

Speakers



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Agenda

- 1. INTRODUCTION
- 2. TIMELINE AND PRINCIPLES
- 3. TRADE UNIQUE IDENTIFIER
- 4. COMMON FILE TRANSFER SERVICE
- **5.** RISKGUARD FOR CASH MARKETS
- 6. OTHER CHANGES IMPACTING EURONEXT'S LEGACY CLIENTS
- 7. Q&A



1. Introduction





Introduction



Euronext « **legacy clients** » **will be impacted by major changes such as new** TVTIC, RiskGuard, changes on collar management, MyEuronext portal, HTTPS protocol on MyEuronext, random uncrossing ...



Clients have to carefully prepare their readiness as of today and organise themselves in order to properly manage these changes by:

guidelines document that will be

issued soon for more detail

- Referring to the documentation and communication published by Euronext
- Adapting their systems and behaviours to the changes and new models



In relation to the Borsa Italiana Migtation to Optiq, **impacts for clients are important** and will require legacy Euronext clients to carefully manage the trains of deliveries in EUA & PROD and all the migration steps relevant to them



Migration timeline reminder

Optiq® upgrades for clients trading on legacy markets

Along with project's delivery

Cash: Equities (incl. MIV market) and ETF

27 March 2023

Cash: Warrants &
Certificates, Fixed Income
and other Cash market*

Date will be communicated in due course

* Including EuroTLX

Financial Derivatives, Energy Commodities Date will be communicated in due course

Connectivity set-up & testing

Test in Next-EUA

External Dress Rehearsal participation

Contract signatures & Production configuration

Access, Drop-copy, TCS...)

Please refer to the migration

Applicable to legacy clients not on Italian markets

The Borsa Italiana migration onto Optiq and related changes are subject to regulatory approval

2. Timeline & Principles





Euronext project delivery model

In order to improve our capacity of execution and enhance the delivery of major programmes such as the Borsa Italiana migration onto Optiq, Euronext will follow 3 principles for release management

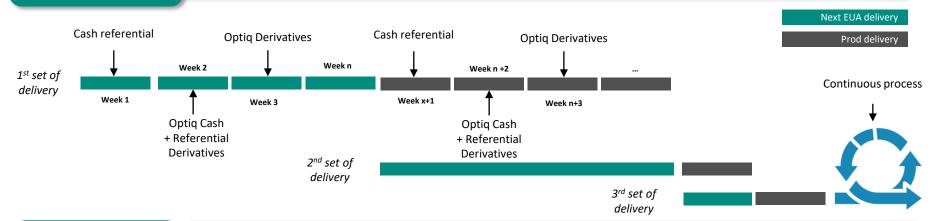
Delivery of functionalities split by services

Functional changes delivered in a so-called "train principle" i.e.

- progressive delivery of small "pieces" every 3 to 10 weeks
- deliveries will remain for 4 to 5 weeks of EUA opening

Services delivered via a specific sequence

- Features delivered by "service" following a specific delivery sequence (starting with Cash and ending with Derivatives) the same sequence will be followed in EUA and then in PROD
- the same process will be repeated for all services



Reduced impact in production

"Activation/Deactivation strategy"

- leveraging the backward compatibility mechanisms whenever possible, services delivered in EUA or Prod can be inactive (that changes to protocol will be delivered but the feature is not "active" – i.e. usable by clients)
- Deliveries requiring mandatory modifications will be regrouped to minimise clients impacts.



Optiq service deliveries in 2022

As detailed in the previous slide, changes on specific service impacting clients will take ahead of the full service deployment in EUA.

We encourage clients to carefully refer to:

- External specifications that will be updated along with the change deliveries in EUA
- Operational notices that will provide details about nature of the changes, expected tests for clients, and related SBE impacts

Clients that do not wish to support new features embedded in new versions can continue to use former SBE versions provided that their applications manage Euronext backward/forward compatibility rules

Delivery of the full service activated in EUA* Already Self Trade Prevention Enhancements delivered July / • Trade Unique Identifier: new field visible¹ Logical Access available on MyEuronext August 22 RiskGuard enhancements (Lot 1) August / SFTP protocol for Referential Data (EFS) September Trade Unique Identifier¹ as new TVTIC 22 Closing price changes (Lot 1) Quantity and national value controls at order entry SFTP protocol for Referential Data CA, ETFs, Reconciliation, EOD and Reconciliation files Closing price changes (Lot 2) • Take over Bid IPO (inc. Trading capacity control enhancements) & Public Distribution Feature Q4.2022 RiskGuard enhancements (Lot 2) Random Uncrossing for Cash Order Price control on collar & static reference price Market Maker and Liquidity provider Registration on MyEuronext

Batch delivery

1st batch

batch

for 2nd batch

of external specifications covering changes from June to August in EUA Already Published

2nd and 3rd (tbc)

of external specifications covering changes from August to October in EUA Published by the end of July

3rd to 5th (tbc) batch

of external specifications covering changing post-October Published by the end of October

*Shared dates are informative and subject to change /
List of services – functionalities impacting legacy Euronext clients is not fully exhaustive

Optiq future partitions - as currently anticipated

For information purposes, will be confirmed in due course

- Euronext is currently studying the potential increase of number of Optiq partitions
- Some partition increases are considered on ETF & Funds, Warrants & Certificates and Equity Derivatives. Clients will be informed in due course and once confirmed
- To manage changes, member can keep using existing partitions using the routing of orders across partition (with latency penalties)
- Euronext highly recommend, High Latency Sensitive Clients to adjust their access configuration and routing service accordingly to the changes

	Segment	Current # Partitions	Target # of partitions
Cash	Equities	4	4
	Fixed Income	1	1
	ETF and Funds	1	2 (tbc)
	Warrants & Certificates	2	3
Derivatives	Equity Derivatives	3	4 (tbc)
	Index Derivatives	1	1
	Commodity Derivatives	1	1

3. Trade Unique Identifier (TUI)





Why introducing a new trade identifier



Rationalise the number of trade identifiers used throughout the different systems and players of the market infrastructure for a **unique ID**



Also leading to a new Transaction Venue Trade Identification Code (TVTIC) as the only reference...

built by Euronext across all trading systems, and used by all players as the only reference



...from order execution to clearing

This single identifier will be used to track the trades across the market chain, from orders execution to clearing, facilitating day to day reconciliation and recovery in the event of outages

SCOPE

- This Unique Identifier will be implemented across all Optiq Market segments and systems
- The Trade Unique Identifier will also be available in Saturn, Drop Copy, MDG, EOD File Service, RTS 22, RTS 24 and clearing real time messages & reports
- We are in contact with the CCPs in order for them to push this information to their members



TUI, answering to market stakeholder requirements

All requirements shared by impacted third parties were analysed and taken into account to define the new identifier ...

		Current TVTIC	Unique ID
		Execution ID + ISIN	New ID generated by the matching engine
-	Less than 16 characters	Х	\checkmark
	Uniqueness for a month	Х	\checkmark
	Uniqueness per MIC	Х	\checkmark
	Customers requirements	\checkmark	\checkmark
	CCPs requirements	\checkmark	\checkmark
	Regulators requirements	\checkmark	\checkmark

The chosen solution is to create a new unique identifier that will be used as new TVTIC across the market chain. The Trade Unique Identifier will be:

- 10 characters long
- Available in a dedicated field at order entry level
- Available in all applications
- Unique per ISIN, MIC & currency over at least 1
 month
- Fully regulatory compliant
- Use new fields whenever possible and then deprecate the old ones to secure a smooth transition



Requirements

What are the benefits of TUI?

RECONCILIATION



Enable smooth reconciliation of trades in BAU, during project testing and incident recovery

Improve the reconciliation cycle for clearing purposes (clearing member, back office, CCPs) through TUI Matching

REGULATORY



Enable a simplified identification & tracking of transaction, with a single identifier covering the entire market chain

Improve Regulatory processes through TVTIC alignment across asset class / systems / feeds and support the TVTIC as the single trade identifier across the industry

Contribute to the quality of the overall markets, consistently with international standards

DATA INTEGRITY



Ensure the data integrity along the market chain, regardless of the situation and the use

Be able to reconcile data within Euronext and with external parties (incident – golden files, EoD, Real time)



High-level Migration Strategy

A 3-step migration approach is planned to ensure a proper implementation on all markets

Phase 3 -Phase 2 - Go Live Phase 1 Migration steps **Deprecation TUI** implemented Implementation in **Removal of previous** on Trading services & TCS Saturn & EOD trade identifiers Scope OEG (SBE & FIX), MDG and Full activation as new **Drop Dopy TVTIC** Trading members to develop their solution TUI implemented and used Clients need to finalise Benefits and related as TVTIC the adjustment of impacts for external Phase 3 will New field visible for Usage is mandatory for their system to remove parties be refined in clients but usage not yet all clients reference to the the coming required deprecated fields months. **Related impact for Current TVTIC New TVTIC (TUI) Regulators and RTS** is still being used is in place and used 22 / RTS 24 **New TVTIC (TUI)** Cash: 12 September 2022 is in place and used Cash: 27 July 2022 **EUA** Derivatives: 19 September Derivatives: 3 August 2022 2022 To Be Confirmed Cash: September 2022 Cash & Derivatityes: **Production** To Be Confirmed Derivatives: October 2022 **November 2022**



4. Euronext New Common File Transfer System (CFTS)





The rationale for the new solution

Common File Transfer System project will help to increase efficiency & reduce functional complexity with a single files transfer platform.

Currently

Target Solution

On Euronext side



Within Euronext, multiple transfer applications exist today to provide file and data to customers (EFS, EOD, NDM, email...)

On Borsa Italiana side



Borsa Italiana is **using BTT to distribute the files.** BTT solution will be decomissioned in favor of Euronext's data file transfert system



One single data transfer solution



Target is to implement a **single seamless data transfer facility** for clients to access, download and upload data.

Main features

- A clear folders structure defined by functional areas with public or private permissions
- Two different protocols to upload/download files : SFTP & HTTPS (MyEuronext webportal)
- Possibility to subscribe to file distribution products via MyEuronext webportal

Delivery approach

Platform will be accessible in two phasis :

- Phase 1: via **SFTP connection only**
- Phase 2: via SFTP connection & via MyEuronext webportal (HTTPS)



Overview to files and protocols

Clients will have access to a number of files organised in the following categories

Regulatory files

- RTS 9 OTR (Order to Trade Ratio) Equities
- RTS 8 ETF

Corporate Actions Bonds

- New Pool Factor
- New Outstanding
- New Instalment payment
- New Interest Rate

Corporate Actions ETFs

- NAV Information NAV/Outstanding shares
- Bank holidays for products listed
- Dividends
- Change of Characteristics
- PCF (ETF Issuers)

Reconciliation files

- Intraday trades
- Reconciliation tool file
- SLP (EQU)

Referential Data (EFS)*

- Cash Tick Size Referential (EUA and Prod)
- RepoSettlementPriceFile
- SBETemplate
- TimeTableFile
- PrevDayCapAndVolTradFile
- DerivativesTickSizeFile
- OpenInterestFile
- ReferenceSpreadsFile
- CashStandingDataFile
- DerivativesStandingDataFile
- TRF conversion Parameters File SOD (xml & csv)
- Members Mapping File
- Euronext RLP Universe
- MBR_FAMINSTR

*Referential Data service will be also available for colocation clients

EOD files

- All trades executed during the 5 last Trading session in Matching Engine for all CASH Optig segments
- Orders remaining in Orderbook for next trading day
- Orders remaining in Orderbook for next trading day
- Orders for Warrants remaining in Orderbook for next trading day
- Orders for Warrants remaining in Orderbook for next trading day
- All OTC trades uncleared provides by members
- New Uncleared Net Instructions generated by LCH SA due to daily netting and regularizations
- All MT5xx messages sent by LCH SA related to both records 00280 and 00281 of NET file

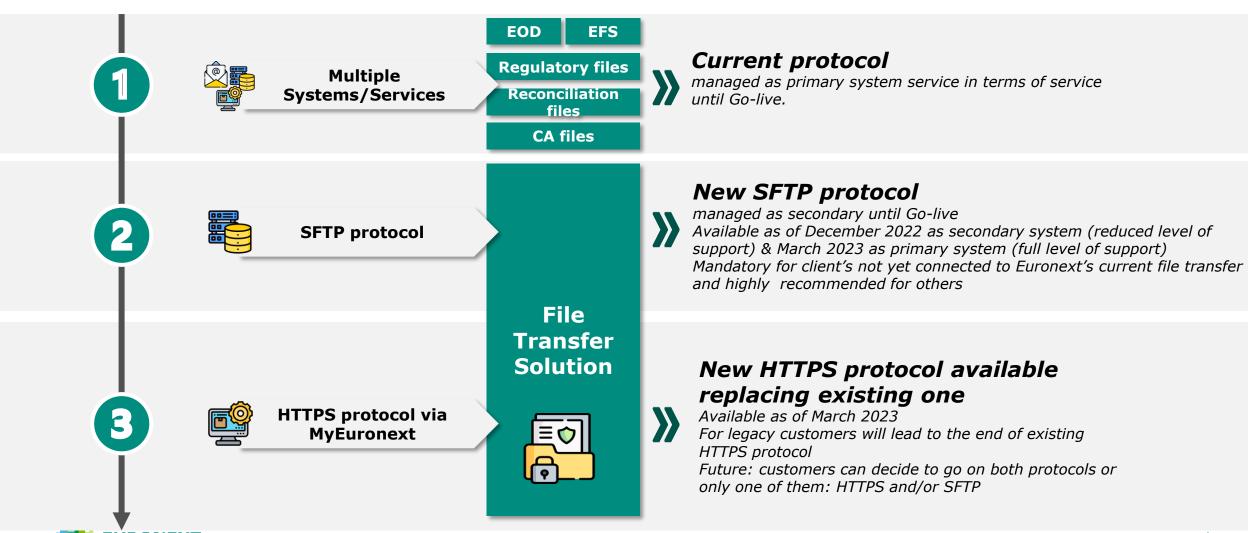
Securitised Derivatives

- Variation Size
- Knock-out
- Rollover
- Current Strike Level and Stop Loss Level
- Periodic Amount
- Barrier Event
- Current Parity
- Restrike



Implementation Plan

For Euronext legacy clients, a parallel run is planned until the decommissioning of legacy systems which date is to be determined but will not occur before March 2023.



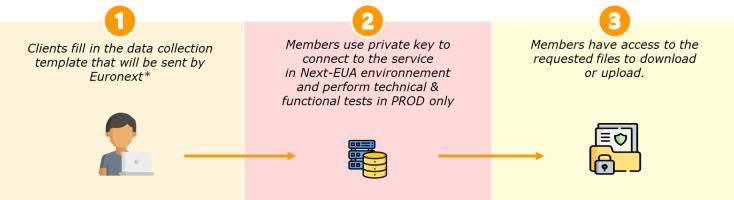
How to access to the service?

For SFTP protocol

- The client onboarding process for clients not connected to OPTIQ will start in July via dedicated form to be sent out end of July in order to use CFTS as your new files transfer system by March 2023

- If Euronext clients want to use the service before Phase 2, they have to request it to Euronext, access will be granted by Euronext Market Access teams following

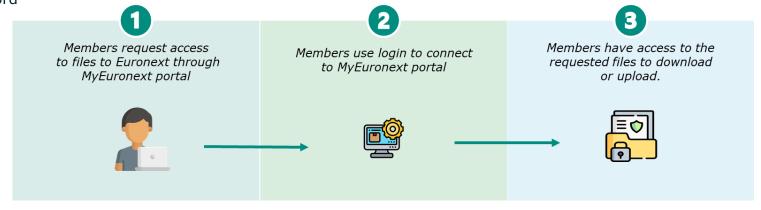
client request



* If clients already connected to current
Euronext file transfer solutions and want to
subscribe to the SFTP protocol, they need to
explicity request Euronext Market Access
team and fill out the template
For clients not yet connected to current
Euronext file transfer solutions, template to
be filled in will be issued with the
onboarding pack sent by Borsa Italiana
Membership team

For HTTPS protocol in My Euronext:

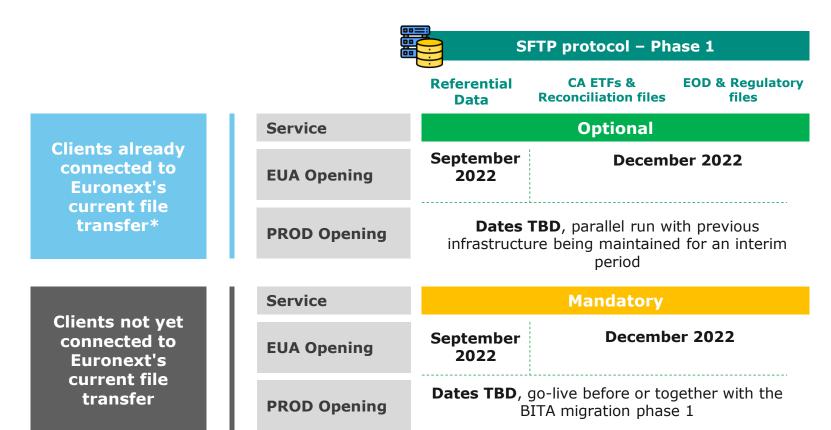
- The connection to SFTP protocol will be enable by the matching private key/public key & the connection to MyEuronext webportal will be made through a login & a password





Migrations Principles

The access to the service will be split in phasis. The service will be available in EUA from September 2022 (for EFS) & in production from November 2022 (EFS). The CFTS service will be considered as primary system for files transfer as of March 2023. If legacy clients want to use the system before this date they have to request it to Euronext & there will be a reduced level of support.



	<u></u>					
	HTTPS protocol - Phase 2					
	Referential Data	CA ETFs & Reconciliation files	EOD & Regulatory files			
	Mandatory					
	Q4 2022	Q4 2022	H1 2023			
	H1 2023	H1 2023	H1 2023			
		Mandatory				
	Q4 2022	Q4 2022	H1 2023			
	H1 2023	H1 2023	H1 2023			



5. RiskGuard





RiskGuard: General Overview

Euronext Pre-Trade Risk Management service for realtime management of risk exposure



Pre-trade risk controls to complement market participant's own pre-trade risk management systems



Designed for risk managers at Trading and Clearing Member Firms



Currently covering all Euronext legacy Derivatives markets



Allow clients to monitor their DMA flow



All order messages checked, whether or not a control has been set by the Risk Manager

- Real-time monitoring **Integrated within** the core of Optiq® **Matching Engine**
- Available through FIX 5.0 API
- Web-based User Interface available through MyEuronext portal

^{*} Full details about implementation rollout will be provided in due course

The different types of users

General Clearing Member (GCM)

- Monitor the risk associated to its NCM's trading activity on Euronext markets
- Apply to all the NCM's activity, at FirmID & Optiq® segment level
- Scope of instruments: all the subscriptions that are part of the clearing agreement between the GCM and the NCM

Non Clearing Member (NCM)

- Monitor the risk associated to the trading activity of the firm and its clients
- Controls can be set for the entire firm (per FirmID & Optiq segment), Logical Accesses or Short Codes (Execution Within Firm, Client Identification)
- Scope of instruments: all markets on which the firm is entitled to trade



Derivatives current features

Kill Switch (Suspend)

- Suspend command that stops the trading activity of a risk-monitored entity and prevents it from submitting any further orders while still logged in
- All open orders including GTCs and quotes may optionally at risk manager's discretion be pulled
- 'Suspend' remains in place until the Risk Manager re-authorises order entry by the risk-monitored entity by sending an Unsuspend command (at Optiq® segment level)

Contract Restriction

- Block command that prevents a riskmonitored entity from submitting orders in a specific contract
- Applies at Contract level
- All open orders including GTCs and quotes may optionally be pulled at risk manager's discretion
- 'Block' remains persistent until the Risk Manager sends an Unblock command





Order Size Limit

- Set a Maximum Order Quantity for Buy and Sell orders
- Expressed as a number of lots at Contract level
- An OSL equal to 0 will result in all orders in the contract being rejected

Email Alerts

- Allow Risk Managers to define in the User Interface email recipients for their own firm and their clients
- Automatic emails will be generated when certain risk controls will be triggered (Kill Switch)

Direct Market Access

Possibility for a trading member to risk monitor DMA clients by setting limits at the Client Identification short code

Additional notes:

- . By default, no controls are set
- . All risk controls are persistent

Extension of RiskGuard service

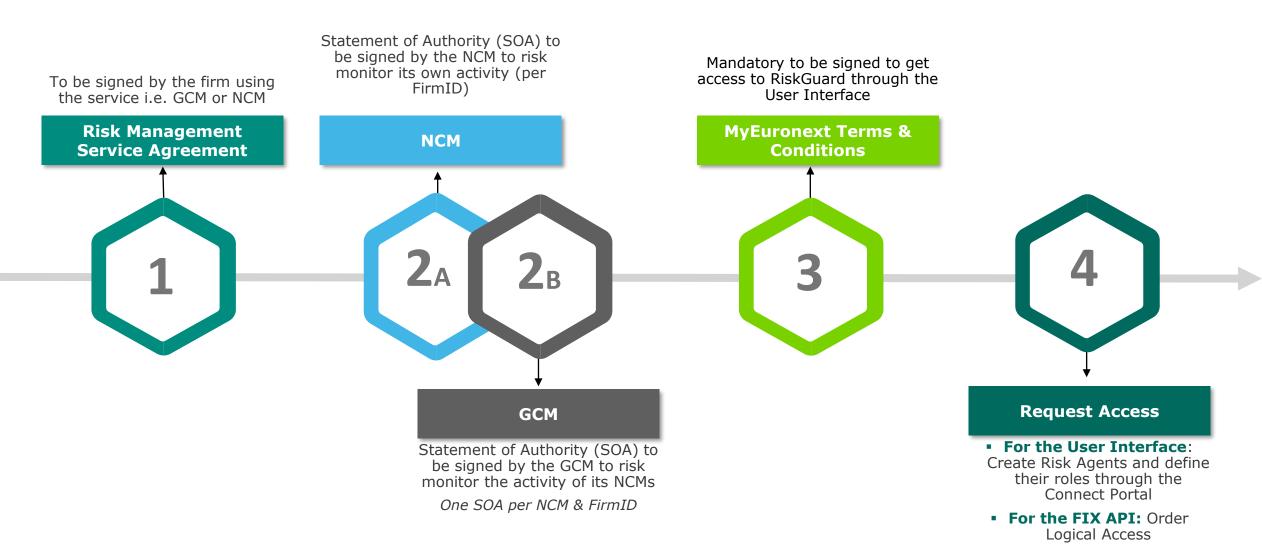
Leverage on the features offered by Borsa Italiana to extend the existing service to all Euronext markets and Cash asset classes

- Extension to Equities, Fixed Income and ETFs Cash market segments for Euronext legacy markets in Q4 2022 (Next EUA)
 - Available from the Go-Live dates for Italian markets
- Equivalent controls as the ones currently available for Euronext Derivatives markets will be available for Cash markets in Q4 2022 via the FIX API:
 - 'Suspend / Unsuspend' EUA in September 2022
 - Instrument Restructions ('Block / Unblock) EUA in September 2022
 - Order Amount Limit (OAL) EUA in October 2022
- Introduction of Sponsored Access for Cash markets: Further details about roll out will be circulated in due course

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EURONEXT
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How to access to RiskGuard?





6. Other changes





New SBE Template V.316 (1/2)

New SBE template version 316 for Order Entry and Market Data will be implemented on Euronext Cash and Derivative Markets on Next EUA in two batches starting from 27th July 2022 and 3rd August 2022 respectively. The changes will be implemented on Production as of 12 September 2022 on Cash and 19 September 2022 on Derivatives Markets.

CHANGES IN COLLAR LOGIC FOR CASH MARKETS – NEXT EUA: Q4 2022

New Authorised Price Fluctuation File (9008) files will be made available for all Euronext Cash segments along with other referential files. The APF tables are used in the context of Static, Dynamic and Order Price Control Collars. Using the reference price as a key, the APF table allows to deduce the corresponding Allowed Price Fluctuation.

New values in the Market Update (1001) message:

- "101" (High Order Price Control Collar),
- "102" (Low Order Price Control Collar),
- "103" (Order Price Control Collar Reference Price)

RANDOM UNCROSSING

NEXT EUA: 27th July for Cash markets

Extension to Random Uncrossing to further phases i.e. Closing Uncrossing, intraday Reservation period (or Trade Price Validation for Derivatives), to manual Resumption following a Halt and automatic Reopening.



New SBE Template V.316 (2/2)

END OF DAY CASH ORDER FILES – NEXT EUA: 27 JULY

New **Trading Capacity** field, which indicates whether the order submission results from trading as matched principal, on own account or in any other capacity

NEW TRADING CAPACITY CROSS FIELD – NEXT EUA: 27 JULY

New **Trading Capacity Cross** in New Order to add a control on the Trading Capacity and the Account Type entered by the Firm which will be implemented to check if this information is consistent with its membership profile Implementation date in prod will be communicated in due course

TRADE CONFIRMATION SYSTEM - NEXT EUA: 29 JUNE

- Short codes will be made mandatory for Dutch Funds. (GUI + OEG)
- Addition of Automatic posting in Clearing Operation
- Addition of Cash and Fund declaration preferences in order to avoid reentering of short codes & MIFID indicators

Clients trading on Dutch funds are expected to perform a light conformance test in order to ensure that the short codes are populated as expected. The conformance form is available.





QUESTIONS & ANSWERS SESSION



If there is not enough time to answer your questions, we will get back to you following the presentation. Thank you!





Obrigado Dank Je Merci Grazie Takk Thank You

