clearstream

Investment Funds Processing Achieving Best Practice Assessing our compliance with ISSA principles An analysis of our Investment Funds Services Assessing Clearstream's compliance with the "Ten guiding principles to achieve higher efficiency and convergence of market practice in European funds processing" issued by the ISSA Fund Working Group in October 2009.

In October 2009, the International Securities Services Association (ISSA) Fund Working Group issued its "Investment Funds Processing in Europe" report aimed at identifying and documenting the core investment funds processing models and patterns in Europe and highlighting local best practices which could – or should – be extended on a pan-European level in order to make cross-border funds processing more consistent and more efficient¹.

A number of practical recommendations are documented in the ISSA report however, in addition to these, the Group issued 10 more high level guiding principles which could serve as a reference in streamlining cross-border investment funds processing in Europe.

Clearstream welcomes the report from ISSA as highly valuable to explain and document the main models and processes existing in Europe today. It is an interesting initiative providing a pragmatic approach to streamlining these processes.

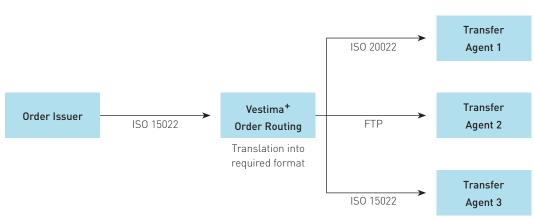
The present document lists the 10 principles issued by ISSA and describes for each of them to what extent Clearstream's Investment Funds Services comply with it.

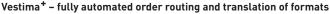
1) The "Investment Funds Processing in Europe" report from the ISSA Fund working Group can be found on www.issanet.org under the "Working Groups" section.

1. Paperless processes, straight-through processing based on ISO standards

"Paper should be removed from all processing steps and replaced by STP processes. All transaction related communication from order processing through commission payment between professional market participants should be electronic and adhere to ISO standards."

Clearstream has been instrumental in the development of STP solutions for investment funds processing with the implementation of its Vestima order routing service. Today it is one of the few really credible pan-European funds processing platforms to have emerged over the last few years. Since its launch, Vestima (then replaced by Vestima⁺) has always been driven by the guiding principle of automating all flows going through it. In order to achieve this, both parties to a trade (the buy-side and the fund-side) are offered a variety of STP communication means in order to accomodate their needs and scale: input through a browser-based workstation, file upload and download through the workstation, SWIFT messaging and FTP. In that respect, Clearstream supports ISO standards (both when orders are exchanged via the SWIFT network, and as the file format to be used in case of FTP connection). Vestima was the first cross-border order routing platform to implement ISO 15022 messaging, and Vestima⁺ was also first supporting the 20022 standard. Vestima⁺ fully supports the co-existance of different formats as illustrated in the example below:





However, as is sometimes erroneously considered, STP does not end with the processing of the order, but should be implemented all along the chain up to its final settlement and reconciliation. In order to achieve this, Clearstream's order routing platform (Vestima⁺) has been fully integrated with Clearstream's core settlement platforms, Creation in Clearstream Banking Luxembourg or Cascade in Clearstream Banking Frankfurt. This set-up allows customers (on both sides) to enjoy a fully automated and integrated processing of their fund orders from the initial issuance of the order up to its final settlement. The entire process is based on ISO compliant messaging:

- ISO 15022 or 20022 for the order routing part and
- ISO 15022 for the settlement, reporting and reconciliation.

While some operational interventions might still be needed for exceptions handling, Clearstream's STP rate (from order routing up to final settlement) is at 98.6%.

2. Mitigation of operational risk

"Financial and operational risks should be mitigated, especially counterparty credit risk and those related to the payment process."

Clearstream's fund processing model dramatically reduces risks for those counterparties in the following ways:

Operational risk is reduced, first and foremost by adopting an end-to-end, fully automated and integrated settlement process with no need for any manual intervention from order initiation up to final settlement. In addition, settlement of funds transactions in Clearstream is largely based on DVP (Delivery Versus Payment) instructions. DVP in the case of investment funds cannot bring the same level of counterparty risk reduction as for other instruments (in particular in TA-model based markets, where transfer of ownership occurs on trade date in the fund register). However, it allows a significant reduction of operational risks by aligning the settlement processes for funds transactions with those traditionally in place for other instruments (same procedures, same systems, centralised cash and credit lines management) thus reducing the complexity of handling fund transactions in back offices.

Counterparty risk is reduced, firstly because of the stringent customer admission policy in place at Clearstream as well as the safe financing mechanisms used to back their settlement activity (fully collateralised credit lines,..). This set-up does not eliminate the counterparty risk but it helps to create an environment geared towards minimising it.

3. Clarity of account structures

"Distributors should agree with the fund management company prior to the first transaction how they will place orders, detailing the accounts in which their investments will be held and the accounts used for settlement. This should include details of any external third parties such as custodians or depositaries with whom the distributor has contracted for such services. The fund management company should in turn provide these details to their transfer agent."

This principle does not directly apply to Clearstream but rather to its customers (or customer's customers) when they negotiate, in their role as distributor, the operational provisions of their distribution agreements. They should in that respect let the promoter (or its agent as the case maybe) know that their trades will be settling through a Clearstream account and provide them with all the details related to such an account.

4. Key identifiers

"Contractual agreements between a distributor and a fund management company should have a unique "Agreement Identifier" and (where needed) a "Local Identifier" which dictates the commercial terms to be applied in respect of all commission types. These identifiers should be quoted in all instructions relating to those agreements. The combined "Agreement and Local Identifiers" and the relevant account numbers should be included in all fund orders."

The funds processing industry suffers from a lack of consistency with respect to the set-up and the usage of unique and consistent identifiers. Each fund promoter and/or agent has its own type of so-called "agent code" to identify its commercial counterparty in its orders. Going forward, this might at least be partly solved by a wide adoption and implementation of the DMFSA (Dematerialized Mutual Funds Sales Agreements' initiative¹) proposed framework for dematerialising mutual fund sales agreements.

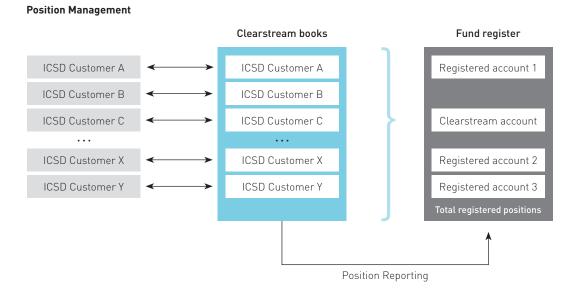
As a processing intermediary between counterparties, Clearstream ensures that the fields necessary to carry these identifiers through its system are available. Vestima⁺ has even gone one step further by maintaining on behalf of distributors all the agent codes applicable to their ordering activity for each fund in which they deal. Vestima⁺ automatically populates their orders accordingly on their behalf (which reduces the risk of errors) before sending them to the agent of the fund involved.

5. Commission reporting

"Where omnibus accounts are used, order marking or equivalent standardised position reporting mechanisms should be in place to ensure correct commission calculation. A standard format for position reporting should be developed."

Fund orders settling in Clearstream are booked by the fund agent in an omnibus account opened at the Fund Register in the name of Clearstream Banking SA. While this set-up provides a number of operational efficiencies, it prevents the Fund from viewing the positions of its customers when those positions are held in Clearstream. In order to avoid this opacity, Clearstream has developed a reporting mechanism allowing the Fund to see Clearstream positions and identify the distributor's sub-positions as illustrated by the following diagram:

1) More information about the DMFSA initiative can be found on www.dmfsa.info.



This reporting service (Fund Management Reporting Service - FMRS) consists of an electronic shareholders report disclosing all positions held by Clearstream customers in the funds involved (both on a trade and settlement date basis), so that the Fund or its appointed agent is able to calculate trailer fees applicable to these positions. This reporting is provided electronically (file download or FTP) on a monthly, weekly or daily basis (with a monthly, weekly or daily granularity). In addition, Clearstream offers a transactions report disclosing to the promoter or its agent all transactions settled in Clearstream.

The FMRS service is used by more than 200 promoters and/or fund agents.

6. Fund Processing Passport

"Fund management companies should provide a complete Fund Processing Passport (FPP) for all funds. The fund prospectus must mention where the passport can be obtained. The industry should get organised to facilitate access to and distribution of FPPs."

This principle is not applicable to Clearstream as such but rather to the fund management companies. However, Clearstream has been supporting the FPP by its participation in the EFAMA Fund Processing Standardization Group, the driver of the FPP initiative.

Furthermore, in its capacity as National Numbering Agency for Luxembourg, Clearstream has included in its published procedures for the issuance of new LU ISINs a requirement to receive an FPP in addition to the Fund prospectus. While not mandatory at this stage this is intended to evidence publicly Clearstream's support to the FPP.

7. Completeness of data throughout the intermediary chain

"The order issuer is responsible for completing the order with all information required by the transfer agent. Each intermediary must pass on complete information."

With its order routing service Vestima⁺, Clearstream consistently meets fund agents' data requirements. It stores data requirements from each agent (Clearstream knows what kind of reference agents expect to receive in orders sent to them), maintains the data (agent codes, settlement details) for order issuers and populates orders automatically on their behalf. Of course, Clearstream can only relay the information it receives from its customers, however, the processing and reporting infrastructure for doing so is available and already very widely used.

8. Acknowledgement of order receipt and confirmation of order execution

"Transfer agents should acknowledge the receipt of orders as soon as possible. They should also notify the execution of orders as soon as possible. Distributors and client side custodians should send execution confirmations to their clients only upon receipt of an execution confirmation from the transfer agent."

As a technical order routing platform, Vestima⁺ is capable of sending a technical acknowledgement for any order (or confirmation) received. Additionally, it relays immediately any acknowledgement (MT509 or equivalent) received from the fund agent to the Vestima⁺ customer as long as the agent is ready to provide such messages. Although this is not a mandatory step and Clearstream is not in a position to enforce it on transfer agents, we do encourage them in this as much as possible and, in that respect, fully support the ISSA recommendation.

Execution confirmations coming from the fund agent are immediately forwarded to the Vestima⁺ customer having initiated the order (within 45 seconds on average). It is also the receipt (and only the receipt) of the agent's confirmation which triggers the automatic generation of related settlement instructions by Vestima⁺ into the Clearstream core settlement system.

9. Flexibility of position reporting systems

"Position tracking and reporting systems used by client side and fund side intermediaries as well as central market infrastructures, should support both trade date based and settlement date based reporting."

Being a settlement infrastructure provider, the positions maintained by default in Clearstream are settled positions. However, since the implementation of the Central Facility for Funds infrastructure in 2007, Clearstream also maintains trade dated positions, which gives us the flexibility to reconcile, provide positions reporting and calculate entitlements on that basis too.

10. Transfers of holdings

"Transfers of holdings should be automated and, where possible, the distributor identifiers (combined Agreement and Local Identifier) should be included in the transfer instruction message."

Fund transfers in Clearstream are fully automated. As Clearstream maintains an omnibus position in the fund register, fund shares held by customers in Clearstream are fungible, therefore any transfer between participants is fully automated using standard ISO-compliant communication tools. Transfers are final once settled on Clearstream's books.

Transfers between customers are done exclusively on the basis of matching instructions issued by both counterparties, which avoids "dumps" of shares on a customers account.

Clearstream's instruction formats allow the instructing party to mention in its instruction the reference of an underlying distributor in the appropriate field. Clearstream is not in a position to enforce this on its customers. However, when it is done, such reference is then reported back in the transaction report mentioned under point 5 to the attention of the promoter or its agent.

For external transfers, which result in a movement – in or out of a Clearstream position in the fund register, Clearstream promotes and implements with fund agents procedures allowing such transfer to be instructed and processed electronically.

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