

# Welcome to Clearstream's Information Session

Implementation of AMI-SeCo SCoRE and ECB's ECMS

Corporate Actions

24<sup>th</sup> May 2023

[ECMS.Programme@clearstream.com](mailto:ECMS.Programme@clearstream.com)

**clearstream** | DEUTSCHE BÖRSE  
GROUP

# Agenda

- 1 Background
- 2 Revised project planning
- 3 Functional specifications – Corporate Actions
- 4 Client readiness activities
- 5 Q&A

*Revisions since the client information session held on 24/05 indicated in yellow.*

# Background

# SCoRE and ECMS

## Introduction

- **What is SCoRE and why do we need it?**
  - The Advisory Group on Market Infrastructure for Securities and Collateral (AMI-SeCo) set up the Harmonisation Subgroup (HSG) as part of the Eurosystem Single Market in Europe mandate, to foster harmonisation and integrated financial market infrastructures within the EU
  - The HSG established the Collateral Management Harmonisation Task Force (CMH-TF) to produce the Single Collateral Management Rulebook for Europe (SCoRE), initially focussing on 3 of 10 identified collateral management harmonisation areas\*: Triparty Collateral Management, Corporate Actions and Billing  
SCoRE Standards can be found here: <https://www.ecb.europa.eu/paym/intro/publications/html/index.en.html>
- **What is ECMS?**
  - For Eurosystem Central Banks, ECB's Eurosystem Collateral Management System (ECMS) will manage eligible assets as collateral in Eurosystem credit operations, thereby establishing harmonised functions and services for the Eurosystem and its counterparties
  - Full details can be found here: <https://www.ecb.europa.eu/paym/target/ecms/html/index.en.html>
- **Both initiatives will be implemented on 8 April 2024\*\***

\* Note that SCoRE Standards apply also for non-NCB collateral positions (i.e., outside of ECMS)

\*\* Note that AMI-SeCo agreed that SCoRE and ECMS should remain aligned, thereby delaying the implementation of SCoRE also to 8 April 2024

# SCoRE and ECMS

## The story so far

- **SCoRE Standards**

- Drafting started in 2017
- First publications in December 2019 for Triparty Collateral Management, Corporate Actions and Billing
- Updates published in June 2021 for Triparty Collateral Management and Billing, and December 2021 for Corporate Actions
- A further update to Corporate Actions standards is planned to be published in H1 2023

- **ECMS**

- Originally implementation date November 2022
- Revised to November 2023 in October 2020
- Revised to 8 April 2024 in December 2022. Revised test schedule releases end January 2023

- **Impacts for Clearstream and LuxCSD clients**

- SCoRE is not regulation, directive nor law. However, it does provide market practice guidelines for TCM, CA and Billing, which Clearstream and LuxCSD will comply with as far as possible
- ECMS will provide a centralized platform for Eurosystem collateral management and as such, will impact banks pledging collateral to NCBs

# SCoRE and ECMS

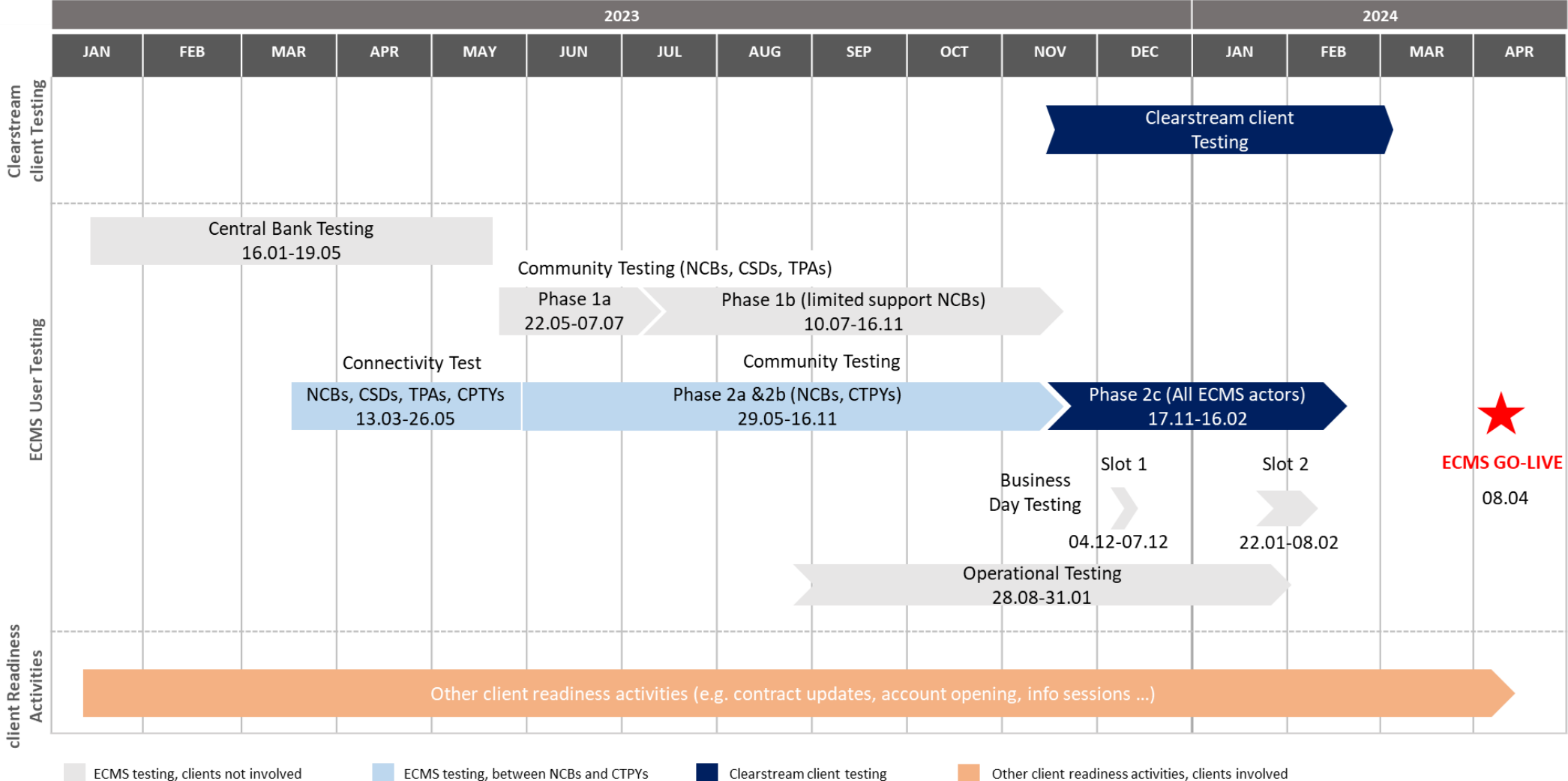
## The story so far

- **Clearstream and LuxCSD**

- Members of TCM and AS Expert Groups
- Functional Specifications for SCoRE and ECMS originally published August 2022, now updated <https://www.clearstream.com/clearstream-en/strategy-and-initiatives/integrating-with-ecms/ecms-and-score-implementation>
- Mandatory change kept to a minimum
- We are on track for the start of full community testing in November 2023, and for the go live in April 2024

# SCoRE and ECMS

## Revised project planning



# Functional Specifications – Corporate Actions



# Functional Specifications – Corporate Actions

## List of available event combinations

*This section provides details in line with SCoRE CA Standard 2: Provision of data necessary for calculation proceeds; SCoRE CA Standard 3: Consistency of information provided by issuer (I)CSDs, investor (I)CSDs and custodians.*

### Event combinations

- The event combinations (of event type, participation type and options) will be supported for both ISO 20022 and ISO 15022
- Please refer to the list of available event combinations in Appendix or in the Functional Specifications document

#### Tefra D?

The offering of the strict procedure for managing TEFRA D events, currently available on CBF side, will be decommissioned as of go live of ECMS/SCORE Standards implementation and should be removed as an option to be offered when accounts are opened

Refer to CBL handbook for further details?

# Functional Specifications – Corporate Actions

## Message format (1/3)

ISO 20022 messages will be available to clients for corporate actions and meetings/proxy voting services:

- **ISO 20022 for clients will remain optional** but there may be some updates required to associated processes and the formats of equivalent ISO 15022 messages. However, **meeting event messages are planned to be exclusively in ISO 20022 format**, in order to comply with the needs of the Shareholder Rights Directive II.
- Clearstream Banking / LuxCSD intends to minimise the impact on market participants, as far as possible, and therefore **coexistence of the ISO 15022 format will be ensured**.
- During the coexistence period, between ISO 20022 and ISO 15022, **additional coexistence rules will be applied to the incoming ISO 20022 messages** to ensure a one-to-one mapping with ISO 15022.

# Functional Specifications – Corporate Actions

## Message format (2/3)

*This section provides details in line with SCoRE CA Standard 15: Implementation of ISO20022 messages for corporate actions*

SCoRE CA/Meeting Message name	ISO 20022	ISO 15022 equivalent
Corporate Action Notification	Seev.031 (CANO)	MT564 / MT568 NEWM/REPL/RMDR
Corporate Action Event Processing Status Advice	Seev.032 (CAPS)	(MT567 EVST)*
Corporate Action Instruction	Seev.033 (CAIN)	MT565 NEWM
Corporate Action Instruction Status Advice	Seev.034 (CAIS)	MT567 INST
Corporate Action Movement Preliminary Advice	Seev.035 (CAPA)	MT564 REPE
Corporate Action Movement Confirmation	Seev.036 (CACO)	MT566 NEWM
Corporate Action Movement Reversal Advice	Seev.037 (CARE)	MT566 REVR
Corporate Action Cancellation Advice	Seev.039 (CANC)	MT564 CANC/WITH
Corporate Action Instruction Cancellation Request	Seev.040 (CAIC)	MT565 CANC
Corporate Action Instruction Cancellation Request Status Advice	Seev.041 (CACS)	MT567 CAST
Corporate Action Movement Preliminary Cancellation Advice	Seev.044 (CAPC)	MT564 ADDB

\* This message is not generated by Clearstream Banking / LuxCSD

# Functional Specifications – Corporate Actions

## Message format (3/3)

*This section provides details in line with SCoRE CA Standard 15: Implementation of ISO20022 messages for meetings*

SCoRE CA/Meeting Message name	ISO 20022	ISO 15022 equivalent
Meeting Notification	Seev.001 (MENO)	MT564 / MT568 NEWM/REPL
Meeting Cancellation	Seev.002 (MECN)	MT564 CANC/WITH
Meeting Entitlement Notification	Seev.003 (MENT)	N/A
Meeting Instruction	Seev.004 (MEIN)	MT565 NEWM
Meeting Instruction Cancellation Request	Seev.005 (MEIC)	MT565 CANC
Meeting Instruction Status	Seev.006 (MEIS)	MT567 INST/CAST
Meeting Vote Execution Confirmation	Seev.007 (MECO)	N/A
Meeting Result Dissemination	Seev.008 (MERD)	MT568
Meeting Fee Confirmation	Seev.031 (CONS MAND)	MT566

# Functional Specifications – Corporate Actions

## Corporate Action Notification (1/2)

*This section provides details in line with SCoRE CA Standard 1A: Harmonised business processes and workflows for corporate actions notification*

Impact for all clients

Impact type	Description										
CHANGE	The Safekeeping Place Type will be populated as described in the table below, for messages MT564, seev.031, seev.035 CAPA and seev.044 CAPC:										
	<table border="1"> <thead> <tr> <th>Entity</th> <th>Future (CBF, CBL and LuxCSD)</th> </tr> </thead> <tbody> <tr> <td>CBF as Issuer CSD</td> <td>“NCSD” and BICCODE of CBF (DAKVDEFFXXX)</td> </tr> <tr> <td>CBL as Issuer CSD</td> <td>“ICSD” and BICCODE of CBL (CEDELULLXXX)</td> </tr> <tr> <td>LuxCSD as Issuer CSD</td> <td>As today</td> </tr> <tr> <td>Investor CSD links</td> <td>As today</td> </tr> </tbody> </table>	Entity	Future (CBF, CBL and LuxCSD)	CBF as Issuer CSD	“NCSD” and BICCODE of CBF (DAKVDEFFXXX)	CBL as Issuer CSD	“ICSD” and BICCODE of CBL (CEDELULLXXX)	LuxCSD as Issuer CSD	As today	Investor CSD links	As today
	Entity	Future (CBF, CBL and LuxCSD)									
	CBF as Issuer CSD	“NCSD” and BICCODE of CBF (DAKVDEFFXXX)									
	CBL as Issuer CSD	“ICSD” and BICCODE of CBL (CEDELULLXXX)									
	LuxCSD as Issuer CSD	As today									
Investor CSD links	As today										

# Functional Specifications – Corporate Actions

## Corporate Action Notification (2/2)

### Impacts for ISO 20022 users

Impact type	Description
NEW	Clients may receive <b>CA Notification</b> , <b>CA Notification Replacement</b> and <b>CA Notification Reminder</b> via <b>seev.031 CANO</b> .
NEW	Clients may receive <b>CA Cancellation/Withdrawal</b> via <b>seev.039 CANC</b> .

### Impacts for ISO 15022 users

Impact type	Description
CHANGE	<p><b>Corporate Action Notification - MT564 CA including:</b></p> <ul style="list-style-type: none"> <li>▪ Change Allowed Indicator (CHAN), Withdrawal Allowed indicator (WTHD) or Revocability Period;</li> <li>▪ End of Securities Blocking Period indicator (BLOK) for all events where blocking is required;</li> <li>▪ Earliest Payment Date for cash proceeds only when payment date falls on a non-business day;</li> <li>▪ A negative sign “N” in rate field whenever the interest rate for an Interest Payment event is negative.</li> <li>▪ Maximum Quantity to Instruct.</li> </ul>
CHANGE	MT564 IPAR including <b>Earliest Payment Date</b> only when the payment date falls on a non-business day.

# Functional Specifications – Corporate Actions

## Corporate Action Instruction

*This section provides details in line with SCoRE CA Standard 1B: Harmonised business processes and workflows for corporate actions instruction*

### Impacts for ISO 20022 users

Impact type	Description
NEW	Clients may send <b>CA Instruction</b> via <b>seev.033 CAIN</b> .
NEW	Clients may send <b>CA Instruction Cancellation Request</b> via <b>seev.040 CAIC</b> .
NEW	If a CA Instruction has been received by Clearstream Banking / LuxCSD, clients may receive a <b>CA Instruction Status Advice</b> via <b>seev.034 CAIS</b> . If no CA Instruction has been received by Clearstream Banking / LuxCSD (that is, the default option is chosen when no action is taken by clients), clients may receive a <b>CA Instruction Status Advice</b> via <b>seev.034 CAIS</b> at the end of the exercise period (indicating “ <b>DFLA Default Action</b> ”), upon subscription only.
NEW	Clients may receive <b>CA Instruction Cancellation Request Status Advice</b> via <b>seev.041 CACS</b> .

### Impacts for ISO 15022 users

Impact type	Description
NEW	If no CA Instruction has been received (that is, the default option is chosen when no action is taken by clients), clients may receive a <b>CA Instruction Status Advice</b> via <b>MT567 INST</b> , at the end of the exercise period (“ <b>DFLA Default Action</b> ”) if they are subscribed to it.

# Functional Specifications – Corporate Actions

## Corporate Action Advice

*This section provides details in line with SCoRE CA Standard 1C: Harmonised business processes and workflows for corporate actions advice*

Impacts for ISO 20022 users

Impact type	Description
NEW	<p>Clients may receive <b>NEWM</b> and <b>REPL</b> as movement preliminary advice via <b>seev.035 CAPA</b>.</p> <p>CAPA messages:</p> <ul style="list-style-type: none"><li>▪ will be available at end of record date (that is, end of business day of the relevant settlement system), <b>upon subscription only</b>.</li><li>▪ will include the field “Safekeeping Place Type”.</li></ul>
NEW	<p>Clients may receive incoming <b>seev.044 CAPC message for CA movement preliminary advice cancellation advice</b>. This may be sent when the CA is cancelled and the resulting entitlement is reduced to zero, or a previously announced reversal has been cancelled.</p>



# Functional Specifications – Corporate Actions

## Corporate Action Confirmation

*This section provides details in line with SCoRE CA Standard 1D: Harmonised business processes and workflows for corporate actions confirmation*

### Impacts for ISO 20022 users

Impact type	Description
NEW	Clients may receive <b>CA movement confirmation via seev.036 CACO</b> including a ‘ <b>Safekeeping Place Type</b> ’ field.
NEW	Clients may receive <b>CA event processing status advice via seev.032</b> including a ‘ <b>Safekeeping Place Type</b> ’ field. These impacts also cover the requirement for CA Standard 9.
NEW	Once the resulting proceeds of the CA event have been credited/debited to/from clients’ accounts, clients may <b>receive CA Movement Confirmation via seev.036</b> .
NEW	Clients may receive a <b>credit/debit confirmation</b> via camt.054.

### Impacts for ISO 15022 users

Impact type	Description
CHANGE	Corporate Action Confirmation - MT566 CA. Rate field will now include a <b>negative sign “N”</b> whenever the interest rate for an Interest Payment event is negative.

# Functional Specifications – Corporate Actions

## Reversal of Corporate Action (1/3)

*This section provides details in line with SCoRE CA Standard 1E: Harmonised business processes and workflows for reversal of corporate actions; SCoRE CA Standard 13: Reversal of a corporate action*

Impacts for ISO 20022 users

Impact type	Description
NEW	Clients may receive a <b>reversal notification mentioning the Reversal Reason via Movement Preliminary Advice seev.035 CAPA</b> . Note: in order to distinguish between the CAPA message sent for reversal advice and the CAPA message sent for CA entitlement, clients should refer to the presence of the field “reversal reason”.
NEW	Clients may receive a <b>cancellation of a reversal notification via Movement Preliminary Advice Cancellation Advice seev.044 CAPC</b> .
NEW	Clients may receive a <b>confirmation of reversal via Movement Reversal Advice seev.037 CARE</b> mentioning the reversal reason.
NEW	Clients may receive a <b>credit/debit confirmation</b> via camt.054.

# Functional Specifications – Corporate Actions

## Reversal of Corporate Action (2/3)

*This section provides details in line with SCoRE CA Standard 1E: Harmonised business processes and workflows for reversal of corporate actions; SCoRE CA Standard 13: Reversal of a corporate action*

Impacts for ISO 20022 users

Impact type	Description																
NEW	<p>The reversal pre-advice message shall include information on the reason for the reversal. A list of possible reversal reasons are included in the table below:</p> <table border="1"> <thead> <tr> <th data-bbox="359 776 1054 808">Reason</th> <th data-bbox="1054 776 2423 808">Reason Code</th> </tr> </thead> <tbody> <tr> <td data-bbox="359 829 1054 861">Day Count Basis Difference</td> <td data-bbox="1054 829 2423 861">DCBD</td> </tr> <tr> <td data-bbox="359 882 1054 913">Incorrect Value Date</td> <td data-bbox="1054 882 2423 913">IVAD</td> </tr> <tr> <td data-bbox="359 935 1054 966">Incorrect <b>Record</b> Date</td> <td data-bbox="1054 935 2423 966">IRED</td> </tr> <tr> <td data-bbox="359 988 1054 1019">Incorrect Price</td> <td data-bbox="1054 988 2423 1019">IRPI</td> </tr> <tr> <td data-bbox="359 1041 1054 1072">Undue Payment</td> <td data-bbox="1054 1041 2423 1072">UPAY</td> </tr> <tr> <td data-bbox="359 1093 1054 1125">Incorrect Event Level Tax Rate</td> <td data-bbox="1054 1093 2423 1125">IETR</td> </tr> <tr> <td data-bbox="359 1146 1054 1178">Incorrect Payment Currency</td> <td data-bbox="1054 1146 2423 1178">IPCU</td> </tr> </tbody> </table>	Reason	Reason Code	Day Count Basis Difference	DCBD	Incorrect Value Date	IVAD	Incorrect <b>Record</b> Date	IRED	Incorrect Price	IRPI	Undue Payment	UPAY	Incorrect Event Level Tax Rate	IETR	Incorrect Payment Currency	IPCU
Reason	Reason Code																
Day Count Basis Difference	DCBD																
Incorrect Value Date	IVAD																
Incorrect <b>Record</b> Date	IRED																
Incorrect Price	IRPI																
Undue Payment	UPAY																
Incorrect Event Level Tax Rate	IETR																
Incorrect Payment Currency	IPCU																

# Functional Specifications – Corporate Actions

## Reversal of Corporate Action (3/3)

Impact for ISO 15022 users

Impact type	Description
<b>CHANGE</b>	The <b>Claim and Reversal Advice (CRA) report will be updated</b> to cover all supported CA event type entitlement reversals, plus any additional event type combination mentioned in section “List of available event combinations” of this document.

This process also covers the reversal of retrocession payments for Triparty Collateral Management positions.

# Functional Specifications – Corporate Actions

## Rounding Rules

*This section provides details in line with SCoRE CA Standard 4: Rounding rules*

Impact type	Description
CHANGE	<p><b>Rounding down will now be applied</b> Rounding down will now be applied on the gross amount resulting from a corporate actions cash payment (versus commercial rounding). This is without prejudice to the potential application of other rounding rules when Clearstream Banking / LuxCSD acts as the last intermediary in the holding chain (e.g., as tax agent for DE ISINs). In the cases where Clearstream Banking / LuxCSD is acting as tax agent, Clearstream Banking / LuxCSD will continue to apply the current rounding rules required by the respective tax authorities, i.e., no change for these rules as these depend on the current guidance of the tax authorities - e.g., for some elements of the German withholding tax calculations that would continue to be rounded up (KESt.), while rounding down will be applied for the solidarity tax (SolZ).</p>

# Functional Specifications – Corporate Actions

## Negative Cash Flows

*This section provides details in line with SCoRE CA Standard 5: Negative cash flows*

Impact type	Description
NEW	<p>For both Issuer CSD and Investor CSD business:</p> <ul style="list-style-type: none"><li>▪ <b>Securities with a fixed negative interest rate are not eligible in Clearstream Banking / LuxCSD and this condition is already part of the current acceptance process. If such security is accepted by error, its acceptance will be revoked, and the security should be removed.</b></li><li>▪ <b>Securities with floating interest rate resulting in a negative coupon amount cannot be identified during the acceptance phase. In the case of occurrence, the payment will be floored at zero.</b></li><li>▪ <b>The only negative coupons that will be processed are those of Danish Securities, paid simultaneously with PCAL events (i.e., INTR/PCAL linked events), and resulting in no net negative cash flow. This applies to both fixed interest rate instruments and floating interest rate instruments.</b></li></ul>

# Functional Specifications – Corporate Actions

## Business Day Rule (1/2)

*This section provides details in line with SCoRE CA Standard 6: Business day rule*

Impact type	Description
CHANGE	<p><b>SCoRE compliant business day conventions:</b></p> <ul style="list-style-type: none"> <li>▪ Following Unadjusted.</li> <li>▪ Following Adjusted.</li> <li>▪ Modified Following Adjusted.</li> </ul> <p><b>CBF / LuxCSD issued securities:</b></p> <ul style="list-style-type: none"> <li>▪ For newly issued securities, only those compliant with SCoRE business day conventions will be eligible in CBF and LuxCSD.</li> <li>▪ For existing securities, no change compared to today. CBF / LuxCSD will continue to accept existing securities, irrespective of the business day convention being used</li> </ul> <p>No change to CBF / LuxCSD acceptance rules for investor CSD securities. The compliance to this standard should be ensured by the domestic issuer CSD</p> <p><b>CBL issued securities:</b></p> <p>As business day convention is not part of today's eligibility criteria in CBL, CBL will continue to accept securities with any business day convention.</p>

# Functional Specifications – Corporate Actions

## Business Day Rule (2/2)

*This section provides details in line with SCoRE CA Standard 6: Business day rule*

Impact type	Description
CHANGE	<p>Please be reminded that for international securities held in T2S, the Corporate Actions cash proceeds shall be paid in central bank money, and therefore cannot be processed under Modified Following Unadjusted, Modified Previous Unadjusted, or Previous Unadjusted conventions. In such cases, those proceeds will always be paid on the following business day.</p> <p>In addition, in the absence of a business day convention specified in the Terms &amp; Conditions of the issue, Clearstream Banking / LuxCSD will apply the following rules by default:</p> <ul style="list-style-type: none"> <li>▪ Following Unadjusted for fixed rate notes</li> <li>▪ Following Adjusted for floating rate notes</li> </ul> <p>Only securities issued with one of the three SCoRE compliant business day conventions will be eligible for ECMS collateral management activity.</p>



# Functional Specifications – Corporate Actions

## Payment time and notification of processing status

*This section provides details in line with SCoRE CA Standard 8: Payment time; SCoRE CA Standard 9: Notification of processing status*

Impact type	Description
<b>NEW</b>	<p>Only for events with a known due date (for example, payment date, settlement date, or value date), from the due date until the Event Processing Status for the respective corporate action is complete or until a grace period of 30 days after the payment date has been reached, the CA Event Processing Status Advice (seev.032) for any given proceeds should be sent as follows:</p> <p>For the first message, this must be sent to clients either:</p> <ul style="list-style-type: none"> <li>▪ immediately upon receipt of a CA Event Processing Status Advice from the issuer/agent, Issuer CSD, depository or local partner, or if any issues arise at Clearstream Banking / LuxCSD which impact the payment of CA proceeds; Or</li> <li>▪ if no information has already been sent, according to the following schedule:</li> </ul>
	<p><b>At 9:15</b></p> <ul style="list-style-type: none"> <li>▪ For events paying cash, cash and securities or securities only (for the Investor CSD model only), denominated in currencies operating in time zones C (GMT+3) to M (GMT+12) where cash and/or securities proceeds have not been paid to clients by 09:00; Or</li> <li>▪ For events paying securities only (for the Issuer CSD model only), where securities proceeds have not been paid to clients by 09h00.</li> </ul>
	<p><b>At 12:15</b></p> <ul style="list-style-type: none"> <li>▪ For events paying cash, or cash and securities denominated in currencies operating in time zones Z (GMT+0) to B (GMT+2) where cash and/or securities proceeds have not been paid to clients by 12:00; Or</li> <li>▪ For events paying securities only, where securities proceeds have not been paid to clients by 12:00.</li> </ul>
	<p><b>At 16:45</b></p> <ul style="list-style-type: none"> <li>▪ For events paying cash, cash and securities or securities only (for the Investor CSD model only), denominated in currencies operating in time zones N (GMT-1) to Y (GMT-12) where cash and/or securities proceeds have not been paid to clients by 16:30.</li> </ul>
	<p>For subsequent messages, immediately upon receipt of a CA Event Processing Status Advice from the other parties.</p>

# Functional Specifications – Corporate Actions

## Elective Events (1/2)

*This section provides details in line with SCoRE CA Standard 10: Elective events*

Impact type	Description
NEW	<p>“End of Securities Blocking Period” will be systematically populated in the corporate action notification message whenever the corporate action event requires a debit of the basis security in the case of reorganisation events.</p> <p>Upon receipt of an election instruction for an option that was announced with a notification containing “End of Blocking Period”, Clearstream Banking / LuxCSD will block the instructed quantity from the time such instruction has been processed until the date described by the “End of Blocking Period” or until the debit of securities is effective for reorganisation events.</p>
NEW	<p>“End of Securities Blocking Period” will be populated with the code ”PAYD“ or the value of the pay date, to be understood that blocking of relevant balances will be applied until actual payment of the debit of securities for the respective event has taken place.</p> <p>If an event has different payment dates (for example, for cash and securities), then “NARR” may be used in the “End of Securities Blocking” field and the Narrative field will specify which dates will be the unblocking date for each specific entitlement.</p> <p>If a specific date and / or time is available (for example, for meeting events), the “NARR” field may be populated with that date / time.</p>

# Functional Specifications – Corporate Actions

## Elective Events (2/2)

Impact type	Description		
NEW	<p>Blocking should be implemented and therefore the “EndOfSciesBlckgPrd” field should be populated for event combinations where either of the following criteria is met:</p> <ul style="list-style-type: none"> <li>▪ the CA event / participation type is mandatory with choice (CHOS); or</li> <li>▪ the CA event / participation type is voluntary (VOLU)</li> </ul> <p>The above is applicable only in the case of events which involve debit of basis security.</p> <p>Blocking will also be applied also for the following Event Type / Participation Type / Option combinations that are not in scope of the SCoRE CA standards but are supported by Clearstream Banking / LuxCSD and follow the generic rule for blocking (CHOS/VOLU events with debit of securities) or where fees may be payable (for the CONY / CONN / ABST options) if blocking is required by the issuer / issuer agent / market practice:</p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>▪ BIDS VOLU (SECU/CONY/CONN/ABST)</li> <li>▪ DTCH VOLU SECU</li> <li>▪ EXOF VOLU SLLE</li> <li>▪ EXOF CHOS SLLE</li> <li>▪ EXRI CHOS SLLE</li> <li>▪ EXWA VOLU SLLE</li> </ul> </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>▪ MRGR CHOS SLLE</li> <li>▪ ODLT VOLU SLLE</li> <li>▪ OTHR CHOS (OTHR/EXER/ABST/CEXC/CONN/CONY/CASE/CASH/SECU)</li> <li>▪ OTHR VOLU (OTHR/EXER/ABST/CEXC/CONN/CONY/CASE/CASH/SECU)</li> <li>▪ TEND VOLU (CTEN/CONY/CONN/ABST)</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>▪ BIDS VOLU (SECU/CONY/CONN/ABST)</li> <li>▪ DTCH VOLU SECU</li> <li>▪ EXOF VOLU SLLE</li> <li>▪ EXOF CHOS SLLE</li> <li>▪ EXRI CHOS SLLE</li> <li>▪ EXWA VOLU SLLE</li> </ul>	<ul style="list-style-type: none"> <li>▪ MRGR CHOS SLLE</li> <li>▪ ODLT VOLU SLLE</li> <li>▪ OTHR CHOS (OTHR/EXER/ABST/CEXC/CONN/CONY/CASE/CASH/SECU)</li> <li>▪ OTHR VOLU (OTHR/EXER/ABST/CEXC/CONN/CONY/CASE/CASH/SECU)</li> <li>▪ TEND VOLU (CTEN/CONY/CONN/ABST)</li> </ul>
<ul style="list-style-type: none"> <li>▪ BIDS VOLU (SECU/CONY/CONN/ABST)</li> <li>▪ DTCH VOLU SECU</li> <li>▪ EXOF VOLU SLLE</li> <li>▪ EXOF CHOS SLLE</li> <li>▪ EXRI CHOS SLLE</li> <li>▪ EXWA VOLU SLLE</li> </ul>	<ul style="list-style-type: none"> <li>▪ MRGR CHOS SLLE</li> <li>▪ ODLT VOLU SLLE</li> <li>▪ OTHR CHOS (OTHR/EXER/ABST/CEXC/CONN/CONY/CASE/CASH/SECU)</li> <li>▪ OTHR VOLU (OTHR/EXER/ABST/CEXC/CONN/CONY/CASE/CASH/SECU)</li> <li>▪ TEND VOLU (CTEN/CONY/CONN/ABST)</li> </ul>		

# Client Readiness Activities

# Client Readiness Activities Overview

ECMS - SCoRE Business Readiness Planning	2023											2024				
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	

### Project Timeline 2023-2024

Overall project	[Active]															
Specification phase	[Active]															
Client testing											[Active]					
Implementation														[Active]		

### Client Readiness

<b>Client Information Sessions</b>				Introduction/Funct. Specs.				Testing				Migration				
<b>Client Functional Documentation</b>																
Detailed functional specifications (CBL/CBF/LuxCSD)	[Active]															
Issuer impacts	[Active]															
<b>Client Testing</b>																
Detailed test guide							[Active]									
Testing registration and set up							[Active]									
<b>Migration and Launch Preparation</b>																
Migration guide												[Active]				
<b>Post Migration</b>																
Client handbooks and other documentation														[Active]		
Client queries handling via ECMS.Programme@clearstream.com	[Active]															

# Misc and Q&As



# Thank you for your attention!

Questions can be always raised via email:

[ECMS.Programme@clearstream.com](mailto:ECMS.Programme@clearstream.com)

## ECMS Programme

Clearstream Banking AG  
Mergenthalerallee 61  
65760 Eschborn  
Germany

LuxCSD S.A.  
42, Avenue J.F. Kennedy  
L-1855 Luxembourg  
Luxembourg

Clearstream Banking S.A.  
42 Avenue JF Kennedy  
L-1855 Luxembourg  
Luxembourg

# Appendix



# ECMS client Readiness

## List of available event combinations (1/8)

CA Event ID (CAEV)	CA Event Participation Type (CAMV)	CA Event Options (COAP)
ACCU	MAND	CASH
ACTV	MAND	N/A
BIDS	VOLU	CASH
BIDS	VOLU	CTEN
BIDS	VOLU	NOAC
BMET	VOLU	CAGS
BMET	VOLU	CFOR
BMET	VOLU	ABST
BMET	VOLU	NOAC
BMET	VOLU	WMGT
BMET	VOLU	AMGT

BMET	VOLU	WTHH
BMET	VOLU	ONEY
BMET	VOLU	TWOY
BMET	VOLU	THRY
BMET	VOLU	BLNK
BMET	VOLU	CHRM
BMET	VOLU	DISC
BONU	MAND	SECU
BONU	CHOS	SECU
BONU	CHOS	CASH
BPUT	VOLU	CASH
BPUT	VOLU	NOAC
BRUP	MAND	N/A

# ECMS client Readiness

## List of available event combinations (2/8)

*\*Clearstream Banking / LuxCSD plans to decommission the strict certification procedure for the German market using settlement messages and allowing only the standardised processing using the TEFRA D CERT event.*

<b>CAPD</b>	MAND	CASH
<b>CAPG</b>	MAND	CASH
<b>CAPI</b>	MAND	N/A
<b>CERT*</b>	CHOS	QINV
<b>CERT*</b>	CHOS	NOQU
<b>CHAN</b>	MAND	N/A
<b>CHAN</b>	MAND	SECU
<b>CMET</b>	VOLU	CAGS
<b>CMET</b>	VOLU	CFOR
<b>CMET</b>	VOLU	ABST
<b>CMET</b>	VOLU	NOAC
<b>CMET</b>	VOLU	WMGT
<b>CMET</b>	VOLU	AMGT
<b>CMET</b>	VOLU	WTHH
<b>CMET</b>	VOLU	ONEY
<b>CMET</b>	VOLU	TWOY
<b>CMET</b>	VOLU	THRY
<b>CMET</b>	VOLU	BLNK

<b>CMET</b>	VOLU	CHRM
<b>CMET</b>	VOLU	DISC
<b>CONS</b>	VOLU	CONN
<b>CONS</b>	VOLU	CONY
<b>CONS</b>	VOLU	ABST
<b>CONS</b>	VOLU	NOAC
<b>CONV</b>	MAND	SECU
<b>CONV</b>	VOLU	CASE
<b>CONV</b>	VOLU	CASH
<b>CONV</b>	VOLU	SECU
<b>CONV</b>	VOLU	NOAC
<b>CREV</b>	MAND	N/A
<b>DECR</b>	MAND	N/A
<b>DECR</b>	MAND	CASH
<b>DFLT</b>	MAND	N/A
<b>DLST</b>	MAND	N/A
<b>DRAW</b>	MAND	CASH
<b>DRCA</b>	MAND	CASH

# ECMS client Readiness

## List of available event combinations (3/8)

<b>DRIP</b>	CHOS (interim)	SECU
<b>DRIP</b>	CHOS (interim)	CASH
<b>DACL</b>	VOLU	CONY
<b>DACL</b>	VOLU	CONN
<b>DACL</b>	VOLU	NOAC
<b>DTCH</b>	VOLU	CASH
<b>DTCH</b>	VOLU	NOAC
<b>DVCA</b>	MAND	CASH
<b>DVCA</b>	CHOS (for currency choice only)	CASH
<b>DVOP</b>	CHOS (interim)	SECU
<b>DVOP</b>	CHOS (interim)	CASH
<b>DVSE</b>	MAND	SECU
<b>EXOF</b>	VOLU	SECU
<b>EXOF</b>	VOLU	CASH
<b>EXOF</b>	VOLU	CASE
<b>EXOF</b>	VOLU	CEXC
<b>EXOF</b>	VOLU	NOAC
<b>EXOF</b>	MAND	SECU

<b>EXOF</b>	MAND	CASH
<b>EXOF</b>	MAND	CASE
<b>EXOF</b>	CHOS	SECU
<b>EXOF</b>	CHOS	CASH
<b>EXOF</b>	CHOS	CASE
<b>EXRI</b>	CHOS	EXER
<b>EXRI</b>	CHOS	LAPS
<b>EXRI</b>	CHOS	OVER
<b>EXTM</b>	MAND	N/A
<b>EXTM</b>	MAND	SECU
<b>EXTM</b>	CHOS	SECU
<b>EXTM</b>	CHOS	MPUT
<b>EXWA</b>	MAND	EXER (Call Securities)
<b>EXWA</b>	MAND	EXER (Call Cash)
<b>EXWA</b>	MAND	LAPS
<b>EXWA</b>	CHOS	EXER (Call Securities)
<b>EXWA</b>	CHOS	EXER (Call Cash)
<b>EXWA</b>	CHOS	LAPS

# ECMS client Readiness

## List of available event combinations (4/8)

<b>EXWA</b>	VOLU	EXER (Call Securities)
<b>EXWA</b>	VOLU	EXER (Call Cash)
<b>EXWA</b>	VOLU	NOAC
<b>GMET</b>	VOLU	CAGS
<b>GMET</b>	VOLU	CFOR
<b>GMET</b>	VOLU	ABST
<b>GMET</b>	VOLU	NOAC
<b>GMET</b>	VOLU	WMGT
<b>GMET</b>	VOLU	AMGT
<b>GMET</b>	VOLU	WTHH
<b>GMET</b>	VOLU	ONEY
<b>GMET</b>	VOLU	TWOY
<b>GMET</b>	VOLU	THRY
<b>GMET</b>	VOLU	BLNK
<b>GMET</b>	VOLU	CHRM
<b>GMET</b>	VOLU	DISC
<b>INCR</b>	MAND	N/A
<b>INFO</b>	MAND	N/A

<b>INTR</b>	MAND	CASH
<b>INTR</b>	CHOS (only for currency option)	CASH
<b>LIQU</b>	MAND	CASH
<b>LIQU</b>	MAND	SECU
<b>LIQU</b>	MAND	CASE
<b>MCAL</b>	MAND	CASH
<b>MRGR</b>	MAND	SECU
<b>MRGR</b>	MAND	CASE
<b>MRGR</b>	CHOS	SECU
<b>MRGR</b>	CHOS	CASE
<b>MRGR</b>	CHOS	CASH
<b>ODLT</b>	VOLU	CASH
<b>ODLT</b>	VOLU	SECU
<b>ODLT</b>	VOLU	NOAC
<b>OTHR</b>	MAND	N/A
<b>OTHR</b>	VOLU	N/A
<b>OTHR</b>	CHOS	N/A
<b>PARI</b>	MAND	SECU

# ECMS client Readiness

## List of available event combinations (5/8)

<b>PCAL</b>	MAND	CASH
<b>PINK</b>	MAND	SECU
<b>PLAC</b>	MAND	N/A
<b>PPMT</b>	MAND	SECU
<b>PRED</b>	MAND	CASH
<b>PRIO</b>	VOLU	SECU
<b>PRIO</b>	VOLU	OVER
<b>PRIO</b>	VOLU	NOAC
<b>REDM</b>	MAND	CASH
<b>REDM</b>	MAND	SECU (Relevant for reverse convertibles & equity-linked notes only)
<b>REDM</b>	CHOS (only for currency option)	CASH
<b>REMK</b>	CHOS	SECU
<b>REMK</b>	CHOS	CASH
<b>RHDI</b>	MAND	SECU
<b>SHPR</b>	MAND	CASH
<b>SOFF</b>	MAND	SECU
<b>SPLF</b>	MAND	SECU

<b>SPLR</b>	MAND	SECU
<b>SUSP</b>	MAND	N/A
<b>TEND</b>	VOLU	SECU
<b>TEND</b>	VOLU	CASE
<b>TEND</b>	VOLU	CASH
<b>TEND</b>	VOLU	NOAC
<b>TEND</b>	MAND (for equities only)	SECU
<b>TEND</b>	MAND (for equities only)	CASE
<b>TEND</b>	MAND (for equities only)	CASH
<b>TREC</b>	VOLU	CASH
<b>TREC</b>	VOLU	NOAC
<b>WRTH</b>	MAND	LAPS
<b>WTRC</b>	VOLU	NOAC
<b>WTRC</b>	VOLU	BOBD
<b>XMET</b>	VOLU	CAGS
<b>XMET</b>	VOLU	CFOR
<b>XMET</b>	VOLU	ABST
<b>XMET</b>	VOLU	NOAC

# ECMS client Readiness

## List of available event combinations (6/8)

<b>XMET</b>	VOLU	WMGT
<b>XMET</b>	VOLU	AMGT
<b>XMET</b>	VOLU	WTHH
<b>XMET</b>	VOLU	ONEY
<b>XMET</b>	VOLU	TWOY
<b>XMET</b>	VOLU	THRY
<b>XMET</b>	VOLU	BLNK
<b>XMET</b>	VOLU	CHRM
<b>XMET</b>	VOLU	DISC

# ECMS client Readiness

## List of available event combinations (7/8)

*Please note that the following event combinations will not be supported:*

CA Event ID (CAEV)	CA Event Participation Type (CAMV)	CA Event Options (COAP)	Comments
BONU	CHOS	LAPS	Clearstream Banking / LuxCSD will use option CASH CHOS
CAPD	CHOS (used when a currency choice is offered)	CASH	Clearstream Banking / LuxCSD will use DVCA CHOS
CAPG	CHOS	CASH	Clearstream Banking / LuxCSD will use DVCA CHOS
DECR	MAND	SECU	Clearstream Banking / LuxCSD will use SPLR when the number of securities is reduced
DECR	CHOS (for currency conversion option only)	CASH	Clearstream Banking / LuxCSD will use DVCA CHOS
DSCL	MAND	CONY	This is already supported but only as an informative template
DVSC	MAND	SECU	Clearstream Banking / LuxCSD will use BONU or DVSE
INCR	MAND	SECU (for equities only)	Depending on the content, Clearstream Banking / LuxCSD may issue a CHAN if no amount is credited, or BONU if an amount is credited
LIQU	CHOS	CASH	<ul style="list-style-type: none"> <li>For interim liquidation, distribution will be mapped to DVCA CHOS CASH</li> <li>For final liquidation, distribution will be mapped to EXOF CHOS CASH</li> </ul>
LIQU	CHOS	SECU	<ul style="list-style-type: none"> <li>for interim liquidation, distribution will be mapped to SOFF CHOS SECU</li> <li>for final liquidation, distribution will be mapped to EXOF CHOS SECU</li> </ul>

# ECMS client Readiness

## List of available event combinations (8/8)

<b>LIQU</b>	CHOS	CASE	<ul style="list-style-type: none"> <li>for interim liquidation, distribution will be mapped to SOFF CHOS CASE</li> <li>for final liquidation, distribution will be mapped to EXOF CHOS CASE</li> </ul>
<b>PINK</b>	MAND	OTHR	Clearstream Banking / LuxCSD will use option SECU
<b>PLAC</b>	MAND	SECU	Clearstream Banking / LuxCSD will use EXOF SECU if a security exchange is involved
<b>PPMT</b>	CHOS	LAPS	Clearstream Banking / LuxCSD will transform into PPMT MAND
<b>PPMT</b>	CHOS	SECU	Clearstream Banking / LuxCSD will use OTHR/CHOS/SECU instead
<b>REDO</b>	MAND	N/A	If no change of ISIN, REDO will be sent as informative event and all changes will be processed via settlement flows. In case of a change of ISIN, processing will take place as CHAN with option SECU
<b>REDO</b>	MAND	SECU	If no change of ISIN, REDO will be sent as informative event and all changes will be processed via settlement flows. In case of a change of ISIN, processing will take place as CHAN with option SECU