------|-------|
| New issues                                         | 27    |
| Redemptions                                        | 47    |
| Value of securities held on accounts (EUR million) | 6,647 |
| Value of deliveries (EUR million)                  | 81    |
| Number of deliveries (thousands)                   | 19    |

### Services

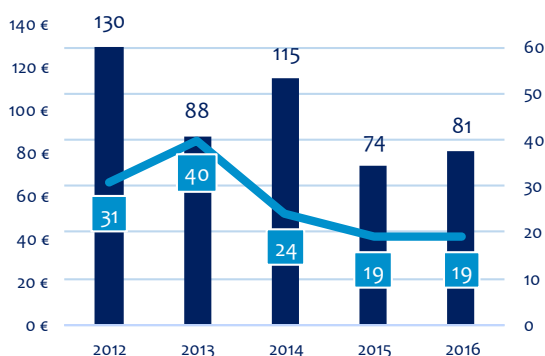
Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA
- LEI

■ Value of deliveries (million €) — Number of deliveries (thousands)





## Registry of Securities Sarajevo (RVP)

BA

Registar vrijednosnih papira u Federaciji Bosne i Hercegovine,  
Maršala Tita 62/II, 71000 Sarajevo, Bosnia and Herzegovina  
[www.rvp.ba](http://www.rvp.ba) – Annual report

### Basic information

- Banking license
- Designated SSS
- Eurosystem eligible SSS
- T2S

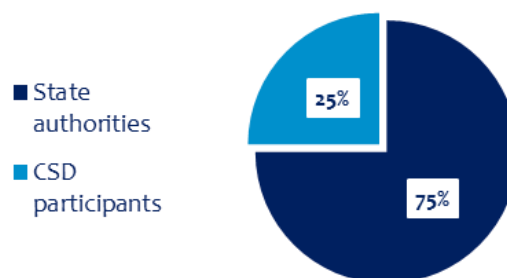
BIS settlement model:

- ✓ Model 1 (T-bills)
- ✓ Model 2 (Exchange transactions)
- Model 3

### Corporate information

For profit  
28 employees (28 FTEs)

CSD ownership:



### Users

Securities accounts: 672,755

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 12

■ Domestic ■ Non-domestic

100%

### Securities transactions 2016

|                                                    |       |
|----------------------------------------------------|-------|
| New issues                                         | 28    |
| Redemptions                                        | 55    |
| Value of securities held on accounts (EUR million) | 6,323 |
| Value of deliveries (EUR million)                  | 206   |
| Number of deliveries (thousands)                   | 38    |

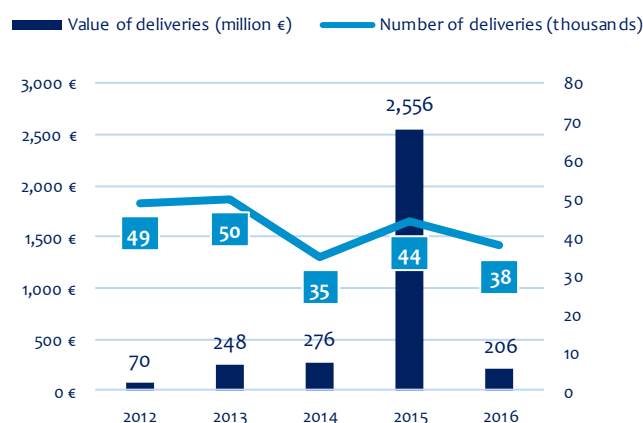
### Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA
- LEI





## Euroclear Bank

Euroclear Bank, 1 Boulevard du Roi Albert II,  
1210 Brussels, Belgium  
[www.euroclear.com](http://www.euroclear.com) – Annual report

BE

### Basic information

- ✓ Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- T2S

BIS settlement model:

- ✓ Model 1
- Model 2
- Model 3

### Users

Securities accounts: 27,513

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 1,617

■ Domestic ■ Non-domestic

2%

98%

### Services

Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Depositary Receipts

Other services:

- ✓ NNA
- LEI

### Corporate information

For profit

3,020 employees (2,929 FTEs)

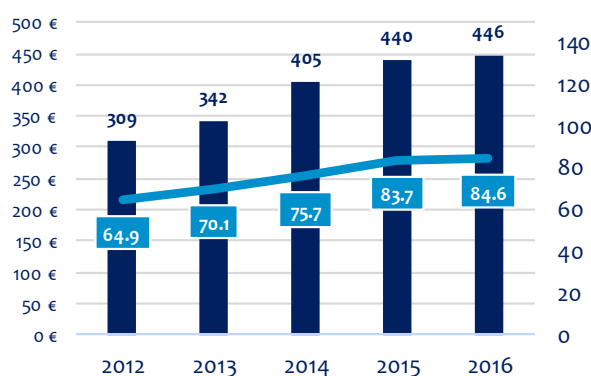
CSD ownership:



### Securities transactions 2016

|                                                    |             |
|----------------------------------------------------|-------------|
| New issues                                         | 284,795     |
| Redemptions                                        | 547,480     |
| Value of securities held on accounts (EUR million) | 12,641,026  |
| Value of deliveries (EUR million)                  | 445,980,569 |
| Number of deliveries (thousands)                   | 84,550      |

■ Value of deliveries (trillion €) — Number of deliveries (millions)





## Euroclear Belgium

Euroclear Belgium, 1 Boulevard du Roi Albert II,  
1210 Brussels, Belgium  
[www.euroclear.com](http://www.euroclear.com) – Annual report

BE

### Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

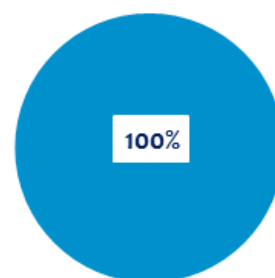
- ✓ Model 1
- Model 2
- Model 3

### Corporate information

For profit  
29 employees (27 FTEs)

CSD ownership:

■ CSD participants



### Users

Securities accounts: 518

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 74

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |         |
|----------------------------------------------------|---------|
| New issues                                         | 1,657   |
| Redemptions                                        | 1,695   |
| Value of securities held on accounts (EUR million) | 237,006 |
| Value of deliveries (EUR million)                  | 958,277 |
| Number of deliveries (thousands)                   | 2,377   |

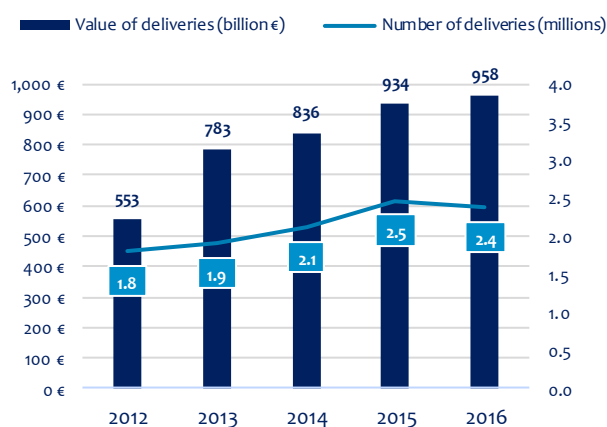
### Services

Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- Government bonds
- ✓ Corporate bonds
- Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: VVPR strips

Other services:

- NNA
- LEI





## Central Depository AD (CDAD)

Central Depository AD, 6 Tri Ushi Str., 1000 Sofia,  
Bulgaria  
[www.csd-bg.bg](http://www.csd-bg.bg) – Annual report

BG

### Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- Model 1
- ✓ Model 2
- Model 3

### Users

Securities accounts: 2,912,649

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 95

■ Domestic ■ Non-domestic



### Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ETFs
- Government bonds
- ✓ Corporate bonds
- Treasury bills
- Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Compensatory instruments

Other services:

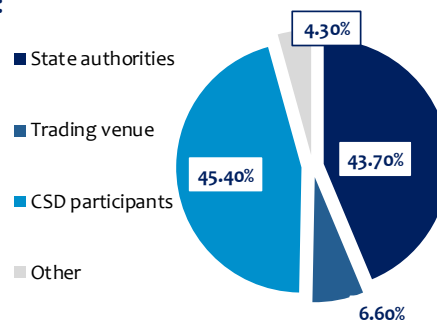
- ✓ NNA
- LEI

### Corporate information

For profit

27 employees (26 FTEs)

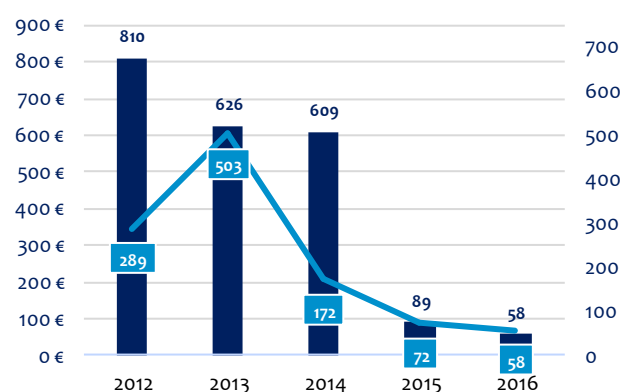
CSD ownership:



### Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 59     |
| Redemptions                                        | 64     |
| Value of securities held on accounts (EUR million) | 33,638 |
| Value of deliveries (EUR million)                  | 58     |
| Number of deliveries (thousands)                   | 58     |

■ Value of deliveries (million €) — Number of deliveries (thousands)



## Basic information

- ✓ Banking license
- Designated SSS (under EU SFD)
- Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1
- Model 2
- Model 3

## Users

Securities accounts: 28,384

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 327

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

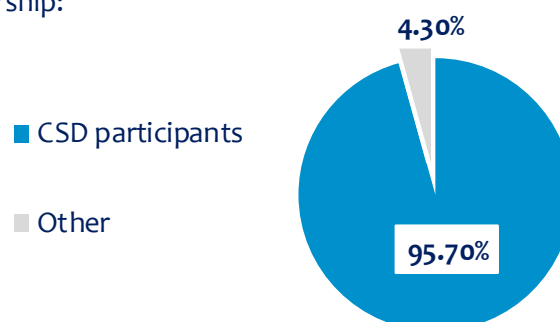
- ✓ NNA
- LEI

## Corporate information

For profit

336 employees (319 FTEs)

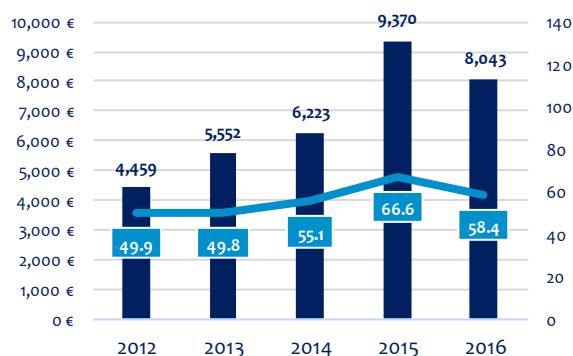
CSD ownership:



## Securities transactions 2016

|                                                    |           |
|----------------------------------------------------|-----------|
| New issues                                         | 245,240   |
| Redemptions                                        | 223,716   |
| Value of securities held on accounts (EUR million) | 2,886,626 |
| Value of deliveries (EUR million)                  | 8,043,107 |
| Number of deliveries (thousands)                   | 58,424    |

■ Value of deliveries (billion €) — Number of deliveries (millions)





## Cyprus Stock Exchange (CSE)

CY

Cyprus Stock Exchange, 71-73 Lordou Vironos Avenue,  
1096 Nicosia, Cyprus  
[www.cse.com.cy](http://www.cse.com.cy) – Annual report

### Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- T2S

BIS settlement model:

- ✓ Model 1 (OTC transactions)
- ✓ Model 2 (Exchange transactions)
- Model 3

### Corporate information

Not for profit  
18 employees (18 FTEs)

CSD ownership:

■ State authorities



### Users

Securities accounts: 339,396

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 35

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |       |
|----------------------------------------------------|-------|
| New issues                                         | 68    |
| Redemptions                                        | 60    |
| Value of securities held on accounts (EUR million) | 8,303 |
| Value of deliveries (EUR million)                  | 2,394 |
| Number of deliveries (thousands)                   | 37    |

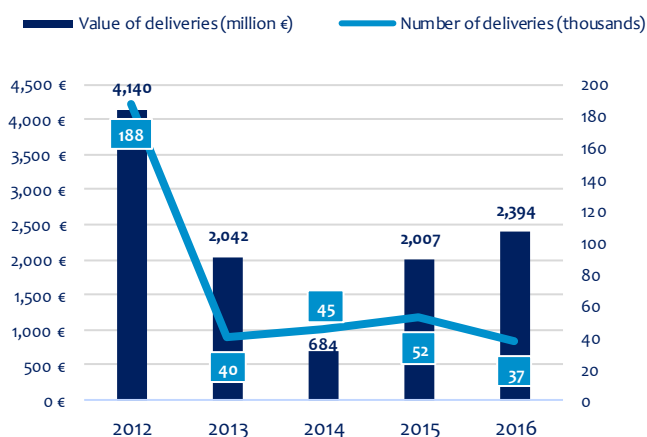
### Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: GDRs, Depository Interests (DI's)

Other services:

- ✓ NNA - LEI



Centrální depozitář cenných papírů, a.s., Rybná 14,  
110 05 Prague, Czech Republic  
[www.cdcp.cz](http://www.cdcp.cz) – Annual report

## Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- Model 1
- ✓ Model 2
- Model 3

## Users

Securities accounts: 1,365,311

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 28

■ Domestic ■ Non-domestic

75%

25%

## Services

Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- Treasury bills
- Commercial paper
- Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA
- ✓ LEI

## Corporate information

For profit

46 employees (39 FTEs)

CSD ownership:

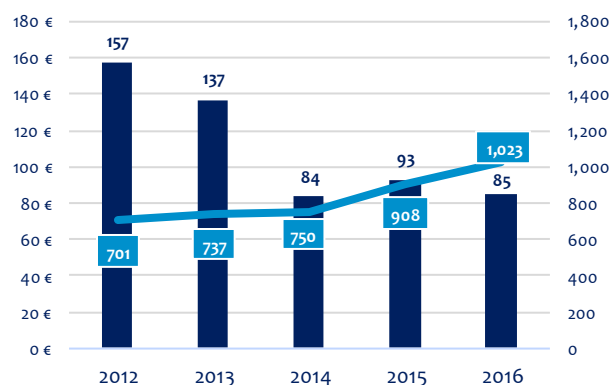
■ Trading venue

100%

## Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 824    |
| Redemptions                                        | 192    |
| Value of securities held on accounts (EUR million) | 81,505 |
| Value of deliveries (EUR million)                  | 85,226 |
| Number of deliveries (thousands)                   | 1,023  |

■ Value of deliveries (billion €) — Number of deliveries (thousands)



Clearstream Banking AG, Mergenthalerallee 61,  
65760 Eschborn, Germany  
[www.clearstream.com](http://www.clearstream.com) – Annual report

## Basic information

- ✓ Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

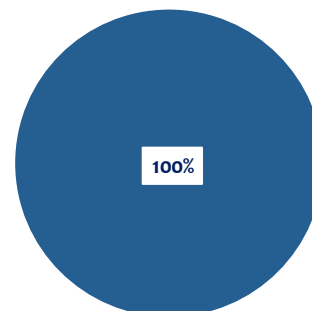
BIS settlement model:

- ✓ Model 1
- Model 2
- Model 3

## Corporate information

For profit  
344 employees (320 FTEs)  
CSD ownership:

■ Trading venue



## Users

Securities accounts: 1,365,311

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 270

■ Domestic ■ Non-domestic



## Securities transactions 2016

|                                                    |            |
|----------------------------------------------------|------------|
| New issues                                         | 4,047,826  |
| Redemptions                                        | 3,436,792  |
| Value of securities held on accounts (EUR million) | 7,719,215  |
| Value of deliveries (EUR million)                  | 46,578,206 |
| Number of deliveries (thousands)                   | 56,048     |

## Services

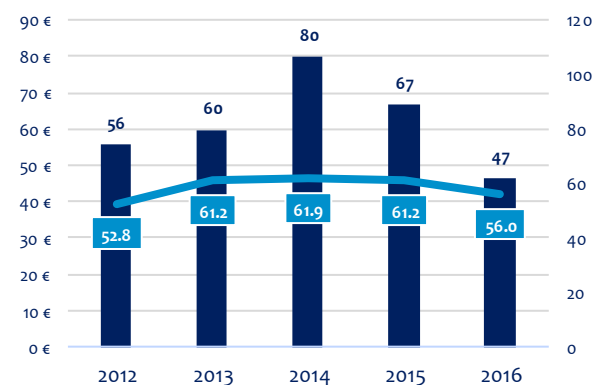
Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- ✓ Emission rights
- Other: -

Other services:

- NNA
- LEI

■ Value of deliveries (trillion €) — Number of deliveries (millions)



## Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- ✓ T2S (EUR from 2016 & DKK from 2018)

BIS settlement model:

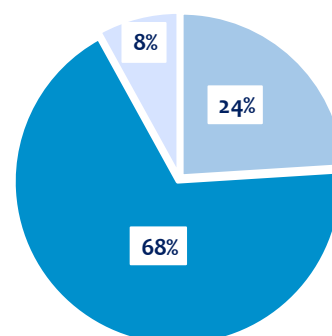
- ✓ Model 1
- Model 2
- ✓ Model 3 (most commonly used)

## Corporate information

For profit  
176 employees (175 FTEs)

CSD ownership:

- Central bank
- CSD participants
- Private investors



## Users

Securities accounts: 3,264,919

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 157

■ Domestic ■ Non-domestic



## Securities transactions 2016

|                                                    |           |
|----------------------------------------------------|-----------|
| New issues                                         | 1,415     |
| Redemptions                                        | 805       |
| Value of securities held on accounts (EUR million) | 1,070,682 |
| Value of deliveries (EUR million)                  | 6,300,070 |
| Number of deliveries (thousands)                   | 16,409    |

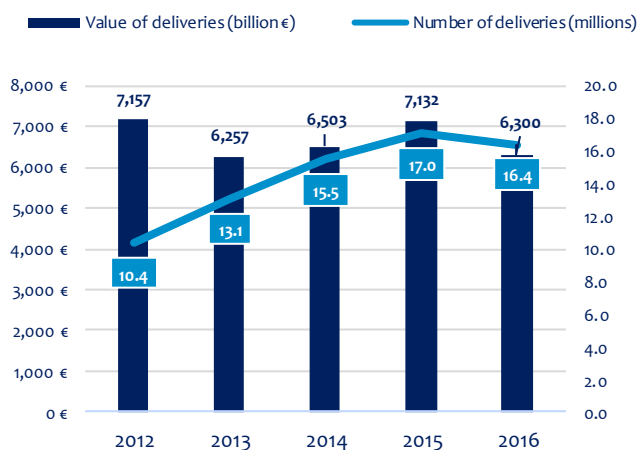
## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Non-tradeable certificates issued by special-purpose UCITS

Other services:

- ✓ NNA
- LEI



## Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1
- Model 2
- Model 3

## Users

Securities accounts: 112,431

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 16

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA - LEI

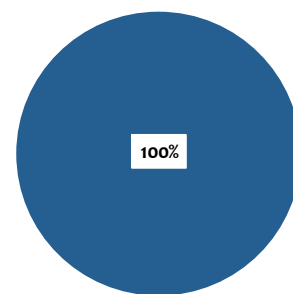
## Corporate information

For profit

21 employees (21 FTEs)

CSD ownership:

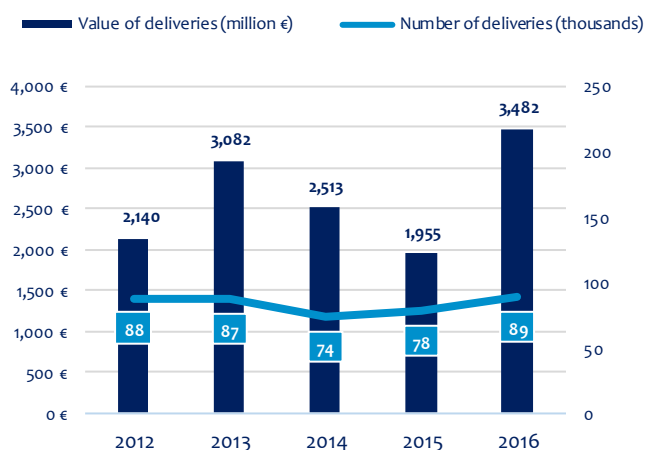
■ Trading venue



100% of shares owned by Nasdaq Nordic Oy, through LCD.  
On 18 September 2017, the Baltic CSDs (ECSD, CSDL and LCD) merged

## Securities transactions 2016

|                                                    |       |
|----------------------------------------------------|-------|
| New issues                                         | 472   |
| Redemptions                                        | 590   |
| Value of securities held on accounts (EUR million) | 8,238 |
| Value of deliveries (EUR million)                  | 3,482 |
| Number of deliveries (thousands)                   | 89    |



Sociedad de Gestión de los Sistemas de Registro,  
Compensación y Liquidación de Valores, S.A. Unipersonal,  
Plaza de la Lealtad 1, 28014 Madrid, Spain  
[www.iberclear.es](http://www.iberclear.es) - Annual report

## Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1 ARCO platform since 1 May 2016  
(stock exchanges transactions must be cleared by a CCP)
- Model 2
- Model 3

## Users

Securities accounts: 311

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 132

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- NNA - LEI

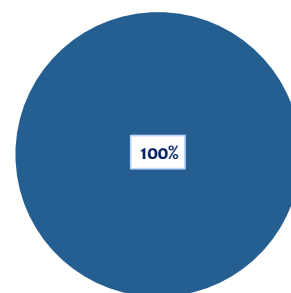
## Corporate information

For profit

117 employees (117 FTEs)

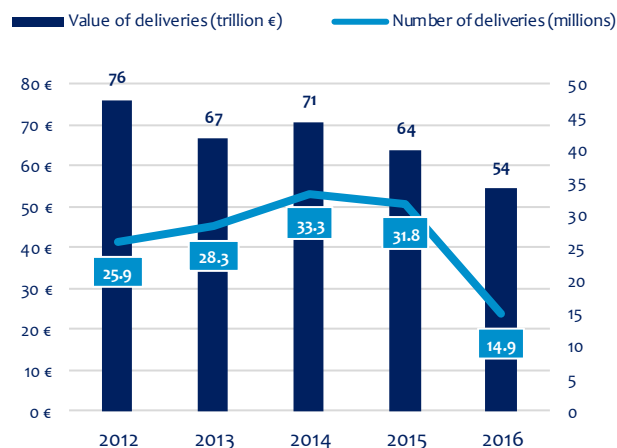
CSD ownership:

■ Trading venue



## Securities transactions 2016

|                                                    |            |
|----------------------------------------------------|------------|
| New issues                                         | 9100       |
| Redemptions                                        | 6008       |
| Value of securities held on accounts (EUR million) | 2,259,847  |
| Value of deliveries (EUR million)                  | 54,466,974 |
| Number of deliveries (thousands)                   | 14,906     |





## Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

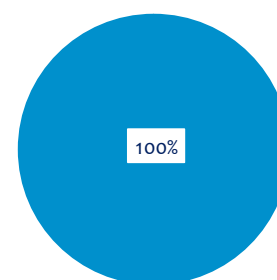
- ✓ Model 1
- Model 2
- Model 3

## Corporate information

For profit  
103 employees (92.6 FTEs)

CSD ownership:

■ CSD participants



## Users

Securities accounts: 1,396,811

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 24

■ Domestic ■ Non-domestic



## Securities transactions 2016

|                                                    |         |
|----------------------------------------------------|---------|
| New issues                                         | 9,427   |
| Redemptions                                        | 8,543   |
| Value of securities held on accounts (EUR million) | 339,973 |
| Value of deliveries (EUR million)                  | 583,179 |
| Number of deliveries (thousands)                   | 7,087   |

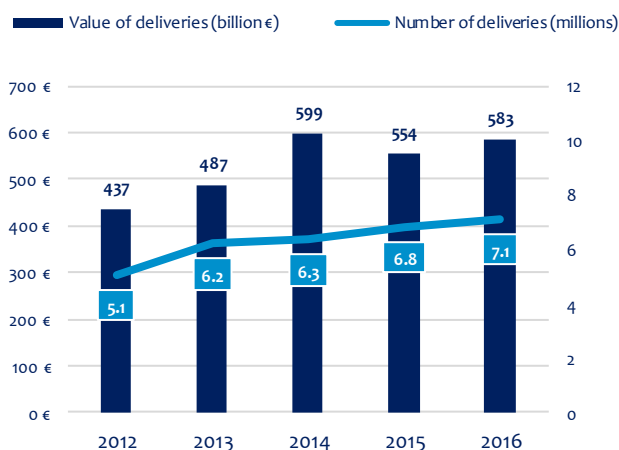
## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Finnish Depositary Receipts (FDR)

Other services:

- ✓ NNA - LEI





## Euroclear France

Euroclear France, 66, rue de la Victoire,  
75009 Paris, France  
[www.euroclear.com](http://www.euroclear.com) – Annual report

FR

### Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

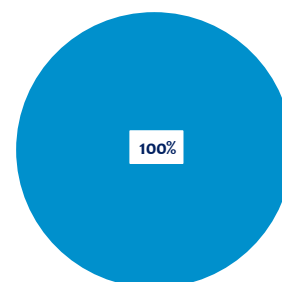
BIS settlement model:

- ✓ Model 1
- Model 2
- Model 3

### Corporate information

For profit  
324 employees (311 FTEs)  
CSD ownership:

■ CSD participants



### Users

Securities accounts: 922

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 137

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |             |
|----------------------------------------------------|-------------|
| New issues                                         | 164,094     |
| Redemptions                                        | 157,504     |
| Value of securities held on accounts (EUR million) | 6,278,449   |
| Value of deliveries (EUR million)                  | 103,286,008 |
| Number of deliveries (thousands)                   | 25,562      |

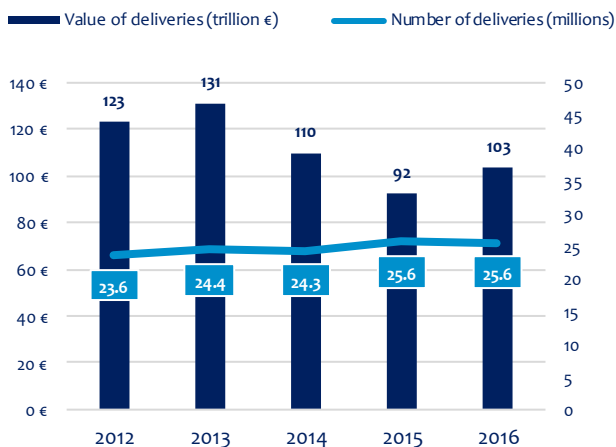
### Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA - LEI





## ATHEXCSD

GR

Hellenic Central Securities Depository SA,  
110 Athinon Avenue, 104 42 Athens, Greece  
[www.helex.com/athexcsd](http://www.helex.com/athexcsd) - Annual report

### Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- T2S

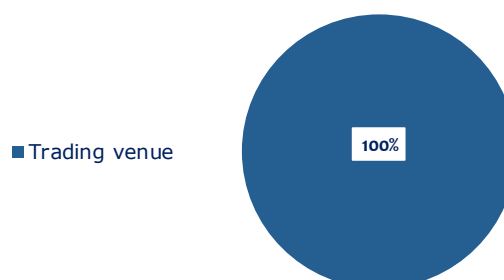
BIS settlement model:

- ✓ Model 1 (beneficiary account level)
- ✓ Model 2
- Model 3

### Corporate information

For profit  
104 employees (104 FTEs)

CSD ownership:



### Users

Securities accounts: 1,321,448

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 61

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 5      |
| Redemptions                                        | 26     |
| Value of securities held on accounts (EUR million) | 45,866 |
| Value of deliveries (EUR million)                  | 32,918 |
| Number of deliveries (thousands)                   | 4,859  |

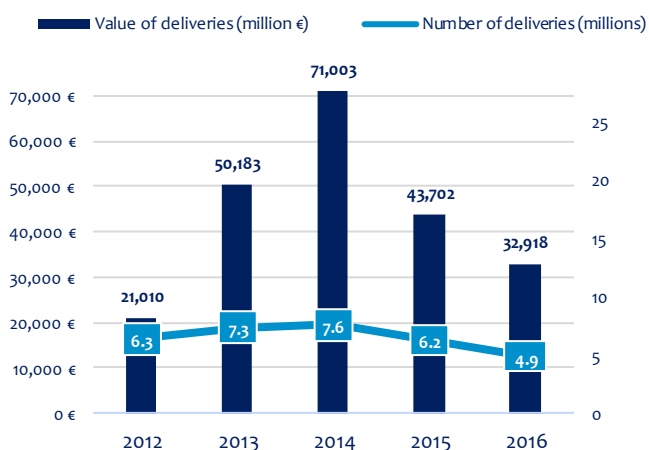
### Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Hellenic Depository Receipts, Structured products

Other services:

- ✓ NNA - LEI





# Central Depository & Clearing Company Inc. (SKDD)

HR

Središnje klirinško deponitarno društvo d.d.,  
Heinzelova 62a, 10000 Zagreb, Croatia  
[www.skdd.hr](http://www.skdd.hr) - Annual report

## Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

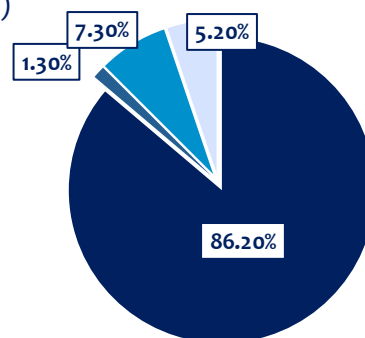
- ✓ Model 1 (« trade-for-trade » service)
- Model 2
- ✓ Model 3 (contractual service)

## Corporate information

For profit  
45 employees (45 FTEs)

CSD ownership:

- State authorities
- Trading venue
- CSD participants
- Private investors



## Users

Securities accounts: 881,191

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

■ Domestic ■ Non-domestic



## Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 82     |
| Redemptions                                        | 189    |
| Value of securities held on accounts (EUR million) | 55,077 |
| Value of deliveries (EUR million)                  | 35,375 |
| Number of deliveries (thousands)                   | 353    |

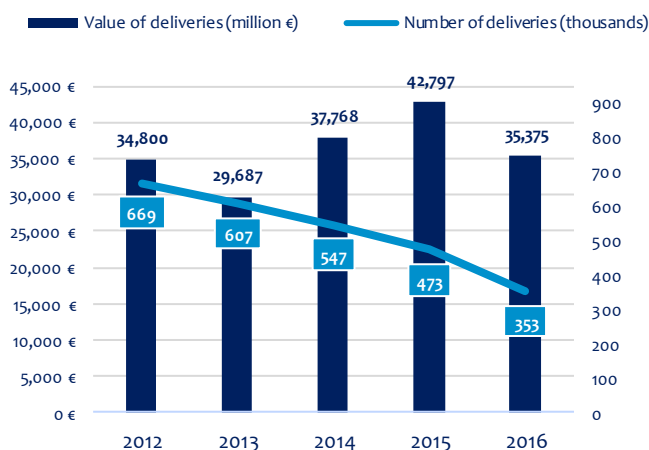
## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- Investment funds
- Warrants and rights
- Emission rights
- ✓ Other: Croatian government rights

Other services:

- ✓ NNA - LEI



## Basic information

- ✓ Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1 (OTC transactions)
- Model 2
- ✓ Model 3 (Exchange transactions)

## Users

Securities accounts: 6,387

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 146

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- Warrants and rights
- ✓ Emission rights
- ✓ Other: Futures, Options, Mortgage Bonds, Capital Bill

Other services:

- ✓ NNA - LEI

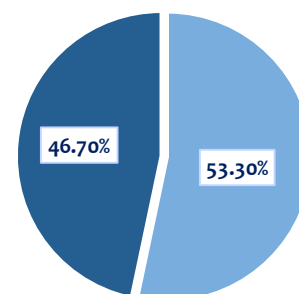
## Corporate information

For profit

142 employees (139.5 FTEs)

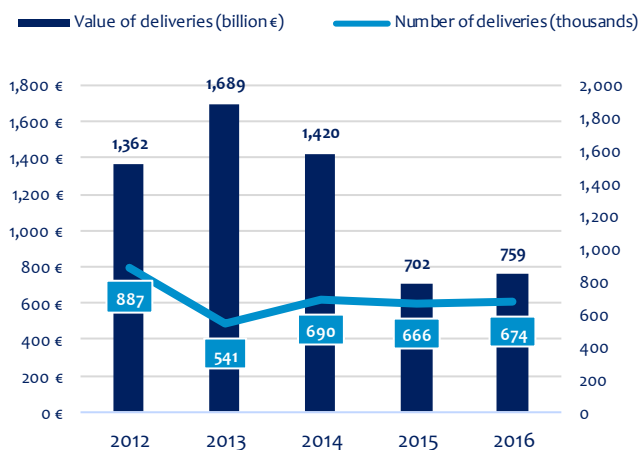
CSD ownership:

■ Central bank  
■ Trading venue



## Securities transactions 2016

|                                                    |         |
|----------------------------------------------------|---------|
| New issues                                         | 37,000  |
| Redemptions                                        | 45,000  |
| Value of securities held on accounts (EUR million) | 100,852 |
| Value of deliveries (EUR million)                  | 758,782 |
| Number of deliveries (thousands)                   | 674     |



## Basic information

- Banking license
- Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- Model 1
- ✓ Model 2
- Model 3

## Users

Securities accounts: 37,722

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 19

■ Domestic ■ Non-domestic

89%

11%

## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA - LEI

## Corporate information

For profit

7 employees (7 FTEs)

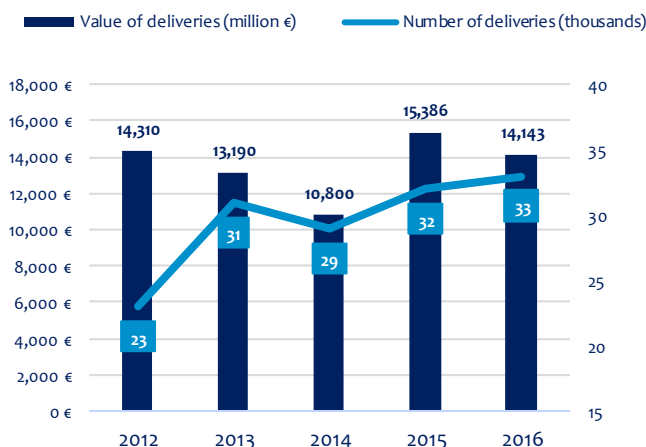
CSD ownership:

■ Trading venue

100%

## Securities transactions 2016

|                                                    |         |
|----------------------------------------------------|---------|
| New issues                                         | 94      |
| Redemptions                                        | 61      |
| Value of securities held on accounts (EUR million) | 279,379 |
| Value of deliveries (EUR million)                  | 14,143  |
| Number of deliveries (thousands)                   | 33      |



## Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

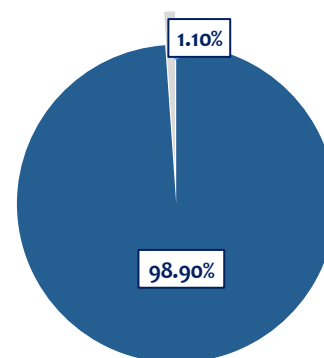
- ✓ Model 1
- Model 2
- Model 3

## Corporate information

For profit  
114 employees (114 FTEs)

CSD ownership:

- Trading venue
- Other



## Users

Securities accounts: 1,085

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 184

- Domestic
- Non-domestic



## Securities transactions 2016

|                                                    |            |
|----------------------------------------------------|------------|
| New issues                                         | 10,000     |
| Redemptions                                        | 13,000     |
| Value of securities held on accounts (EUR million) | 3,175,087  |
| Value of deliveries (EUR million)                  | 66,682,094 |
| Number of deliveries (thousands)                   | 22,234     |

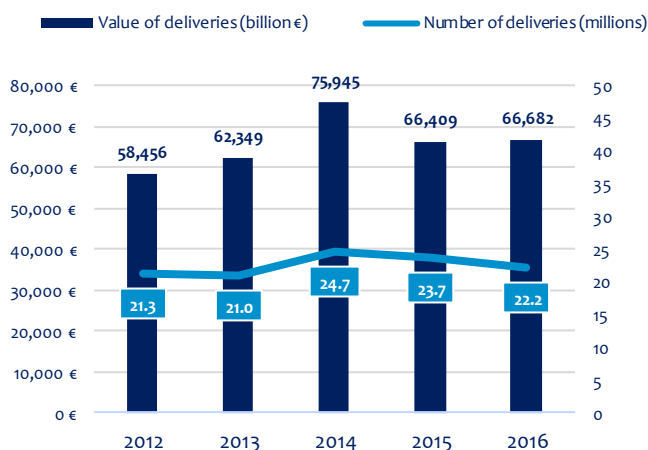
## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Cooperative shares (issued by Italian cooperative banks) and shares with increased voting rights

Other services:

- NNA - LEI



Lietuvos centrinis vertybinių popierių depozitoriumas,  
Konstitucijos avenue 29, 08105 Vilnius, Lithuania  
<https://www.nasdaqcsd.com>- Annual report

## Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1 (OTC transactions)
- ✓ Model 2 (Exchange transactions)
- Model 3

## Users

Securities accounts: 638

End investor accounts at CSDL: No

End investor accounts mandatory: No

Total participants: 21

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA - LEI

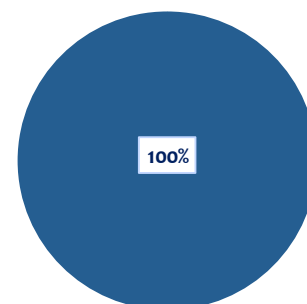
## Corporate information

For profit

17 employees (17 FTEs)

CSD ownership:

■ Trading venue

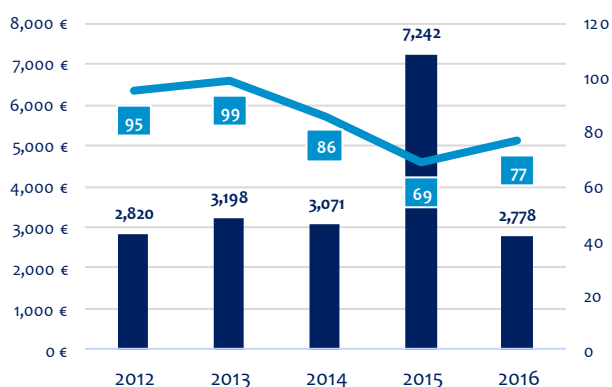


100% of shares owned by Nasdaq Nordic Oy, through LCD.  
On 18 September 2017, the Baltic CSDs (ECSD, CSDL and LCD) merged.

## Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 335    |
| Redemptions                                        | 155    |
| Value of securities held on accounts (EUR million) | 11,036 |
| Value of deliveries (EUR million)                  | 2,778  |
| Number of deliveries (thousands)                   | 77     |

■ Value of deliveries (million €) — Number of deliveries (thousands)



## Basic information

- ✓ Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- T2S

BIS settlement model:

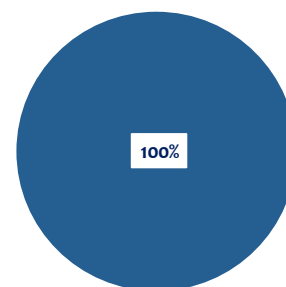
- ✓ Model 1
- Model 2
- Model 3

## Corporate information

For profit  
1,125 employees (1,027 FTEs)

CSD ownership:

■ Trading venue



## Users

Securities accounts: 12,392

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 1,334

■ Domestic ■ Non-domestic



## Securities transactions 2016

|                                                    |            |
|----------------------------------------------------|------------|
| New issues                                         | 83,000     |
| Redemptions                                        | 41,000     |
| Value of securities held on accounts (EUR million) | 6,220,118  |
| Value of deliveries (EUR million)                  | 83,691,712 |
| Number of deliveries (thousands)                   | 25,805     |

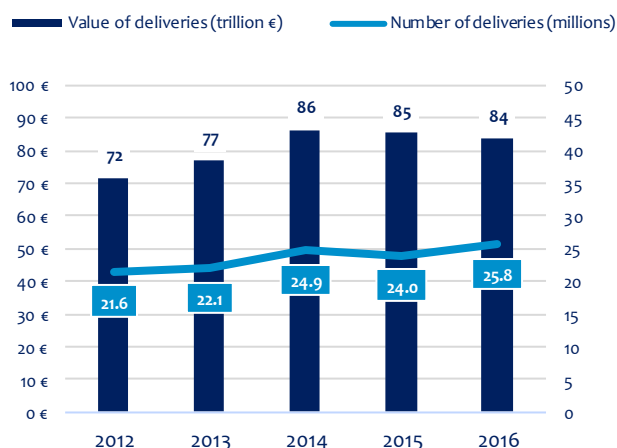
## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- ✓ Emission rights
- Other: -

Other services:

- ✓ NNA
- LEI



## Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- ✓ Model 1
- Model 2
- Model 3

## Users

Securities accounts: n/a

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 1 (non-domestic)

## Services

Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Eurobonds

Other services:

- NNA - LEI

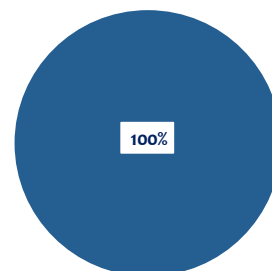
## Corporate information

For profit

9 employees (9 FTEs)

CSD ownership:

■ Trading venue



globeSettle stopped their operations in June 2017

## Securities transactions 2016

Not applicable

## Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1
- Model 2
- Model 3

## Users

Securities accounts: 18

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 14

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

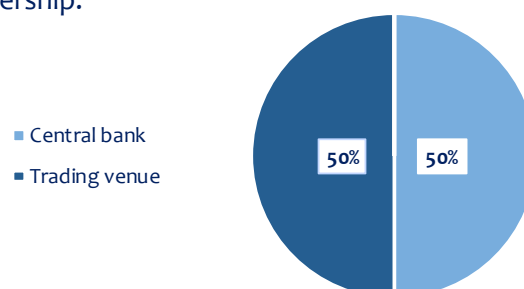
- NNA
- ✓ LEI

## Corporate information

For profit

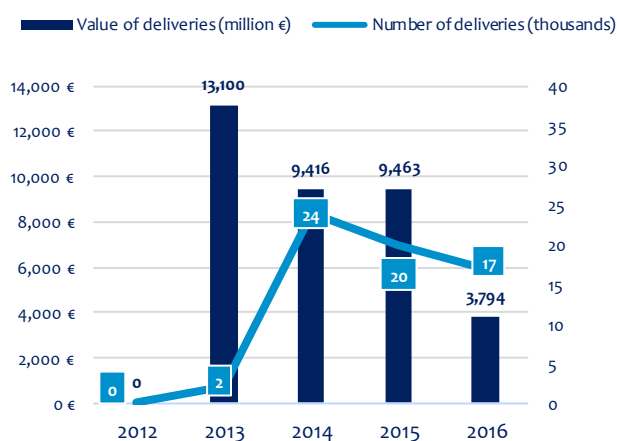
7 employees (5 FTEs)

CSD ownership:



## Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 3      |
| Redemptions                                        | 1      |
| Value of securities held on accounts (EUR million) | 14,975 |
| Value of deliveries (EUR million)                  | 3,794  |
| Number of deliveries (thousands)                   | 17     |



## Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1 (OTC transactions, same day settlement)
- Model 2
- ✓ Model 3

## Users

Securities accounts: 957

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 21

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA - LEI

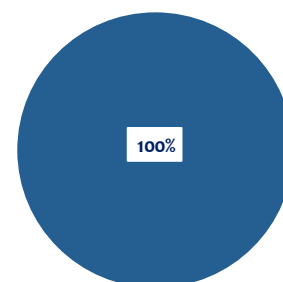
## Corporate information

For profit

19 employees (18 FTEs)

CSD ownership:

■ Trading venue

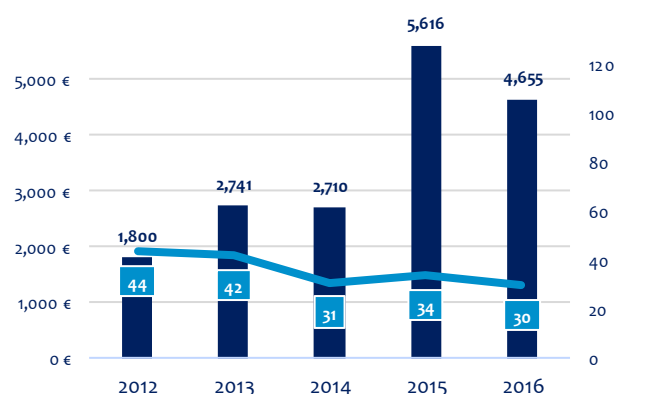


On 18 September 2017, the Baltic CSDs (ECSD, CSDL and LCD) merged

## Securities transactions 2016

|                                                    |       |
|----------------------------------------------------|-------|
| New issues                                         | 31    |
| Redemptions                                        | 38    |
| Value of securities held on accounts (EUR million) | 4,070 |
| Value of deliveries (EUR million)                  | 4,655 |
| Number of deliveries (thousands)                   | 30    |

■ Value of deliveries (million €) ■ Number of deliveries (thousands)





## Basic information

- Banking license
- Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- ✓ Model 1 (default model)
- ✓ Model 2 (under certain conditions)
- Model 3

## Users

Securities accounts: 472,408

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 14

■ Domestic ■ Non-domestic

100%

## Services

Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA - LEI

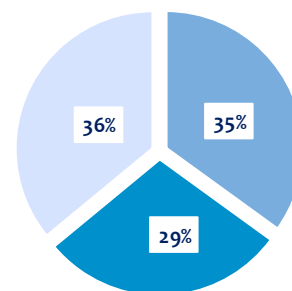
## Corporate information

For profit

15 employees (15 FTEs)

CSD ownership:

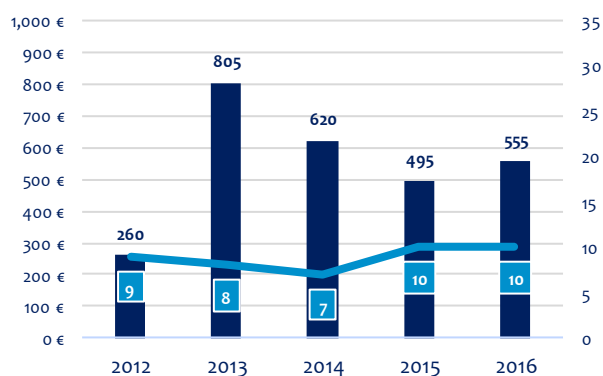
- Central bank
- CSD participants
- Private investors



## Securities transactions 2016

|                                                    |       |
|----------------------------------------------------|-------|
| New issues                                         | 12    |
| Redemptions                                        | 20    |
| Value of securities held on accounts (EUR million) | 5,282 |
| Value of deliveries (EUR million)                  | 555   |
| Number of deliveries (thousands)                   | 10    |

■ Value of deliveries (million €) — Number of deliveries (thousands)





## Central Securities Depository AD Skopje (CSD AD Skopje)

MK

Centralen depozitar za hartii od vrednost AD Skopje, bul.  
Kuzman Josifovski Pitu 1, 1000 Skopje, MK  
[www.cdhv.mk](http://www.cdhv.mk) - Annual report

### Basic information

- Banking license
- Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- ✓ Model 1 (Government securities)
- ✓ Model 2 (OTC transactions)
- Model 3

### Corporate information

For profit  
19 employees (19 FTEs)

CSD ownership:



### Users

Securities accounts: 268,237

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

■ Domestic ■ Non-domestic

100%

### Securities transactions 2016

|                                                    |       |
|----------------------------------------------------|-------|
| New issues                                         | 82    |
| Redemptions                                        | 139   |
| Value of securities held on accounts (EUR million) | 4,899 |
| Value of deliveries (EUR million)                  | 130   |
| Number of deliveries (thousands)                   | 16    |

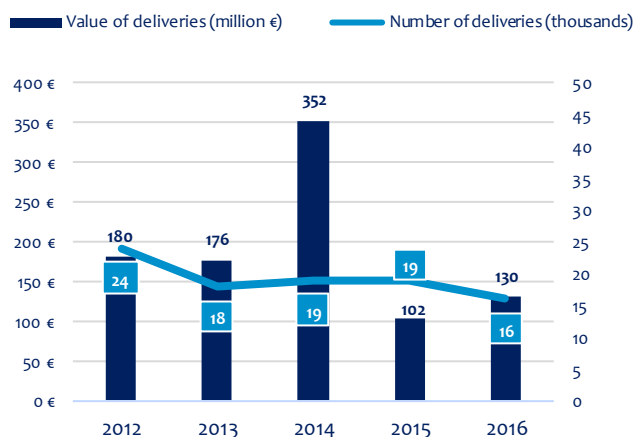
### Services

Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- Investment funds
- Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA - LEI





## Malta Stock Exchange (MSE)

MT

Malta Stock Exchange PLC, Garrison Chapel, Castile Place,  
Valletta VLT 1063, Malta  
[www.borzamalta.com.mt](http://www.borzamalta.com.mt) - Annual report

### Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

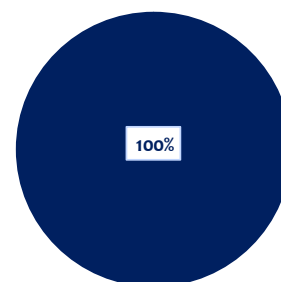
- ✓ Model 1 (Settlement in EUR)
- ✓ Model 2 (Settlement in non-EUR)
- Model 3

### Corporate information

For profit  
12 employees (12 FTEs)

CSD ownership:

■ State authorities



### Users

Securities accounts: 263,800

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 17

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 113    |
| Redemptions                                        | 107    |
| Value of securities held on accounts (EUR million) | 14,732 |
| Value of deliveries (EUR million)                  | 4,504  |
| Number of deliveries (thousands)                   | 43     |

### Services

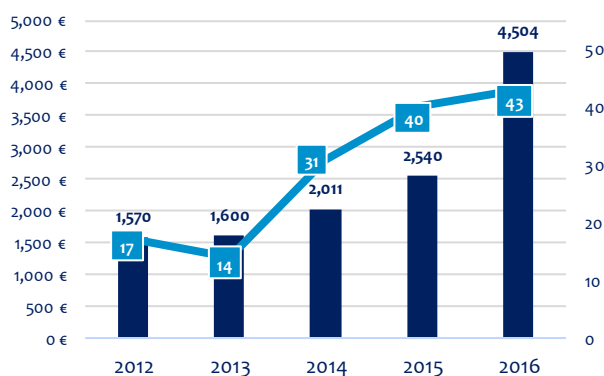
Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- Investment funds
- Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA - LEI

■ Value of deliveries (million €) — Number of deliveries (thousands)





## Euroclear Nederland

Euroclear Nederland, Herengracht 459-469,  
1017 BS Amsterdam, the Netherlands  
[www.euroclear.com](http://www.euroclear.com) – Annual report

NL

### Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

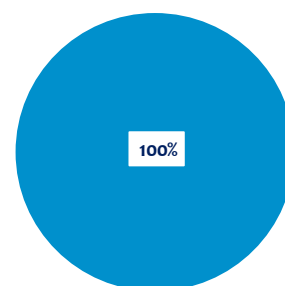
- ✓ Model 1
- Model 2
- Model 3

### Corporate information

For profit  
47 employees (44.8 FTEs)

CSD ownership:

■ CSD participants



### Users

Securities accounts: 564

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 69

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |           |
|----------------------------------------------------|-----------|
| New issues                                         | 37,185    |
| Redemptions                                        | 36,183    |
| Value of securities held on accounts (EUR million) | 1,006,512 |
| Value of deliveries (EUR million)                  | 4,695,068 |
| Number of deliveries (thousands)                   | 5,894     |

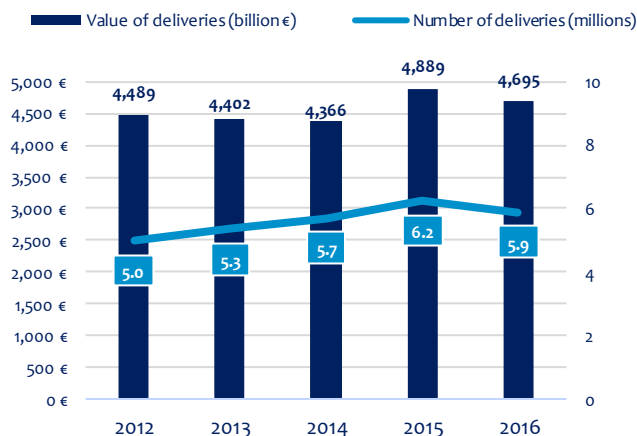
### Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA - LEI



## Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

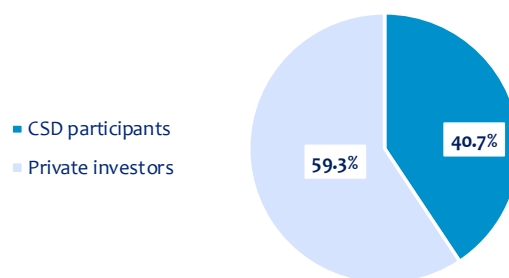
- Model 1
- ✓ Model 2
- Model 3

## Corporate information

For profit

118 employees (116 FTEs)

CSD ownership:



## Users

Securities accounts: 1,173,326

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 36

■ Domestic ■ Non-domestic



## Securities transactions 2016

|                                                    |           |
|----------------------------------------------------|-----------|
| New issues                                         | 2,032     |
| Redemptions                                        | 1,985     |
| Value of securities held on accounts (EUR million) | 537,848   |
| Value of deliveries (EUR million)                  | 3,526,023 |
| Number of deliveries (thousands)                   | 22,904    |

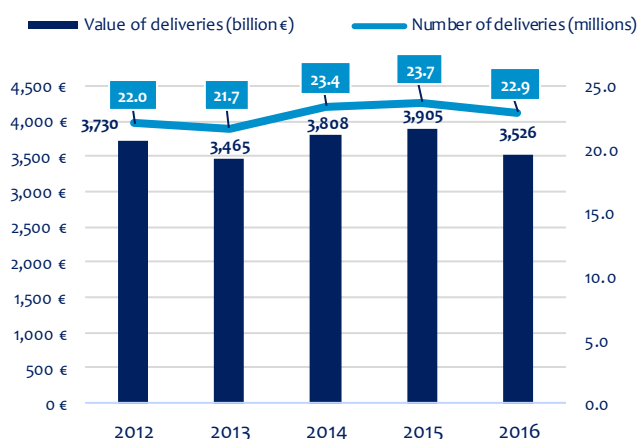
## Services

Financial instruments accepted for  
deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- ✓ Emission rights
- Other: -

Other services:

- ✓ NNA
- LEI



Krajowy Depozyt Papierów Wartościowych S.A.,  
4 Książęca St, 00-498 Warsaw, Poland  
[www.kdpw.pl](http://www.kdpw.pl) - Annual report

## Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- ✓ Model 1
- ✓ Model 2 (batch cycle)
- ✓ Model 3 (batch cycle)

## Users

Securities accounts: 42,512

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 60

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: Investment & other certificates, international bonds, banking securities

Other services:

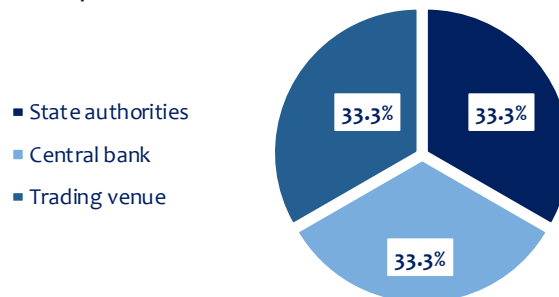
- ✓ NNA
- ✓ LEI

## Corporate information

Not for profit

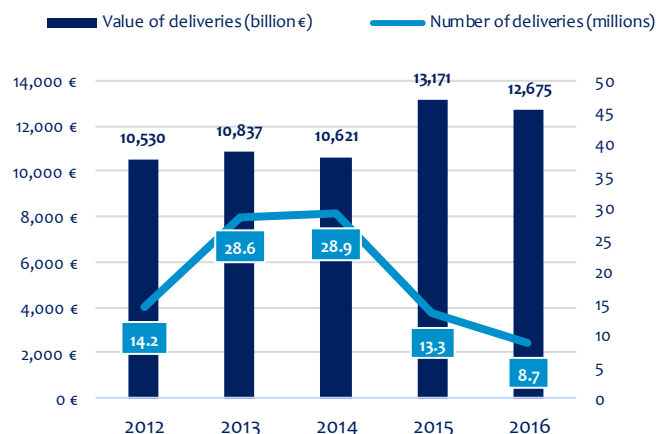
185 employees (182,5 FTEs)

CSD ownership:



## Securities transactions 2016

|                                                    |            |
|----------------------------------------------------|------------|
| New issues                                         | 980        |
| Redemptions                                        | 811        |
| Value of securities held on accounts (EUR million) | 287,096    |
| Value of deliveries (EUR million)                  | 12,674,727 |
| Number of deliveries (thousands)                   | 8,686      |



Sociedade Gestora de Sistemas de Liquidação e de Sistemas Centralizados de Valores Mobiliários S.A., Avenida da Boavista 3433, 4100-138 Porto, Portugal  
[www.interbolsa.pt](http://www.interbolsa.pt) - Annual report

## Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1
- Model 2
- Model 3

## Users

Securities accounts: 671

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 40

■ Domestic ■ Non-domestic

85%

15%

## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

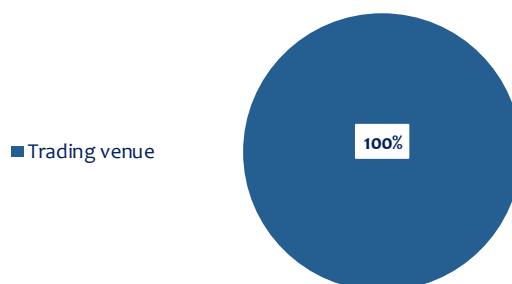
- ✓ NNA
- LEI

## Corporate information

For profit

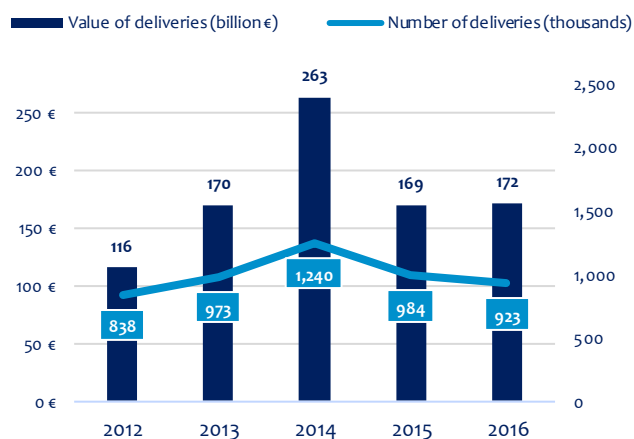
33 employees (33 FTEs)

CSD ownership:



## Securities transactions 2016

|                                                    |         |
|----------------------------------------------------|---------|
| New issues                                         | 4,850   |
| Redemptions                                        | 4,040   |
| Value of securities held on accounts (EUR million) | 618,089 |
| Value of deliveries (EUR million)                  | 171,565 |
| Number of deliveries (thousands)                   | 923     |



Depozitarul Central SA, IBC Modern Building,  
34 - 36 Carol I Boulevard, Floors 8,  
Bucharest 020922, Romania  
[www.rocLEAR.eu](http://www.rocLEAR.eu) - Annual report

## Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

- ✓ Model 1 (OTC transactions)
- ✓ Model 2 (Exchange transactions)
- Model 3

## Users

Securities accounts: 8,522,584

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 51

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- Treasury bills
- Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Structure products, Municipal bonds

Other services:

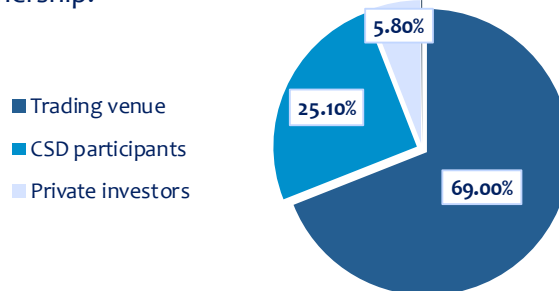
- ✓ NNA
- LEI

## Corporate information

For profit

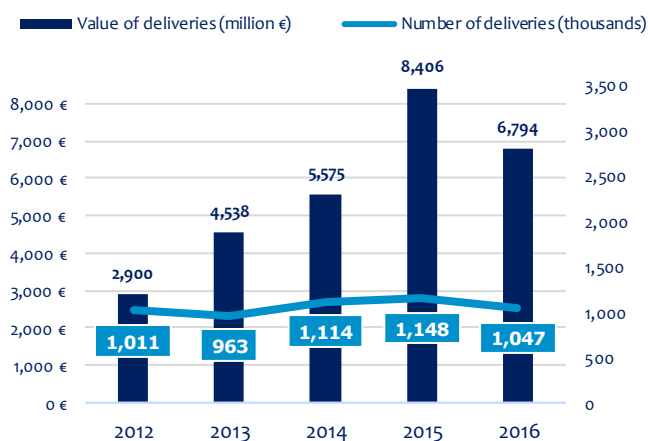
52 employees (52 FTEs)

CSD ownership:



## Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 116    |
| Redemptions                                        | 91     |
| Value of securities held on accounts (EUR million) | 21,040 |
| Value of deliveries (EUR million)                  | 6,794  |
| Number of deliveries (thousands)                   | 1,047  |



Centralni registar, depo i kliring hartija od vrednosti,  
5 Republic Square, fourth floor, 1103 Belgrade, Serbia  
[www.crhov.rs](http://www.crhov.rs) - Annual report

## Basic information

- Banking license
- Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- Model 1
- ✓ Model 2
- Model 3

## Users

Securities accounts: 8,449,623

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 52

■ Domestic ■ Non-domestic

100%

## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- Investment funds
- Warrants and rights
- Emission rights
- ✓ Other: Municipal bonds

Other services:

- ✓ NNA
- LEI

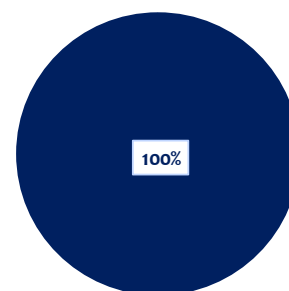
## Corporate information

For profit

32 employees (32 FTEs)

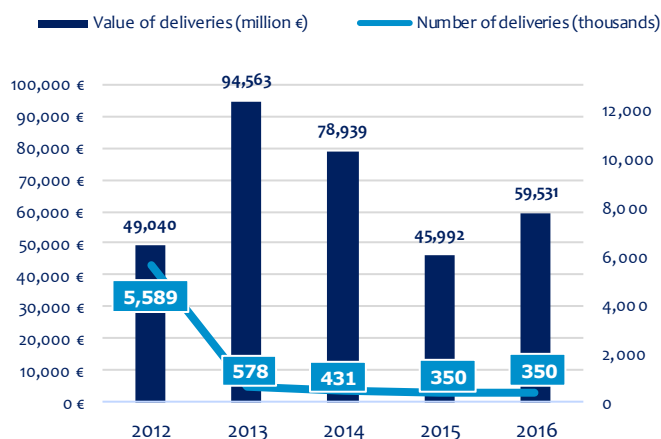
CSD ownership:

■ State authorities



## Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 144    |
| Redemptions                                        | 663    |
| Value of securities held on accounts (EUR million) | 29,243 |
| Value of deliveries (EUR million)                  | 59,531 |
| Number of deliveries (thousands)                   | 350    |



## Basic information

- ✓ Banking license
- Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- ✓ Model 1 (OTC transactions)
- ✓ Model 2 (OTC transactions)
- ✓ Model 3 (OTC transactions & Exchange transactions)

## Users

Securities accounts: 3,537

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 844

■ Domestic ■ Non-domestic



## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Eurobonds, Depositary receipts

Other services:

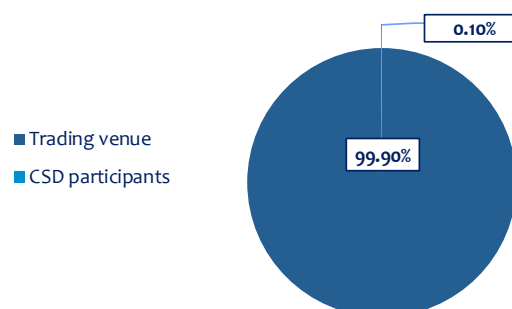
- ✓ NNA
- ✓ LEI

## Corporate information

For profit

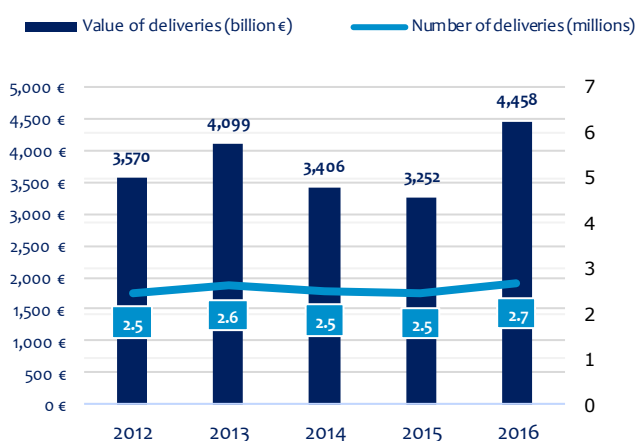
505 employees (456 FTEs)

CSD ownership:



## Securities transactions 2016

|                                                    |           |
|----------------------------------------------------|-----------|
| New issues                                         | 1,373     |
| Redemptions                                        | 754       |
| Value of securities held on accounts (EUR million) | 491,033   |
| Value of deliveries (EUR million)                  | 4,457,651 |
| Number of deliveries (thousands)                   | 2,673     |





## Euroclear Sweden

SE

Euroclear Sweden AB, Klarabergsviadukten 63,  
101 23 Stockholm, Sweden  
[www.euroclear.com](http://www.euroclear.com) – Annual report

### Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

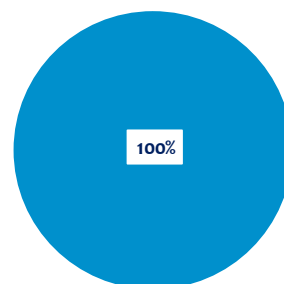
- ✓ Model 1
- Model 2
- Model 3

### Corporate information

For profit  
86 employees (79.8 FTEs)

CSD ownership:

■ CSD participants



### Users

Securities accounts: 3,200,000

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 46

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |            |
|----------------------------------------------------|------------|
| New issues                                         | 30,000     |
| Redemptions                                        | 28,000     |
| Value of securities held on accounts (EUR million) | 1,391.842  |
| Value of deliveries (EUR million)                  | 10,172,247 |
| Number of deliveries (thousands)                   | 13,870     |

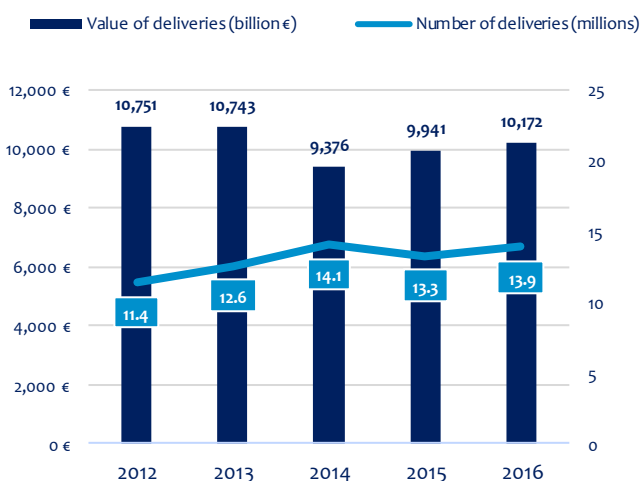
### Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: Funds, Lottery bonds, Swedish Depositary Receipts

Other services:

- ✓ NNA - LEI





## Central Securities Clearing Corporation (KDD)

SI

Centralna klirinško depotna družba, d.d., Tivolska  
cesta 48, 1000 Ljubljana, Slovenia  
[www.kdd.si](http://www.kdd.si) - Annual report

### Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

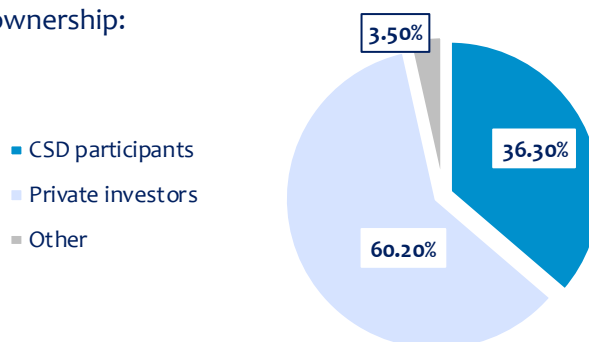
BIS settlement model:

- ✓ Model 1 (OTC-DVP transactions)
- ✓ Model 2 (Exchange transactions)
- Model 3

### Corporate information

For profit  
63 employees (63 FTEs)

CSD ownership:



### Users

Securities accounts: 234,131

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 22

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 62     |
| Redemptions                                        | 113    |
| Value of securities held on accounts (EUR million) | 28,217 |
| Value of deliveries (EUR million)                  | 27,130 |
| Number of deliveries (thousands)                   | 305    |

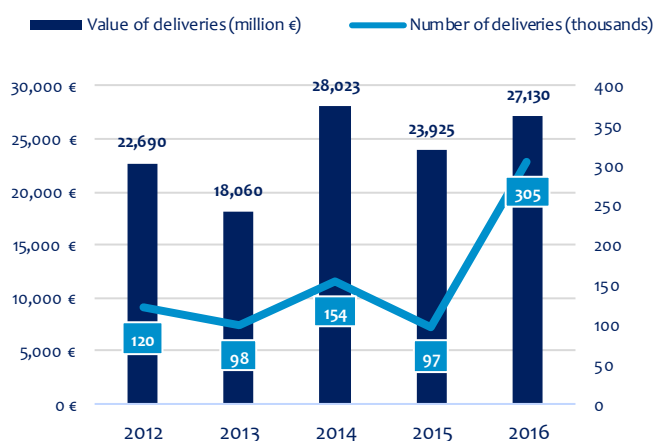
### Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- ✓ NNA
- ✓ LEI





## Central Securities Depository of the Slovak Republic (CDCP SR)

SK

Centrálny depozitár cenných papierov SR, a.s.,  
ul. 29.augusta 1/A, 81480 Bratislava, Slovak Republic  
[www.cdcpsk.sk](http://www.cdcpsk.sk) - Annual report

### Basic information

- Banking license
- ✓ Designated SSS
- ✓ Eurosystem eligible SSS
- ✓ T2S (EUR)

BIS settlement model:

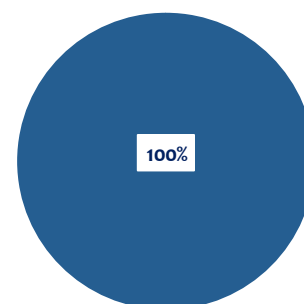
- ✓ Model 1
- ✓ Model 2
- Model 3

### Corporate information

For profit  
76 employees (75 FTEs)

CSD ownership:

■ Trading venue



### Users

Securities accounts: 250,956

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 23

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 174    |
| Redemptions                                        | 165    |
| Value of securities held on accounts (EUR million) | 46,813 |
| Value of deliveries (EUR million)                  | 39,515 |
| Number of deliveries (thousands)                   | 33     |

### Services

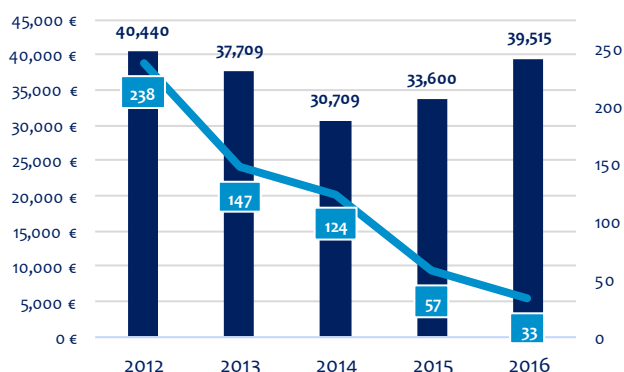
Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- Warrants and rights
- Emission rights
- ✓ Other: Co-operative units

Other services:

- ✓ NNA
- ✓ LEI

■ Value of deliveries (million €) — Number of deliveries (thousands)



Merkezi Kayıt Kuruluşu A.Ş., Reşitpaşa Mahallesi,  
Tuncay Artun Caddesi, Emirgan, Sarıyer,  
34467 İstanbul, Turkey  
[www.mkk.com.tr](http://www.mkk.com.tr) - Annual report

## Basic information

- Banking license
- Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- ✓ Model 1 (Transactions between direct and indirect participants)  
Model 2
- ✓ Model 3 (Exchange transactions between direct participants)

## Users

Securities accounts: 46,833,776

End investor accounts at CSD: Yes

End investor accounts mandatory: Yes

Total participants: 129

■ Domestic ■ Non-domestic

100%

## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- ✓ Other: ABS, Covered bonds, Certificates, Sukuks

Other services:

- NNA
- LEI

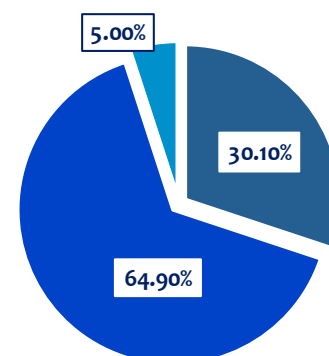
## Corporate information

For profit

178 employees (178 FTEs)

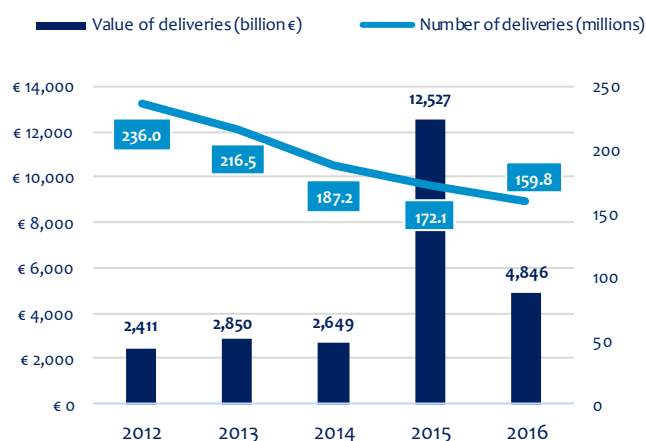
CSD ownership:

- Trading venue
- CCP
- CSD participants



## Securities transactions 2016

|                                                    |           |
|----------------------------------------------------|-----------|
| New issues                                         | 4,873     |
| Redemptions                                        | 3,114     |
| Value of securities held on accounts (EUR million) | 275,277   |
| Value of deliveries (EUR million)                  | 4,845,514 |
| Number of deliveries (thousands)                   | 159,810   |



## Basic information

- Banking license
- Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

- ✓ Model 1 (OTC and some exchange transactions)
- Model 2
- ✓ Model 3 (Exchange transactions)

## Users

Securities accounts: 439

End investor accounts at CSD: No

End investor accounts mandatory: No

Total participants: 263

■ Domestic ■ Non-domestic

100%

## Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- Government bonds
- ✓ Corporate bonds
- Treasury bills
- Commercial paper
- ✓ Investment funds
- Warrants and rights
- Emission rights
- ✓ Other: Investment certificates, government europbonds, depository receipts, option certificates

Other services:

- ✓ NNA
- LEI

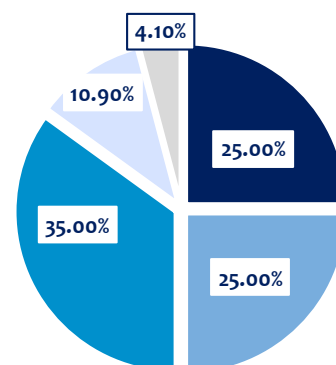
## Corporate information

For profit

122 employees (109 FTEs)

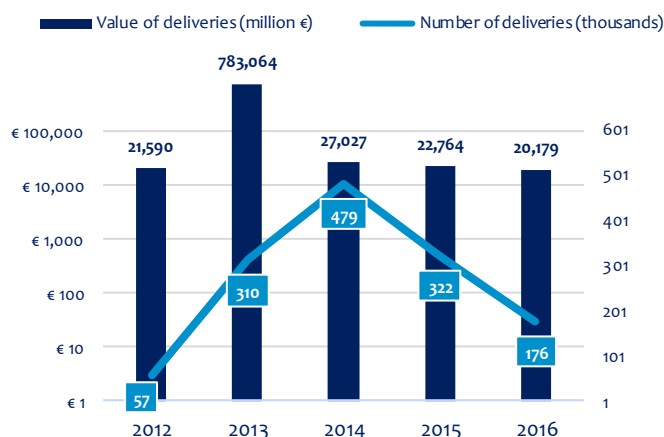
CSD ownership:

- State authorities
- Central bank
- CSD participants
- Private investors
- Other



## Securities transactions 2016

|                                                    |        |
|----------------------------------------------------|--------|
| New issues                                         | 470    |
| Redemptions                                        | 614    |
| Value of securities held on accounts (EUR million) | 50,257 |
| Value of deliveries (EUR million)                  | 20,179 |
| Number of deliveries (thousands)                   | 176    |





## Euroclear UK & Ireland (EUI)

UK

Euroclear UK & Ireland Limited, 33, Cannon Street, EC4M 5SB London, United Kingdom  
[www.euroclear.com](http://www.euroclear.com) – Annual report

### Basic information

- Banking license
- ✓ Designated SSS
- Eurosystem eligible SSS
- T2S

BIS settlement model:

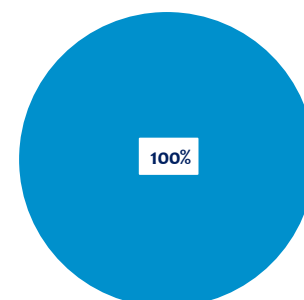
- ✓ Model 1 (EUR and GBP)
- ✓ Model 2 (USD)
- Model 3

### Corporate information

For profit  
 338 employees (327,8 FTEs)

CSD ownership:

■ CSD participants



### Users

Securities accounts: 381,085

End investor accounts at CSD: Yes

End investor accounts mandatory: No

Total participants: 234

■ Domestic ■ Non-domestic



### Securities transactions 2016

|                                                    |             |
|----------------------------------------------------|-------------|
| New issues                                         | 8,652       |
| Redemptions                                        | 8,491       |
| Value of securities held on accounts (EUR million) | 6,071,410   |
| Value of deliveries (EUR million)                  | 237,329,507 |
| Number of deliveries (thousands)                   | 61,321      |

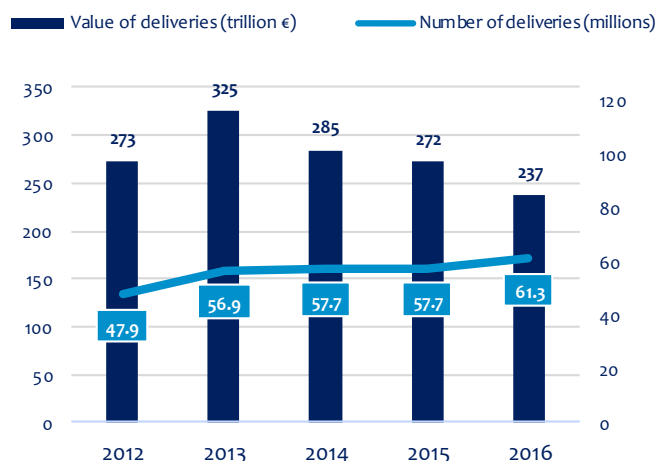
### Services

Financial instruments accepted for deposit and/or settlement:

- ✓ Equities
- ✓ ETFs
- ✓ Government bonds
- ✓ Corporate bonds
- ✓ Treasury bills
- ✓ Commercial paper
- ✓ Investment funds
- ✓ Warrants and rights
- Emission rights
- Other: -

Other services:

- NNA
- LEI









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