



Euronext – Becoming the reference in CA standardization and ISO harmonization



EURONEXT SECURITIES

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Creating the foundation

Harmonization and standardization

CA4U initiative key objectives

Our ambition is to work on a common solution based on below objectives

Key Objectives

How it will be achieved

Increase client satisfaction



Shorten time to market for new services

Reduce operational risk



Use new systems to automate and improve daily operations

Modernize the legacy systems



Reshape current CA system and billing engine

Avoid investing multiple times for common regulatory changes



Streamline services to increase product development to fulfil clients needs

Rebalance ratio of regulatory / product development



Align with international standards (SCoRE, CAJWG...)

Maintain CSDs international competitiveness



Implementation Timeline

Main Objective

Single common Corporate Actions platform across all CSDs for all asset classes




Market-by-Market implementation



Phase migration, onboarding of various asset classes and CSDs in future phases.

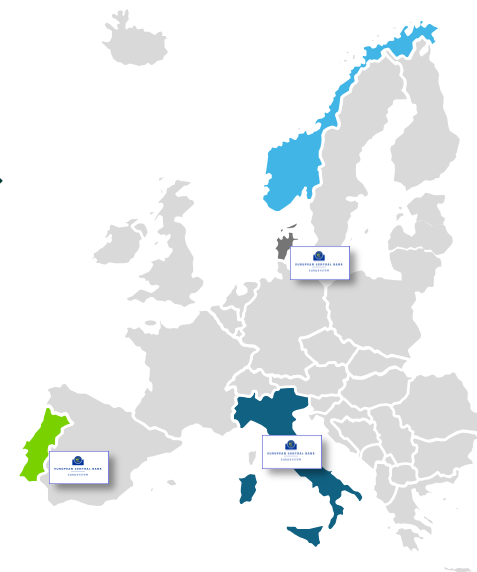
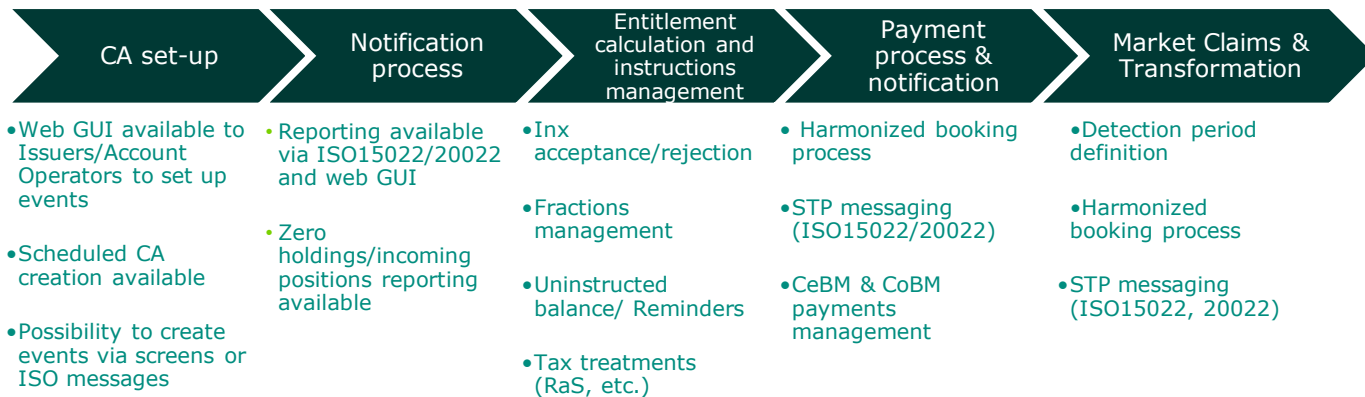


First goal of ensuring compliance with the SCoRE standards and manage project risks.

	2022	2023	2024	2025
ES Porto	<i>Phase 1</i>	SCoRE CA standards compliance Fixed Income - Common CA platform 	<div style="border: 1px solid black; padding: 10px;"> <i>Phase 2 – ES Porto / Copenhagen / Oslo</i> All assets in single common CA platform </div>	
ES Copenhagen		SCoRE CA standards compliance Fixed Income - Common CA platform 		
ES Oslo	<div style="background-color: #008080; color: white; padding: 5px; text-align: center;"> ES Oslo (Multi-step Market Consultations) </div>			
ES Milan		SCoRE CA standards compliance All Asset classes – Existing platform 	<div style="border: 1px solid black; padding: 10px;"> <i>Phase 3 – ES Milan</i> All assets in single common CA platform </div>	

Standardize and harmonize Corporate Events processes across all our markets

The goal is to standardize and harmonize the lifecycle of each Corporate Event across all CSDs, regarding Issuer and Investor CSD services. In particular, the harmonization will cover all CA* processes and underlying connectivity means:



*A corporate action (**CA**) is defined as an action or event decided by the issuer of a security which has an impact on the holders of that security. Participation in the CA event may be optional, in which case holders have a choice. Alternatively, participation may be mandatory, in which case holders have no choice.

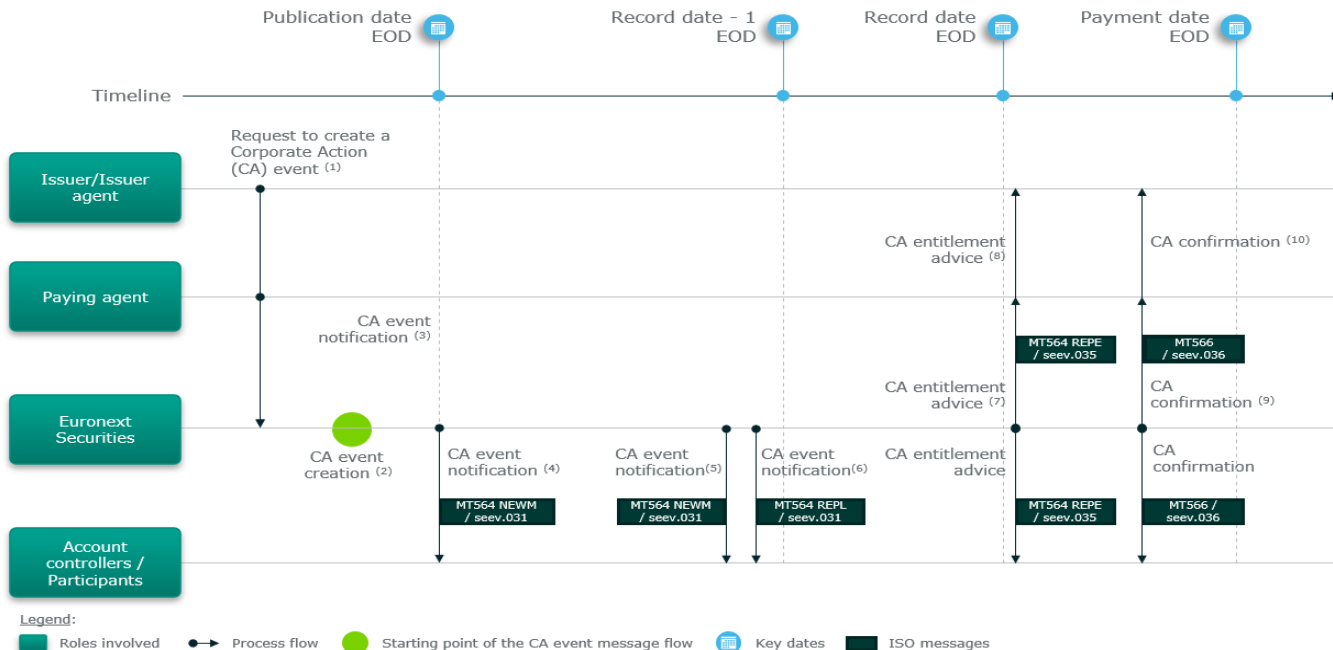
Corporate Actions Strategic Aims

Foster benefits for the clients, and removal of cross-border barriers

U2A	Same interfaces across Euronext Securities
A2A	Harmonised ISO 15022 and 20022
A2A	Single MyStandards common to Euronext Securities
U2A & A2A	Full harmonisation within Euronext Securities
Standards	CAJWG, SCoRE, CASG, SHID full compliance
Non standards	Harmonised interaction (e.g. issuer / paying agent)
Operations	Strengthen operational resilience
Tax	Support tax and fiscal services
Cash management	CeBM and CoBM coverage
Currencies	More than 18 supported currencies (4 in CeBM)
Infrastructure	One common infrastructure
General meeting	Support ESG goals (e.g. Virtual General Meeting)

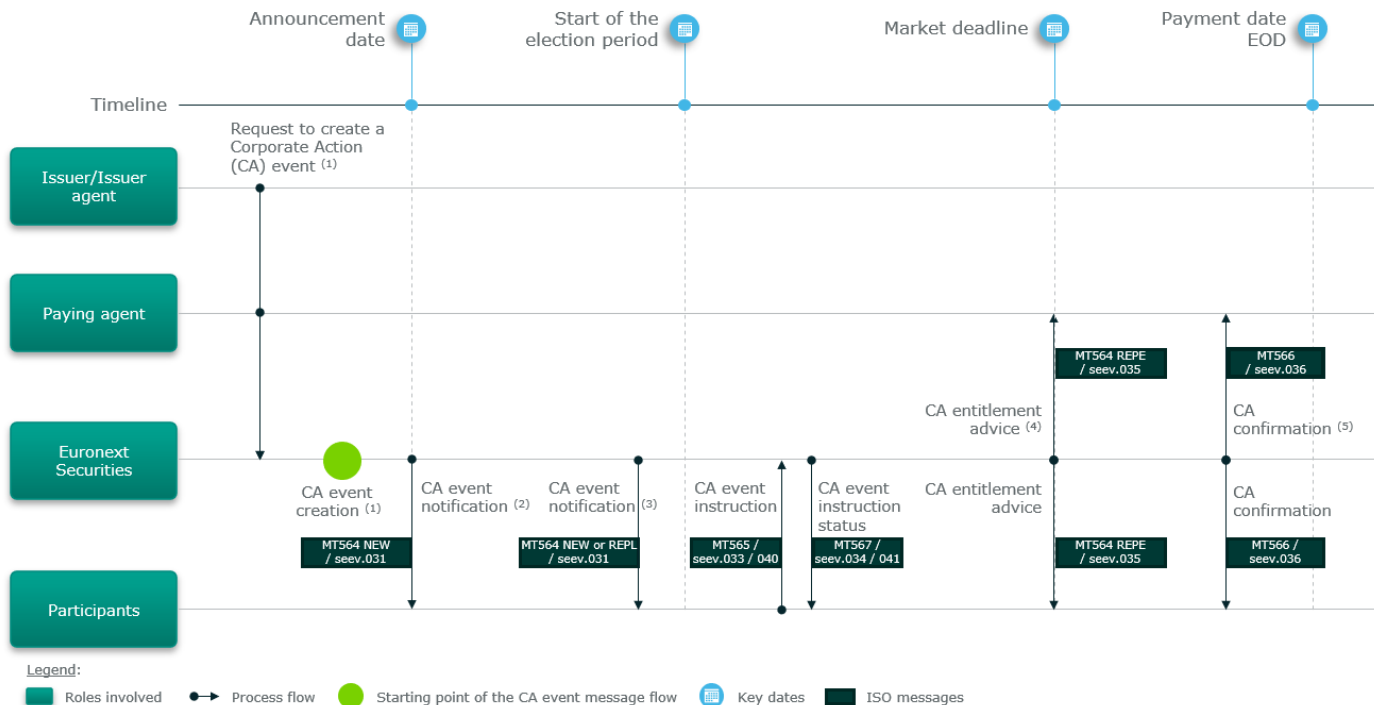
Example of standardized mandatory CA processing

Here's an example of a mandatory corporate action event management, relative messages flows and the interaction with the different actors involved.



Example of standardized elective CA processing

Here's an example of a elective corporate action event management and the interaction with the different actors involved.





Single Collateral Management Rulebook for Europe: SCoRE

Harmonization and standardization

Collateral management harmonisation

What is SCoRE?

SCoRE is a Single Collateral Management Rulebook for Europe, which defines common rules for managing collateral.

Benefits



Improvements

- Creation of a single Rulebook
- Based on international messaging standards
- Enabling straight through processing (STP)
- Facilitating interoperability
- Increase availability of collateral



Harmonised processes

The harmonised processes will make it easier for participants, banks and investors to buy and move securities safely and efficiently without restrictions in Europe and use them as collateral.

ECMS

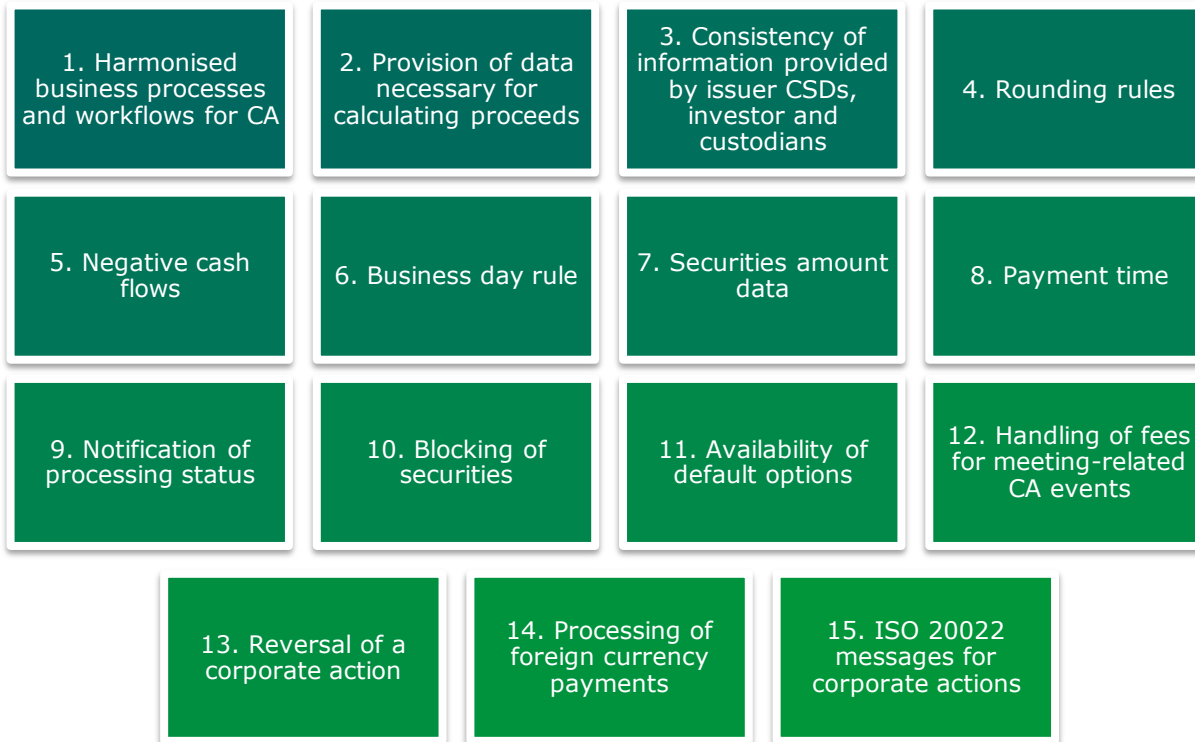
The Eurosystem Collateral Management System (ECMS) is a unified system for managing collateral, with expected launch November 2023.

SCoRE

Complying with the SCoRE standards is a prerequisite for operating in the ECMS system. The SCoRE standards sets a new set of rules and standards for Corporate Actions, Billing, Triparty collateral, Taxation, Bilateral Collateral management, Margin calls, Cot-off times, static data, sourcing of collateral and non-euro collateral.

SCoRE Corporate Actions standards

AMI-SECO has defined 15 Corporate Actions standards



SCOPE: AREAS FOR CORPORATE ACTIONS STANDARDISATION

Target is one common scope for all CSDs

CSD CA LIFECYCLE STEPS AND FEATURES

CA Event & Standards	CA creation and Notification	Management of updates, options, subscription	CA calculation / processing (incl. Notification, Payment, distribution of securities)	Settlement Dependencies	Reporting & Tax
<p><u>CA events supported</u></p> <ul style="list-style-type: none"> ECMS / SCoRE, CAJWG and CASG standards supported Corporate Action types and rules <ul style="list-style-type: none"> Fixed Income Equities & other asset classes Transaction management (MKC & T) 	<p><u>CA event setup</u></p> <ul style="list-style-type: none"> CA Creation / Registration by <ul style="list-style-type: none"> Web Screens File upload STP: ISO messages (Investors CSD activity) STP: issuers / issuers agents (ISO?) CA Creation / Registration NFRs Loan schedule & CA generation CA rules, data & format validation for creation <p><u>Account & Securities Ref. data</u></p> <ul style="list-style-type: none"> Securities referential data Account referential data Eligibility & exclusions 	<p><u>Options instructions</u></p> <ul style="list-style-type: none"> Corporate Actions elections & default option Reporting and applying results of elections / subscription Blocking of securities Reminder of uninstructed securities Buyer protection 	<p><u>Processing / Calculation</u></p> <ul style="list-style-type: none"> Mandatory cash and securities distributions Mandatory reorganisation with or without options Voluntary reorganisation with or without options CA entitlement & payment calculation Accounting day / Calendar / Dates for applying CA Rounding rules & Handling of Fractions Greenlight mechanism Processing of foreign currencies Restructuring Reversals <p><u>Transaction management</u></p> <ul style="list-style-type: none"> Market Claims Transformation 	<p><u>Settlement dependencies</u></p> <ul style="list-style-type: none"> Interaction w/ Settlement Settlement windows for CA processing 	<ul style="list-style-type: none"> <u>Tax calculation / reporting</u> <u>Regulatory reporting</u> <u>Non standards human readable reporting to clients and internal operations</u>

COMMUNICATION, CLIENT INTERFACE, CSD ADMINISTRATION, 3RD PARTY INTEGRATION, TECHNICAL & TRANSVERSAL

STP Communication	Communication screens	Technical & Legal Requirements & Integration with CSD systems	CSD Administration
<ul style="list-style-type: none"> ISO 15022 for CA (one format for all CSDs) ISO 20022 for CA (one format for all CSDs) CSD Prop formats, messages & files (short terms support) Client subscription and routing STP Data provider integration 	<ul style="list-style-type: none"> Issuer and issuer agent portal / GUI Investors portal / GUI End investors portal / GUI Data feeds screen interface Internal Operations interface 	<ul style="list-style-type: none"> Scalability Business continuity Technical & security requirements Integration with other CSD services and applications & billing 	<ul style="list-style-type: none"> Audit Trail Error view and management CA run and performance reporting Administrator view & features Alerts & alert management



Whitepaper genesis

Harmonization and standardization

The whitepaper approach

Starting point for phase 2 and 3 is to create a single document of reference describing the Euronext Securities Corporate Events service.

✓ Principles and scope:

- This document will describe the future CA service that ES will provide throughout all 4 markets; in line with CAJWG, SRD I & II, CASG and SCoRE standards.
- This document will be a client-oriented document (i.e. agnostic of the applications).
- Each chapter will provide a description of the commonly agreed target and model; in case of a deviation an arbitration will be required to be done through specific defined committees.
- The content structure will follow the CA lifecycle: creation, mandatory cash distributions, stock distributions, reorganizations, elective, market claims, transformation, etc.

Timeline:

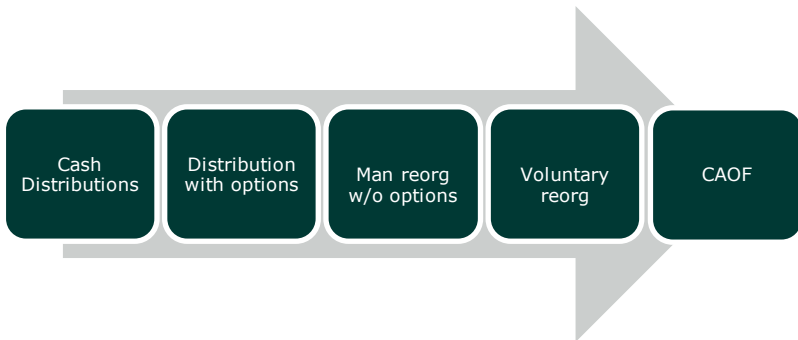
1. All CSDs will contribute in reviewing and completing the document from now until end of 2023.
2. The Service Description Document (SDD) will be used as baseline for the discussion with our Clients in the planned User Groups/Steering Committees



Plan for whitepaper approach

CA standards process

- Approach per CA group events (Mandatory & Voluntary)
- Issuer & Investor CSD offering considered



Non-standard CA process and complementary processes included

CA event set-up

- U2A
- A2A (ISO)

Tax services

Communicating channels

- U2A
- A2A (proprietary)



Deep dive on Euronext Securities Oslo

New roles

- New harmonized Roles
- Corporate Actions Cash payments in Central Bank Money
- Corporate Actions Securities payments in settlement system

FOCUS ON SOME NORWEGIAN CURRENT CA MARKET PRACTICES

Ways to harmonize current CA market practices to international standards

AS-IS

CA Securities dumps

Holdings are created directly on clients' safekeeping accounts by the IAO.

No settlement instructions generated

No kick back possible by custodians

CA lifecycle non fully managed by the CSD

CA cash payments

CA payments are made via MPS infrastructure in CoBM.

No good use of liquidity coming from CA payments

No pre-advice nor final notification is sent by the CSD

No settlement instructions generated

Market claims

Local market practice available

Harmonization proposed

TO-BE

CA lifecycle completely managed by the CSD

CA stock payments directly managed by the CSD via settlement system

ISO15022/20022 notifications provided to clients

CA lifecycle completely managed by the CSD

CA cash payments directly managed by the CSD via Central Bank Money for institutional clients

Payments in currencies different from NOK to be determined with clients

ISO15022/20022 notifications provided to clients

Definition of the detection period & rules

CA cash payments directly managed by the CSD via Central Bank Money

ISO15022/20022 notifications provided to clients

Market claims generated real time

Cash and Securities in the Settlement System

Securities Payments

- The Corporate Actions payments of securities will be processed in the securities settlement systems. As free of payments or delivery verses payments

Cash Payments

- The Corporate Action Payments of cash for Norwegian Kroner will be made as Payment Free of delivery or delivery verses payments in Central Bank Money
- There will be two different payments flow depending on the type of account operator.
- One flow is for the European flow which is similar to the T2S model for account operators
- The other flow follows a local set-up, utilising central bank money but also the Norwegian Interbank Clearing System. This is in place to cater for the large retail base with interacts directly with the Euronext Securities Oslo systems





New Role Structure

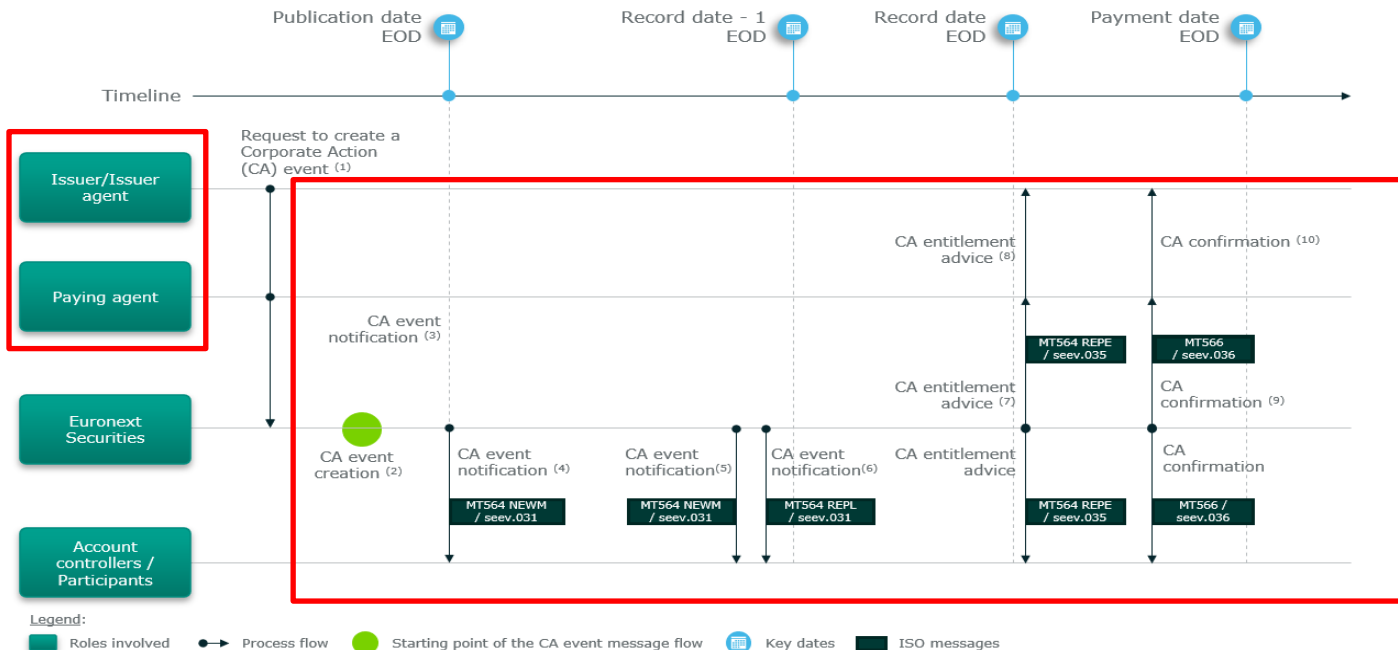
3 new roles

- Issuer Agent
- CSD Operator
- Paying Agent

Example of standardized mandatory CA processing

Here's an example of a mandatory corporate action event management, relative messages flows and the interaction with the different actors involved.

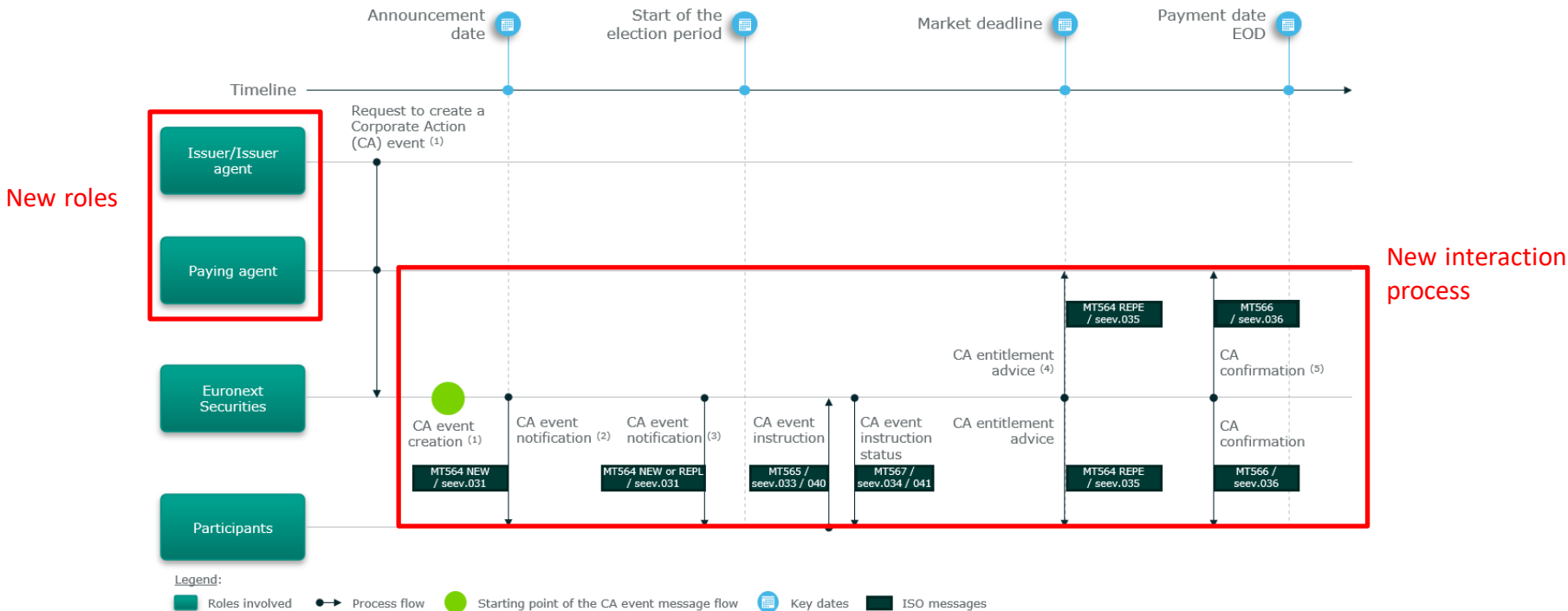
New roles



New interaction process

Example of standardized elective CA processing

Here's an example of a elective corporate action event management and the interaction with the different actors involved.





Paying agent

Introduction

Paying Agent role in relation to ES - OSL

- One of the new CSD roles required – by European standards- for the processing of cash distribution events is the role of a Paying Agent
- According to European standards – where possible - cash distribution payments shall be executed through central banks in Central Bank Money (CeBM) by Paying Agents
- In ES-OSL a Paying Agent is commissioned by an Issuer Agent to handle an Issuer's cash distribution payments for the two payment processes; 1) the professional (via Account Operator's) and 2) retail investors, that are eligible to participate in a cash distribution event
- An Issuer Agent must have an agreement with a Paying Agent for all cash distribution events processed through ES-OSL
- A Paying Agent must have a LOM in Norges Bank for the funding of cash distributions
- The Paying Agent's LOM to be used for the cash distribution is identified by ES-OSL through the Securities Account connected to each Corporate Action cash distribution event
- The Paying Agent should receive funding for a cash distribution event from the Issuer Agent on the Paying Agent's LOM in Norges Bank. ES-OSL will distribute received Corporate Action cash distribution amount in Norges Bank. The Corporate Actions cash distribution amounts will be netted together with settlement amounts
- The Issuer Agent and Paying Agent can be the same entity, or not

Paying Agent role in relation to ES - OSL

- ES-OSL will send the Paying Agent information of the total amount of a cash distribution that should be available on the Paying Agents LOM in time for ES-OSLs first settlement batch on the Payment Date of the cash distribution event
- The Paying Agent confirms to ES-OSL that funding for the cash distribution is available on the Paying Agents LOM = green light. At receipt of the green light ES-OSL will initiate the payment of the cash distribution
- If the Paying Agent does not receive cash for funding from the Issuer Agent before 12.00 on the Payment Date of the cash distribution event the Paying Agent should notify ES-OSL
- At receipt of information from the Paying Agent that funds for the cash distribution have not been received from the Issuer Agent ES-OSL sends notifications with this information to the Account Operator's and retail investors eligible to receive the cash distribution payments
- If the Issuer Agent has not made funds available to the Paying Agent, the SCoRE standards advise that 3 business days after the Payment Date of the cash distribution event the cash distribution event will be cancelled by ES-OS. For bonds this process should be revised in connection with the bonds default process.



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