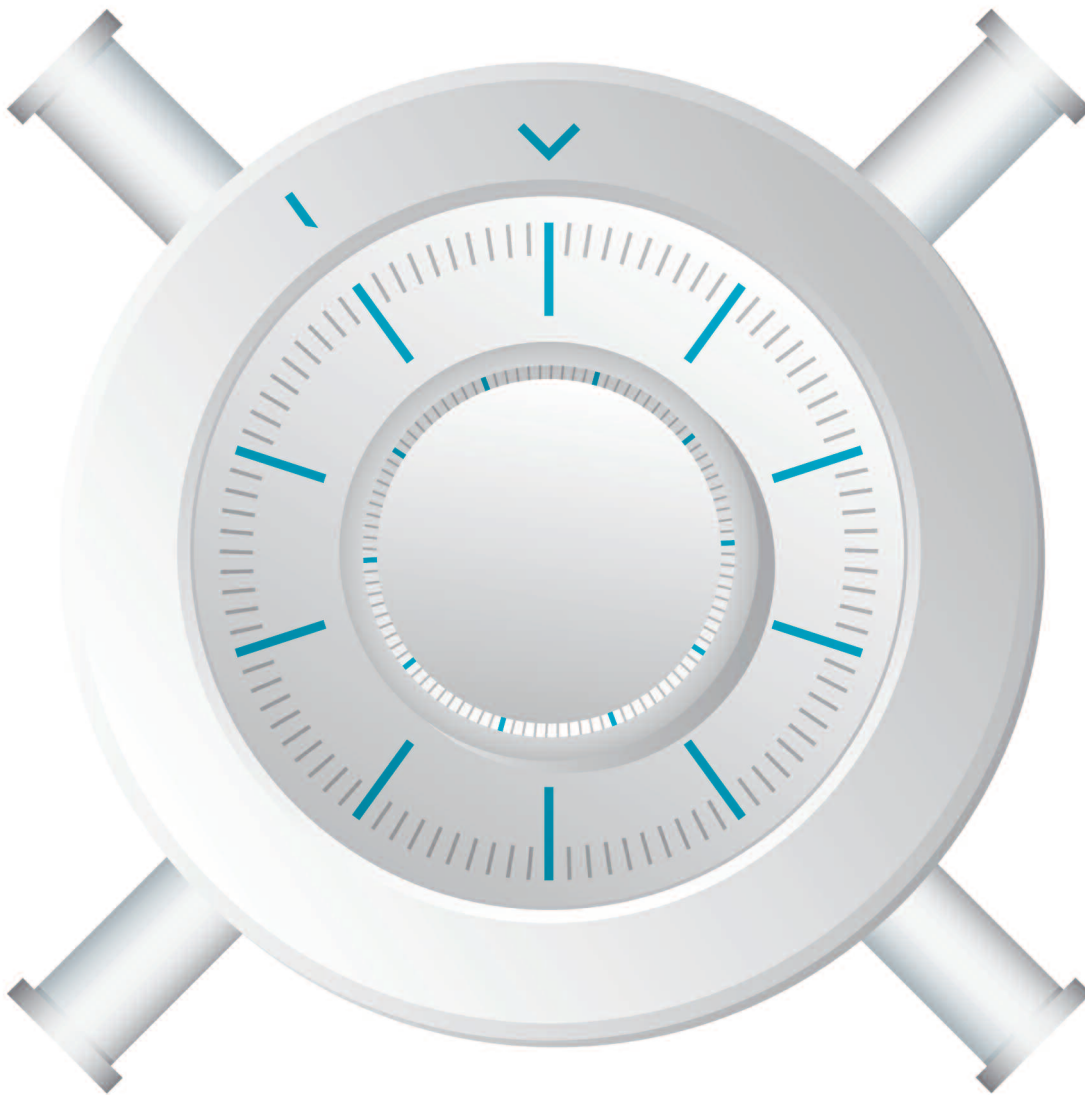


Clearstream

Your asset safety solution

A briefing paper on how we protect customers' assets



Key benefits

Low-risk business

As a market infrastructure, Clearstream's Central Securities Depository systems are subject to stringent EU legislation and oversight to help protect your assets.

First-class AA risk ratings for our ICSD business

To achieve our [first-class AA ratings](#) from major international rating agencies for risk management and operational efficiency, we adopt a holistic approach to asset safety. As a Securities Settlement System, our relatively low credit exposure and limited balance sheet contribute to our AA ratings.

Market and commercial neutrality

Clearstream's ownership model, as part of the Deutsche Börse Group listed on the Frankfurt Stock Exchange, ensures that it takes a market neutral position and acts in the best interest of all of its participants, free from any commercial bias.

Advanced operational risk management

To monitor and mitigate risks as far as possible, Clearstream applies an advanced operational risk management method as set out in the Basel II banking recommendations.

Strict due diligence and transparency across our custody chains

We operate secure and transparent custody chains by carrying out strict due diligence procedures concerning our partners and suppliers and sharing information about our custody chain setups with customers.

Rigorous cyber security and business continuity management

Our sound information security policy helps keep our infrastructure as secure and resilient as possible. We take business continuity management seriously and have policies and systems in place to ensure optimal cyber security.

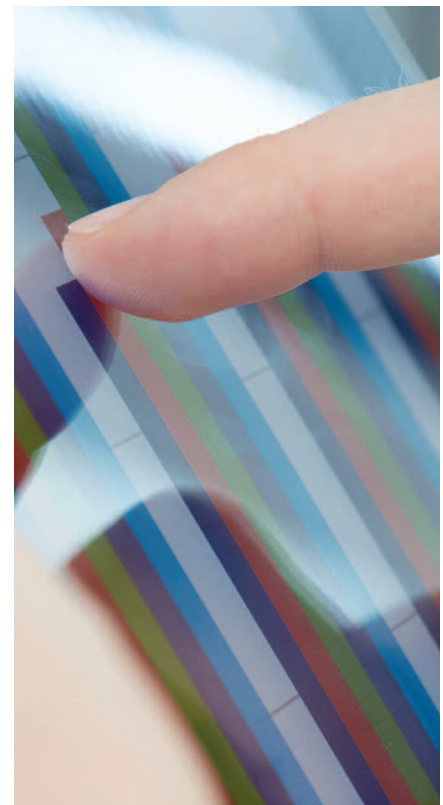
Account type choice and protection of your assets

A range of account types is available including a nominee account structure so that you can benefit from the strong Luxembourg and German asset protection laws no matter your home

market jurisdiction. We then always keep your assets separately from Clearstream's to safeguard them in the unlikely event that Clearstream, its agent, custodian or depository should become insolvent.

Sound operations executed by industry professionals

We prioritise the quality and reliability of our operations. Our staff undergo regular professional training and the average number of years' experience working at Clearstream is high, such as circa 13 years in the case of our IT professionals. An annual client services survey feeds into our continual efforts to improve our operations and service offering.



Clearstream's account protection policy triangle serves to keep your assets safe

What do we mean by asset safety? Our definition is ultimately that asset safety is the ability for our customers to recover their assets, or equivalent, held with us, in a timely fashion in the event of an insolvency of Clearstream or of one of our agents.

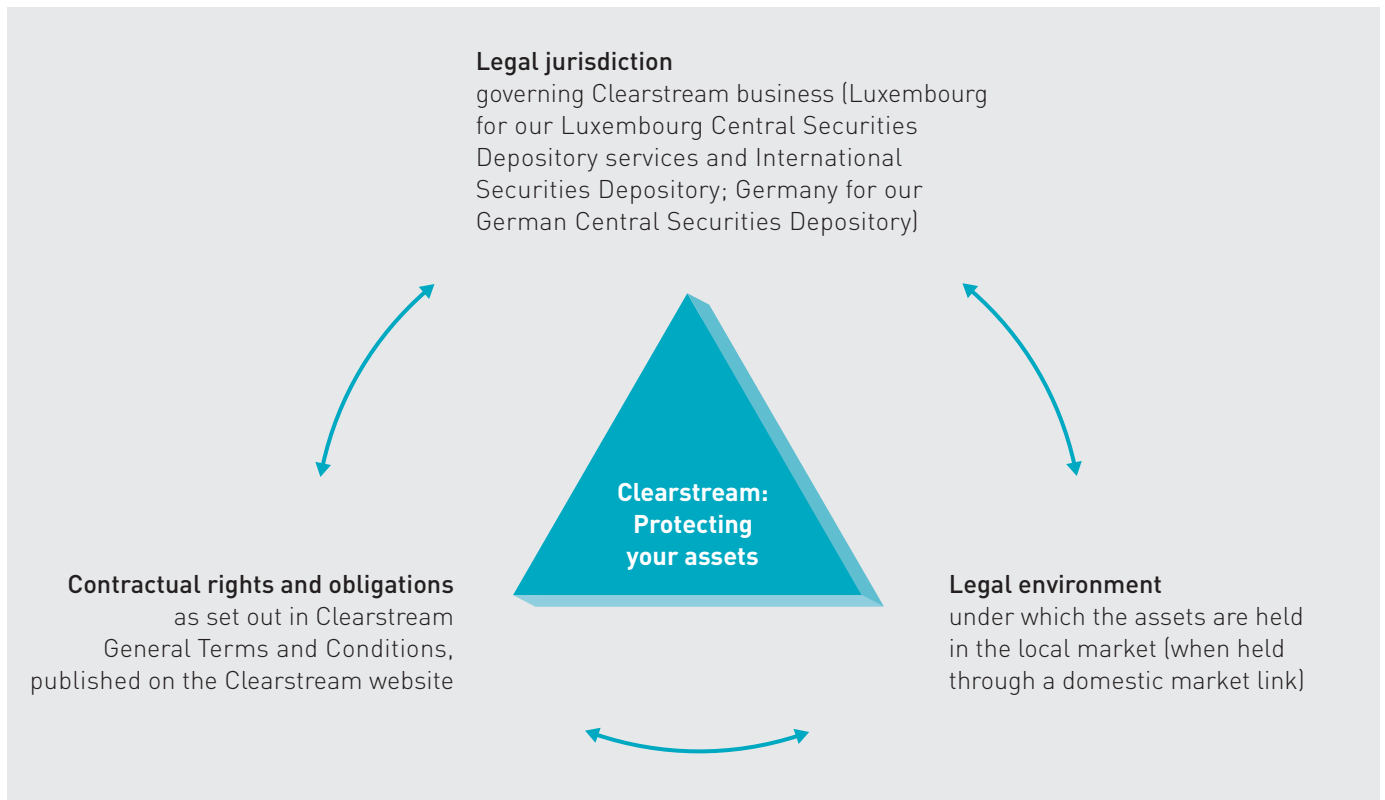
To achieve asset safety at Clearstream, all our customers' assets are subject to the following safekeeping features, which we refer to as our asset protection policy triangle:

1. The legal jurisdiction which governs Clearstream's business (as regulated by respective local regulators in Luxembourg and Germany).

2. Contractual rights and obligations as set out in Clearstream General Terms and Conditions, which are published on the Clearstream website.

3. The legal environment under which the securities are held in the local market. This is complemented by our robust due diligence approach to doing business with our local custody chain partners, our global review, through local legal opinions in each market where we hold assets, and the segregation of Clearstream's assets from those of our clients.

Clearstream's asset protection policy triangle



Clearstream's regulatory environment helps protect your assets

Some 70 central banks entrust their assets with Clearstream – collectively, a token of our solid asset safety environment. Customers have confidence in the fact that Clearstream's business, based in both Luxembourg and Germany, is subject to regulatory regimes which are amongst the most protective worldwide for the depositor and end investor.

Under Luxembourg law (specifically, the Law of 1 August 2001 on the circulation of securities), our Clearstream Banking Luxembourg (Clearstream Banking S.A.) customers benefit from a "Jus in Rem" (Proprietary Right) entitling them to claim their securities or equivalent securities deposited with Clearstream in the event of bankruptcy.

Similarly, customers holding assets in our German Central Securities Depository (CSD, Clearstream Banking AG or "Clearstream Banking Frankfurt") benefit from special Collective Safe Custody services as governed by Section 9 of the German Safe Custody Act.

According to this Collective Safe Custody setup, in the unlikely event of an insolvency of Clearstream Banking Frankfurt, the investor or depositor retains asset ownership. In the case of an insolvency of Clearstream Banking Frankfurt, no customer securities would fall into the insolvency estate of this CSD since, as a rule, customers have proprietary-like rights on the customer assets and, therefore, such assets are ring-fenced and can be separated from those of the CSD's by the customer in the case of insolvency of Clearstream Banking Frankfurt. The depositors' entitlements are disconnected to any insolvency on our part and so can be exercised independently from the insolvency.

Thanks to Luxembourg and German Proprietary Rights, when securities are held by Clearstream in a nominee account or in a domestic market, as long as the customer can prove that the initial booking and records are with Clearstream, these securities are protected according to the respective Luxembourg or German law. The securities or equivalent securities would be retrievable in the event of a Clearstream bankruptcy.

Our customers' assets cannot be seized or blocked in any way by a counterparty or any third party. Clearstream customers' accounts are protected against any risk of being attached (transferred, as a legal process, to the creditor, or sold for the benefit of the creditor) by any third party creditor

at a higher level in the custody chain. (This is legally referred to as being protected against "upper tier attachment" and is set out in Luxembourg securities settlement system laws (Law of 1 August 2001 on the circulation of securities, and Grand Ducal Regulation of 13 July 2007 relating to organisational requirements and rules of conduct in the financial sector).

More widely, in our investment funds business, Clearstream's interaction with fund agents is contractually regulated and depositary banks benefit from reporting on registrars. Legal opinions on the domiciles of fund registers assure customers that their beneficial ownership is recognised in the markets where their assets are held. Our Delivery Versus Payment processing offers investor protection by only transferring cash out of our customer's account once credited with the fund shares. Further asset safety features for our Vestima business are outlined in our [Vestima – Asset Safety](#) brochure.

Due diligence checks and continual market monitoring ensure you enjoy a transparent and secure custody chain

We apply a three-step approach to providing a transparent and secure custody network. We aim to continue this approach, continually building on our international standards together with any necessary adaptations to comply with and benchmark against the EU Central Securities Depositories Regulation (CSDR) requirements.

First, we carry out **comprehensive and rigorous due-diligence checks** when working with partners. Secondly, we **continually monitor** the activities of our custody chain participants and wider market developments. Thirdly, we **equip you with the appropriate information** for your own due diligence exercises.



Working with partners

It is our policy to deposit customer assets at the upper tier level (issuer-CSD) wherever feasible. These direct links to the local market infrastructure (CSD) give us a direct overview of that market infrastructure. Where it is not possible to offer a direct setup (as not all domestic market regimes recognise market infrastructures located in other jurisdictions or maintain the necessary rule of law to support compatibility), our careful and strict due diligence approach to working with local partners as our indirect link into the market is critical.

Our process for working with a custody supplier (CSD, local custodian or agent bank) includes a formal request proposal (RFP) or equivalent, depending on the institution in question, to leading institutions in the target market, with criteria such as their credit rating, industry rank, management competences, liquidity and statements of appropriate Anti Money Laundering (AML) measures. The operational capacity, market reputation and size of potential partners are also important factors.

This RFP process ties together a detailed operational review of each individual business process of the partner. As a next step, internal legal, compliance and credit reviews check that the entities in question offer the most secure, sound and transparent settlement and asset services possible.

Our network management team carry out on-site due diligence visits. Following final approval from our executive management, we obtain a legal opinion from an external legal counsel.

The local legal opinions we obtain outline the extent to which the Luxembourg or German asset protection laws are in line with the local law in each domestic market in which we hold customers' assets. Where the local law does not reciprocate the strong Luxembourg or German asset protection laws, we seek to negotiate with the local

CSD to achieve the same standards via contractual agreement. We flag up any areas where the legal characteristics in the given domestic market differ to the protection granted by Luxembourg or German law and publish this information for customers via our [Market Link Guides](#) on our website.

Local laws on relevant financial market topics are also taken into account in the legal opinion, to represent independent and neutral confirmation of the agent's ability to perform its functions towards Clearstream, and ultimately, to you.

Continual monitoring

Monitoring of both developments in the markets in which we offer services, and the activities of our partners, together with appropriate reporting, is paramount to minimise risk.

End-to-end internal and external testing of direct domestic link operations takes place to provide a firm base, before going live with any new link, for efficient systems performance and reliable reporting.



Once the link is live, we collect and report statistics and incident data regarding the operations of our custody suppliers, which we use in scheduled service reviews. We also closely monitor the quality of the market link service, including via client feedback.

Following the launch of a link, we carry out follow-up visits to our partners. Continual monitoring of our suppliers' creditworthiness and credit lines enables us to identify and quickly take appropriate risk mitigation actions if we deem that the robustness of a supplier is changing.

Transparency

Finally, we equip you with the relevant custody chain and market information to put you in the best position to manage your own risks. We request a Three Point Declaration (setting out the underlying custody chain details) from all domestic and foreign custodians involved in our custody chain. We publish these Three Point Declarations on our [website](#).

Market information is easily available on our website. Updates are made to our market profiles and Market Link Guides as soon as our Network Managers are informed by their network of local agents and contacts in each respective domestic market. Email notifications are issued to your inbox within 15 minutes of a page being updated on the website.

The [Domestic Markets Monitoring Report \(DMMR\)](#) offered by Clearstream shows the custody chain below Clearstream that is applied to safekeep securities in the domestic markets. The DMMR supports depository banks in fulfilling the due diligence and

regulatory obligations they face, set out in the Undertakings for Collective Investment in Transferable Securities (UCITS V) directive and the Alternative Investment Fund Manager Directive (AIFMD). It provides customers with a view of the structure of our direct and indirect custody links, indicators of our relationship with CSDs or sub-custodians and risks at market, sub-custodian and CSD level and so can also be of interest to non-depository institutions.

We also offer a specific [Registrar Monitoring Report \(RMR\)](#) for securities held in the fund's register kept by registrars and transfer agents.

Depository features explained

Issuer-CSD: For securities we issue and safekeep as issuer-CSD, customers benefit from the fact that we are the top of the custody chain. We can provide transparency to customers about the custody chain and we retain full legal CSD responsibility for the safekeeping of their securities.

International market: Clearstream, together with Euroclear Bank, acts as the issuer-CSD for the international market (Eurobonds). The interlinkage between the two ICSD entities is referred to as the Bridge. Each ICSD

entity safeguards the assets they hold without these leaving the ICSD in which they were deposited, meaning no exposure to Euroclear bank from an asset protection perspective (and vice-versa). To provide our customers maximum flexibility in a common framework, including towards the issuers, we rely on a network of service providers including Common Safekeepers, Common Depositories and Common Service Providers. Asset protection obligations are constantly fulfilled within this context. For example, global notes are immobilised at all times and we ensure that finality on the Bridge is always achieved in Clearstream's books without any dependencies on Euroclear Bank or any other party within the common framework.

Investor-CSD: Where we safekeep securities as investor-CSD, namely via links to other CSDs, our due diligence of our custody partners plays a fundamental role as well as our local monitoring and understanding of the market environment which governs the local CSD holding our customers' assets.

As we roll out our links to domestic markets in the **TARGET2-Securities (T2S)** environment (for the centralised settlement of securities in Europe), customers will benefit from enhanced and more direct links to domestic markets.

Legal compliance and policing by regulators keeps your assets safe



Clearstream Banking Luxembourg is licensed as a bank by the Commission de Surveillance du Secteur Financier (CSSF), and has all the powers and responsibilities of a licensed credit institution under the Law.

The CSSF is Luxembourg's prudential regulator with authority over all banks and financial services providers, payment institutions and investment vehicles and managers, headquartered in Luxembourg.

In particular, the CSSF implements the legal framework and issues Circulars applicable to the supervised entities. The CSSF also integrates the responsibilities of monitoring the stock markets and supervising the Luxembourg Stock Exchange.

Clearstream Banking Luxembourg is also recognised as a Securities Settlement System (SSS) and is therefore subject to the oversight of the Luxembourg Central Bank (Banque centrale du Luxembourg, BcL), in turn responsible for implementing the monetary policy decided by the Governing Council of the European Central Bank (ECB). BcL oversees the disposition of open market operations, standing facilities, minimum reserves and instruments available to the European System of Central Banks (ESCB) and the SSSs to ensure systemic stability of payment systems and Securities Settlement Systems.

As a CSD in Frankfurt meanwhile, our business is regulated by the local regulators in Germany (Bundesanstalt für Finanzdienstleistungsaufsicht (BaFIN)/Deutsche Bundesbank).

Further regulators policing our operations include the Monetary Authority of Singapore, for our Singapore office, and the Financial Conduct Authority (FCA) of the Bank of England/Prudential Regulation Authority (PRA) for our UK London branch.

At group level, as part of the wider Deutsche Börse Group, the German Corporate Governance Code and the German Sustainability Code are key elements of our corporate culture.

We also comply with international guidelines – the United Nations Global Compact and standards set by the International Labour Organisation. To be transparent about how we comply with such codes, we offer a corporate governance declaration in our [annual report](#), published on our website.

Clearstream's CSDs will soon be subject to the [EU Central Securities Depositories Regulation \(CSDR\)](#). This regulation requires CSDs to obtain a specific CSDR license to operate based on minimum transparency requirements and enhanced capital requirements, as well as wider provisions aimed at enhancing CSD operational efficiency and asset protection throughout the value chain right through to the end investor. (Customers can learn more via our [dedicated CSDR webpages](#).)

Another regulatory responsibility requires Clearstream to publicly disclose its risk management principles in its [Pillar III report](#), which we publish on our website for regulators, clients and any other interested parties.

Clearstream in addition publishes its [International Standard on Assurance Engagements \(ISAE\)](#) reports detailing its controls, their design and operating effectiveness, including an independent assessment of whether the controls were placed in operation, suitably designed, and operating effectively. The reports are intended for you as customers, your auditors and for the CSSF.



External endorsement of Clearstream's stability: Successful stress-test by the European Central Bank

A particular external endorsement of the safety of our systems came in October 2014 in the form of the European Central Bank (ECB) published results of its stress test and Comprehensive Assessment of banks.

The ECB undertook a critical analysis of the balance sheets of 130 Eurozone banks and banking groups. This was part of the implementation of the Single Supervisory Mechanism ("banking union"), which established the ECB as the highest regulatory authority for banks in the Eurozone.

Clearstream passed the related ECB stress test with very good results in all scenarios. The extensive assessment included an examination of the balance sheet and a verification of equity capital coverage levels, which led to a confirmation by the ECB of the institution's high resilience.

Knowing our customers helps keep your assets safe

Know Your Customer (KYC) policies and due diligence processes are regulatory duties and part of our business as usual activities. The key aim is to establish the optimal security of assets we hold for customers by determining who is to access the Clearstream system and for what purpose – seeking to minimise fraud or access by unethical market participants.

We apply our KYC and due diligence checks during the full lifetime of the relationship with a customer – from first contact to on-boarding and systematically thereafter during the entire customer relationship.

A thorough approach to getting to know our customers

As a customer, you will experience this KYC process via on-site visits and face to face meetings, which help us to fully understand the background of your business, your business in general, and your desired activity with Clearstream in particular.

Our KYC checks include an assessment of the purpose of your account and a detailed assessment of any client (or third party) assets that a prospective customer intends to deposit with Clearstream.

We also examine and assess the geography and nature of your own respective clients, the products in your organisation that your accounts at Clearstream will be supporting and an evaluation of your compliance and control framework.

Finally, in line with Anti Money Laundering (AML) procedures, laws and regulations, Clearstream screens every security and cash-related instruction prior to releasing it into the processing lifecycle. We take appropriate measures immediately if and when any transaction is deemed to potentially breach sanctions and embargo regimes or suggests money laundering, market abuse or other compliance-related concerns.



A robust risk management strategy, verified by third parties, helps mitigate risk in all business areas

Clearstream applies an advanced operational risk management method set out in the Basel II banking recommendations – the Advanced Measurement Approach (AMA), which is subject to approval from our local regulators. We are continually reviewing our risk approach in line with regulatory standards such as the CSDR. Our risk management model is detailed in our [Pillar III Disclosure Report](#), published on our website.

Clearstream's Business Continuity Management (BCM) also forms an important risk mitigator. As clients, you are regularly invited to participate in our BCM practices to obtain first-hand experience and confidence in how these work.



Sound, tested crisis management system

We offer customers a real-time alert system to help with incident management. This is complementary to the 24-hour, 6-days-a-week availability of our client services and operational centres, which service your needs at the touch of a button, no matter the time and no matter your time zone.

Our BCM offers continuity of critical operations in crisis scenarios. We offer several alternative connectivity options to ensure the resilience of your connectivity to our systems and

continued access to your securities should our business systems fail, as well as dedicated backup sites for operational functions and our data centre, which mirror data in real time so that we retain all data online even if one data centre fails.

Clearstream is either directly or via its parent company Deutsche Boerse Group, an active member of the following professional groups, which helps us keep abreast of latest best market practices in this field.

- Operational Crisis Prevention Group of the Luxembourg Central Bank;
- BCM working groups of the Federation of European Securities Exchanges (FESE), the German Financial Industry (BCMAKFI) and the companies listed in the DAX (BCM DAX30).

Sound and robust information and cyber security

As a business based on IT systems and in charge of customers' data, Clearstream's information security policy and standards are fundamental to our business and top of our agenda. We also keep fiercely in line with all effective data protection laws so that while you share your data with us, you can rest assured we keep it safe and secure.

Our IT function, operations and policies are under scrutiny by our regulators. For example, the CSSF pays close attention to our IT security in its policing of our operations. Clearstream publishes an assurance report intended for the CSSF, our customers and their auditors, on the description of Clearstream's system controls, design and operating effectiveness. The report, known as the [International Standard on Assurance Engagements \(ISAE\) report, No. 3402](#) and published on our website includes details about information and cyber security policies and controls.

We have security processes in place to cover user management (including the regular review of access rights) and incident detection and escalation. Information is only accessible internally to those who need it to for their daily work. We also apply a strict "four-eyes" principle to ensure data consistency.

To help ensure an optimal cyber security policy, our dedicated Clearstream Computer Emergency Response Team (CERT) is in charge of proactively analysing major cyber incidents and determining and maintaining a picture of cyber situational awareness for review by senior management.

At industry level, we support the SWIFT Customer Security Programme (CSP), which aims to improve information sharing throughout the community. For example, Clearstream plans to complete the CSP self-attestations for all its active BICs at the earliest opportunity and is looking into giving permission to any customer or counterparty with a legitimate interest to view the self-attestations via the tools that the SWIFT CSP programme makes available.

Contact information

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