T7 Release 15.0

Cash Market Focus Call

9 September 2026



Questions? openday@deutsche-boerse.com
https://deutsche-boerse.com/openday2026/

Agenda

1 Overview & Introduction

2 Removal of Deprecated ETI Requests

3 Decommissioning of Java-Based T7 Admin GUI

4 Sponsored Access Functionality and Overall Risk Limits

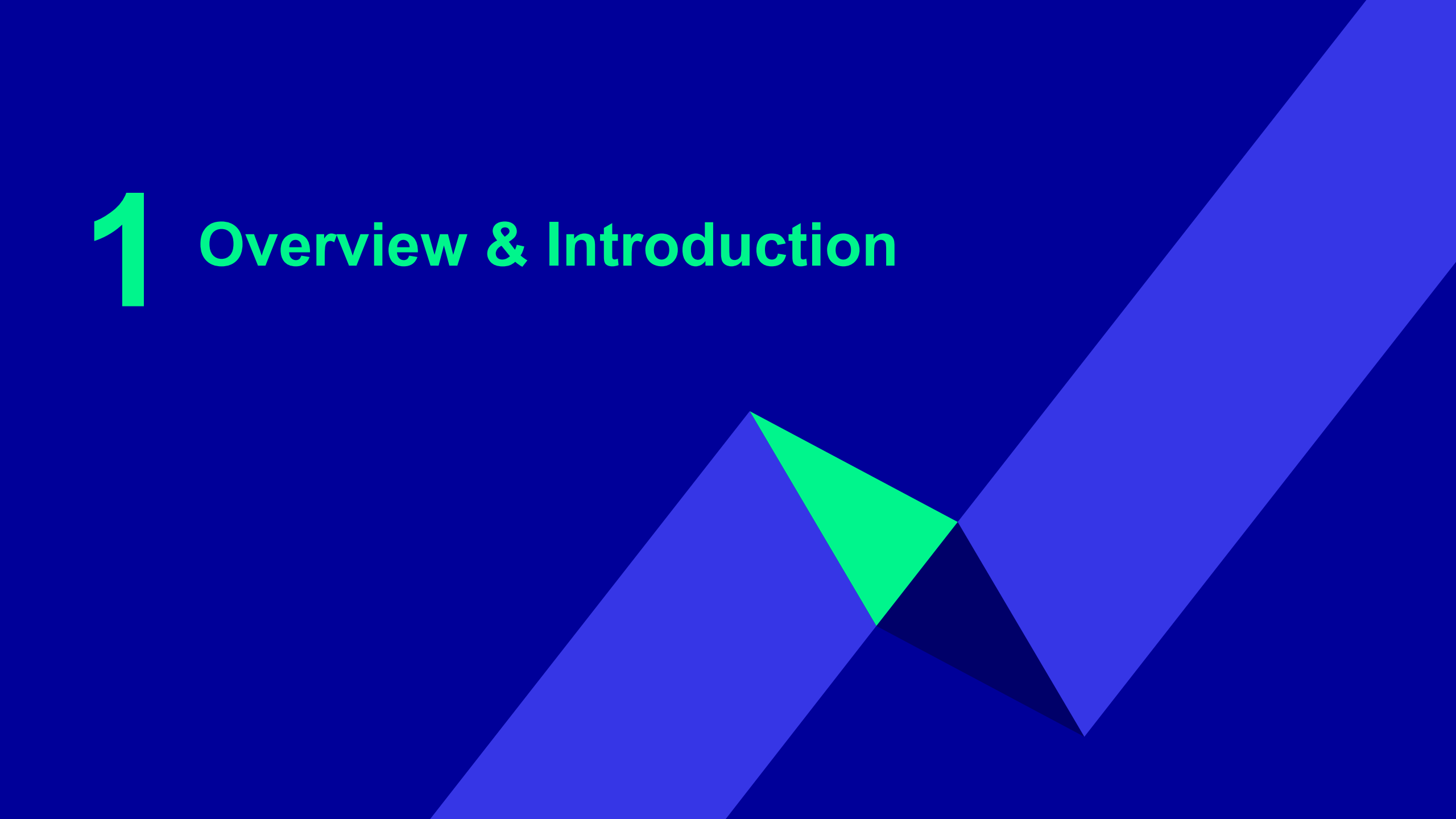
5 Xetra Midpoint Trading Enhancements

6 Algo ID Solution Enhancements

7 Improvements of the Enhanced Drop Copy Interface

8 Further Changes and Enhancements

1 Overview & Introduction



Introduction Schedule – T7 Release 15.0



Release Milestones

T7 Cloud Simu	Simulation	Production
31 Jul 2026	31 Aug 2026	09 Nov 2026

Simulation Calendar may be found HERE

Publication Schedule

				2026					
T7 Release 15.0	Derivatives Markets	Cash Markets	Combined	15.06.	31.07.	17.08.	28.08.	26.10.	06.11.
Preliminary Release Notes	x	x		v1*					
Reference, Trading, and Market-Data Interface Manuals, incl. XSD & XML Files			x		v1*				
Trader, Admin and Clearer GUI – User Manual	x	x			v1*				
Release Notes	x	x				v1*			
Functional Reference			x			v1*			
Functional and Interface Overview			x			v1*			
Trader, Admin and Clearer GUI – Installation Manual			x			v1*			
Participant and User Maintenance Manual	x	x				v1*			
Cross System Traceability			x			v1*			
Incident Handling Guide			x			v1*			
Participant Simulation Guide			x			v1*			
Cash Market Instrument Reference Data Guide		x				v1*			
XML Report Reference Manual, Modification Notes & XML Schema files			x			v1*			
Extended Market Data Services Manual & Underlying Ticker Data Manual incl. XML Fast Templates			x			v1*			
T7 Known Limitations for Simulation			x				v1*		
Market Models		x						v1	
Exchange Rules & Regulations		x							v1
T7 Known Limitations for Production			x						v1*

	Relevant for	
	Deutsche Börse Xetra	**Deutsche Börse Frankfurt**
Sponsored Access Functionality and Overall Risk Limits	X	
Xetra Midpoint Trading Enhancements	X	
Improvements of the Enhanced Drop Copy Interface	X	
Enhanced T7 XML Reports TR162, TR163 about Algo ID	X	X
Decommissioning of Java-Based T7 Admin GUI	X	X
Removal of Deprecated ETI Requests	X	X
Further Changes and Enhancements	X	X

All documents may be found under:

Deutsche Börse > Daten & Tech > Initiativen & Releases
> T7 Release 15.0

* “v1” = version 1 of document. The document may be updated to version 2 or higher as required, which will be announced via Implementation News

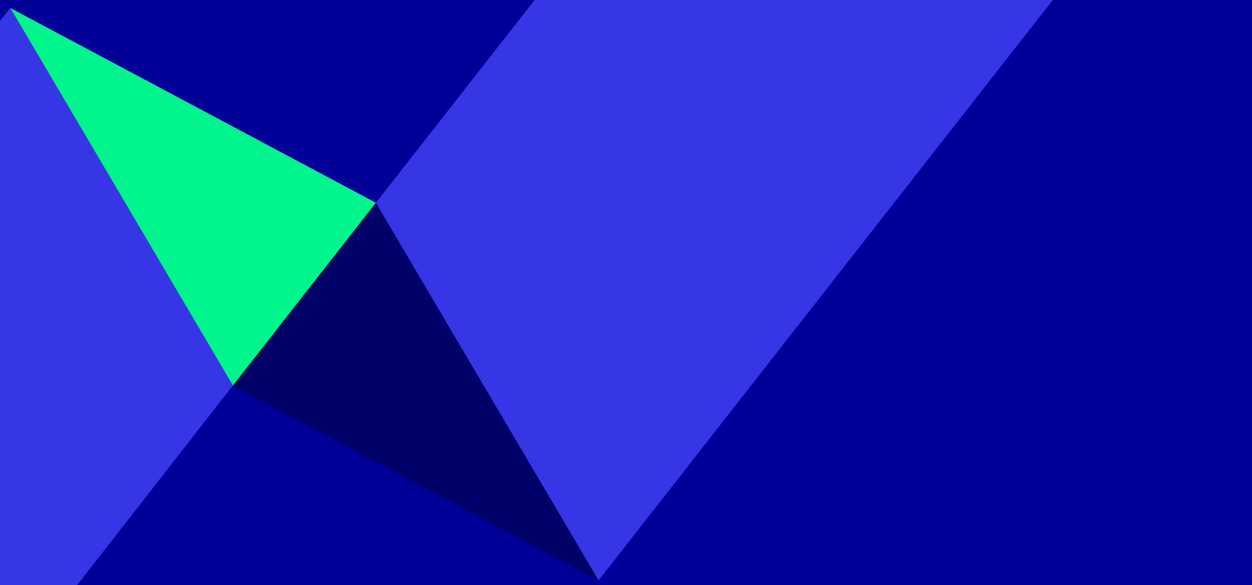
Overview Cash Market T7 Release 15.0

MAIN FEATURES

1. Removal of Deprecated ETI Requests
2. Decom of Java-Based T7 Admin GUI
3. Sponsored Access & Overall Risk Limits
4. Xetra Midpoint Trading Enhancements
5. Algo ID solution Enhancements
6. Enhanced Drop Copy Interface Improvements

Backward compatibility for ETI / FIX LF / EDC	NO
Backward compatibility for market and reference data	NO

2 Removal of Deprecated ETI Requests



Deprecated ETI Order Entry Requests - Overview

Current Situation

- **NEW** ETI Requests available in Production & Simulation since T7 Release 12.0
- **OLD** ETI Requests were marked as deprecated with T7 Release 13.1, removal announced
- **Removal:** Deprecated requests were removed with T7 14.1

Future Situation

- **End of Backwards Compatibility:**
  - Availability of deprecated ETI requests ends with T7 Release 15.0
  - Requests already in production - clients should finish implementing new requests immediately (**No need to delay** until 09 November)

Deprecated Single- and Multi-Leg ETI Requests

The following deprecated requests were technically removed with T7 Release 14.1

Request Name	Request ID
New Order Single	10100
New Order Single (short layout)	10125
Replace Order Single	10106
Replace Order Single (short layout)	10126

The following requests must be used with T7 Release 15.0

Request Name	Request ID
New Order Single Or MultiLeg	10138
New Order Single Or MultiLeg (short layout)	10139
Replace Order Single Or MultiLeg	10140
Replace Order Single Or MultiLeg (short layout)	10141

The following request will remain unchanged for Cash*

Request Name	Request ID
Cancel Order Single*	10109

*Cancel Order Single Removed on Derivatives Markets

3 Decommissioning of Java-Based T7 Admin GUI



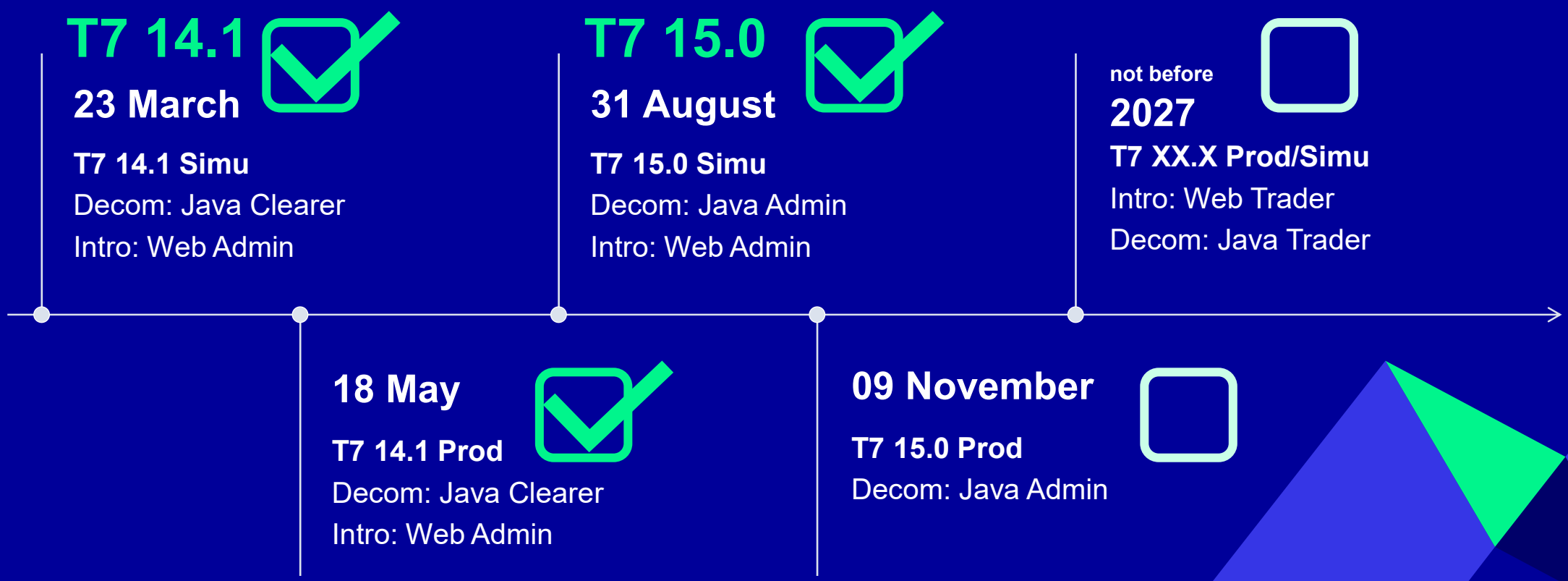
New T7 Web GUIs - Overview

- Deutsche Börse is rolling out a new generation of T7 Graphical User Interfaces (GUIs) to enhance user experience and simplify maintenance.
- These modern T7 Web App GUIs are gradually replacing the original Java-based versions.
- **Key change**
  - Move to a browser-based system, which eliminates the need for Java installations, regular updates, and dedicated launcher
  - Offers users a more convenient, lightweight & state-of-the-art interface, accessible with just a web browser & client certificate, while retaining the full functionality of the previous versions



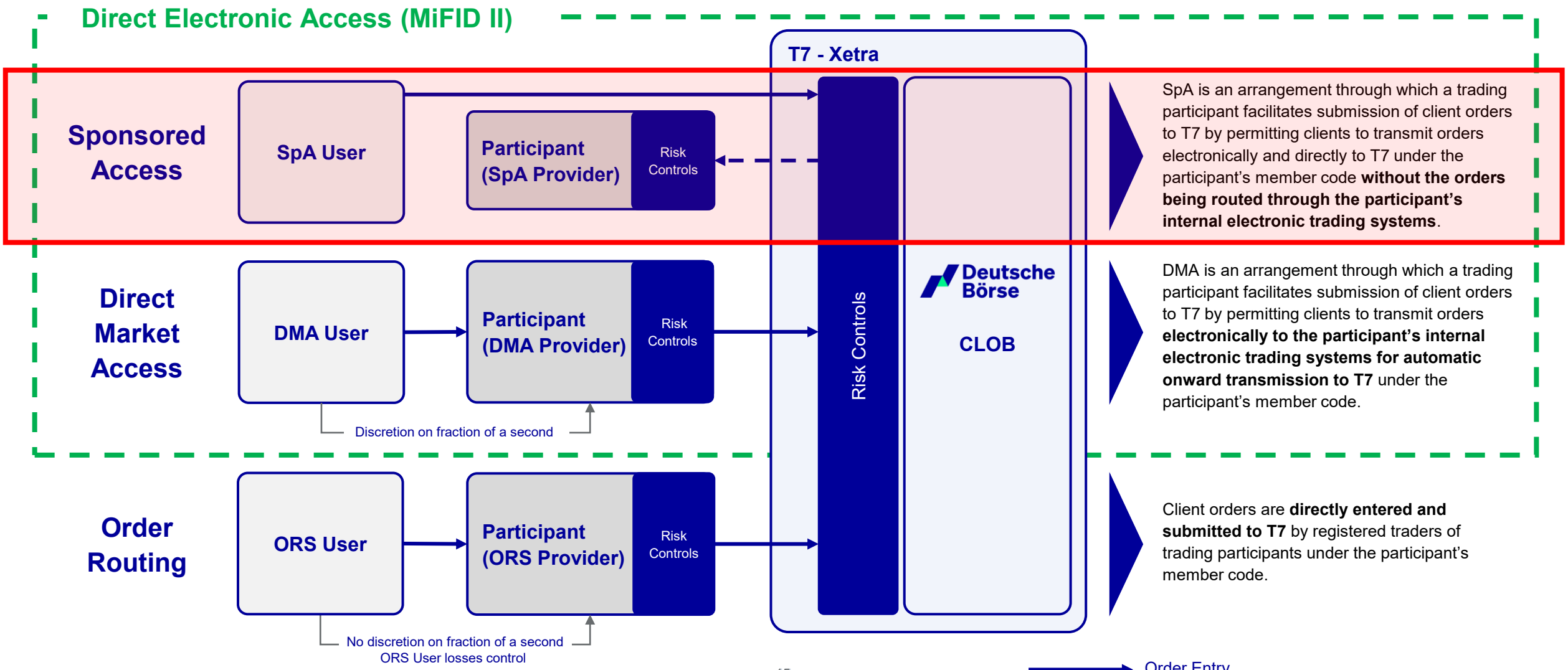
Click Here to find out more!

New T7 Web GUIs -Timeline



4 Sponsored Access Functionality and Overall Risk Limits

Options for sending client orders to Xetra



Timeline

KEY OBJECTIVES

- **Low latency Access without 'Participant' status**
- **Additional connectivity option to Improve XETR access flexibility**
- **Increase liquidity through introduction of new client types**
- **Extend reach into new regions**

Roadmap (planned)

2025 — R 14.0

- Eurex launches SpA MVP on XEUR

2026 — R 14.1

- Xetra launches Enhanced Drop Copy solution on XETR

R 15.0

- Xetra launches SpA including tailored pre-trade and at-trade risk controls for cash equity markets
- Xetra enhances Drop Copy functionality to meet SpA requirements

2027 — R 15.1*

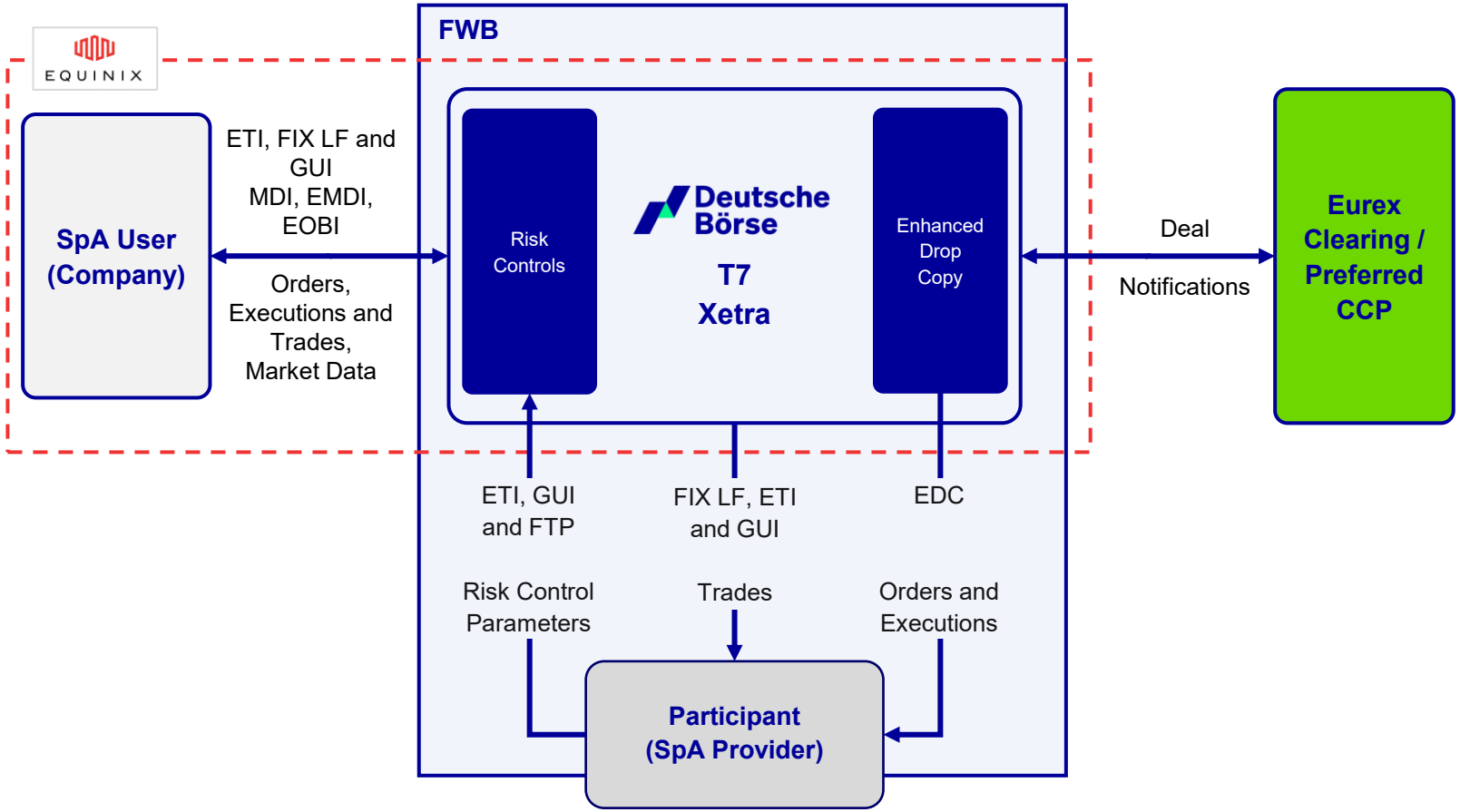
Xetra envisages to enhance SpA by

- New role concept for SpA risk controls maintenance in T7 GUI
- Duplicate Order Control
- Flexible MOV and MOQ
- Market Orders in Auctions
- Additional Overall Risk Limit Parameters (e.g. no of orders)
- Additional action for ORL level 3 breach
- EDC content

*To be confirmed via Circular

High-Level Model and Interface Concept

Sponsored Access Service Overview



Connectivity Overview

- SpA Users (in T7 docu SpA User Company) can select from **same connectivity portfolio as trading participants including** Co-Location and market data sessions
- SpA Providers can order **High & Low Frequency Trading Sessions** for their clients
- **No latency penalty** for SpA Users on the critical path of an order message from the client to the matching engine
- SpA Providers can order Enhanced Drop Copy Sessions to **establish risk monitoring** for orders and executions
- SpA Providers can **receive trade notifications** via ETI or FIX LF Back-Office sessions

Trading Rules & Restrictions

✓ PERMITTED

Supported Markets
- Xetra

Trading Model
- Continuous Trading with Auctions

Capacities
- Agency, Riskless Principal

Order Types
- Limit
- Only GFD validity
- All Auction trading restrictions incl. AVD
- IOC, FOK, BOC, TaC execution conditions
- Persistent and non-persistent, lean and standard

Executions
- Via configured Preferred CCP

✗ NOT PERMITTED

Capacities
- Principal, Market Maker, Retail Trading capacities

Order Types
- Market orders, Midpoint, Iceberg
- Stop orders, Trailing Stop order, OCO order
- GTC/GTD validity
- TES trading

Functionality
- Xetra EnLight
- Quote entry

High-Level Risk Controls Overview

Risk Limits

SpA Providers can define specific trading limits for SpA Users:

Overall Risk Limits (ORL) for total trading activity

Product-level specific trading limits (Pre-Trade Risk limits, PTRL)

Kill Switch

Enables SpA Providers to **stop** and **release** trading activity of a SpA User (“Stop Trading Request” with option to delete all open orders) using low latency interfaces

Enhanced Drop Copy

EDC enables SpA Providers to **monitor** trading activity of SpA Users **Disconnect** of “monitoring” drop copy session automatically **stops SpA Users** and **cancels all open orders**

After **re-connect** SpA User again **able to trade** automatically

Order Risk Controls

Prohibits SpA Users to enter orders exceeding:

Maximum Order Value (MOV

Maximum Order Quantity (MOQ)

Exchange defined **Price Collars (PRC)**

Restrict Markets / Instruments

Allows SpA Provides to restrict SpA Users to trade specific **markets** or **instruments**

Message Rate

Restricts **message rate** per second

SpA Provider able to configure 250, 150 and 50 m/s via session type selection

Message rate can be throttled in case ORL level 2 is configured accordingly

Overall Risk Limits: Calculation Mechanics

Overall Risk Limits Formula

- Overall Risk Limits (ORL) generally prevent SpA Users from trading beyond financial limits set by the SpA Provider
- ORLs are defined in EUR. For instruments traded and settled in non-EUR currencies limits and prices are converted according to the ECB exchange rate

Overall Risk Limits Formula

Gross ORL = Σ(Buy open orders) + Σ(Sell open orders) + Σ(Buy executions) + Σ(Sell executions)
Gross Overall Risk Limit is defined as the value of all executed orders and all open exposure; prevents SpA User Companies from being overly exposed.

and / or

Net ORL = Σ(Buy orders/executions) - Σ(Sell orders/executions)|
Absolute value of net position; limits the imbalance between Buy risk and Sell risk.

Order Accounting & Daily Reset

- **New orders** → Counted as open immediately (increase consumption)
- **Partially executed orders** → Split between open & executed (proportional accounting)
- **Fully executed orders** → Moved from open to executed
- **IOC/FOK orders** → Only counted as executed

- **Calculation** → open orders = quantity × limit; executed orders = quantity × execution price
- **Daily reset** → No carryover from previous business day; consumption resets to zero
- **Scope** → On-book trading ONLY (no quotes in SpA); order value = quantity × execution price

Overall Risk Limits: Three-Level Escalation

Risk Escalation Progression

LEVEL 1 - WARNING

Notifications sent to Provider & User

LEVEL 2 - THROTTLE

TPS limit applied to trading session(s), auto-remove when below threshold

LEVEL 3 - STOP

Auto-Stop Delete all orders

Key Escalation Behaviors

Order Acceptance	Order causing breach → ACCEPTED & may execute | Consequences apply to NEXT orders only
Level 2 Removal	Auto-removed when consumption drops below BOTH Gross & Net Level 2 thresholds
Level 3 Recovery	Automatic: Next business day OR Manual: Via Provider Stop Trading Release Request
Configuration	Intraday updatable if defined previously | Level 1 < Level 2 < Level 3 (if defined) | No requirement between Gross & Net limits
Optional	Completely optional | Empty/null = no restriction | Zero = no risk allowance

Stop Trading and EDC Monitoring

Stop Trading Workflow



Submission Channels: EDC | ETI LF | FIX LF (ETI HF not supported)

Optional EDC Monitoring Session (Real-Time Risk Management)

✓ EDC Monitoring Session allows for real-time risk management of a SpA User
✓ If configured by the SpA Provider for a SpA User, at least ONE monitoring session must be logged-in to enable a SpA User to trade
✓ Option for multiple monitoring sessions to allow trading to continue despite one session failure
✓ Last monitoring session disconnect triggers automatic trading stop & order deletion per SpA User

EDC Monitoring Sessions – Drop Copy Disconnect



✓ To prohibit network flickering to trigger trading stop, SpA Providers able to configure heartbeat frequency on session log-in
✓ After 3 consecutive heartbeat misses T7 triggers automatic trading stop and order deletions

5 Xetra Midpoint Trading Enhancements

Started December 2024: Xetra Midpoint

Dark pool integrated in global reference market for German equities

Maximize Liquidity

Xetra Midpoint enables participants to seamlessly trade selected equities and ETFs in the dark order book, pegging orders to Midpoint and executing Dark-Lit Sweep to Xetra CLOB with zero latency.

Matching Logic

Execution maximization based on volume-time priority. Protect your orders with MAQ (minimum acceptable quantity).

Price Improvement

Profit from significant price improvement by saving half the spread compared to aggressive CLOB orders.

Confidentiality and Speed

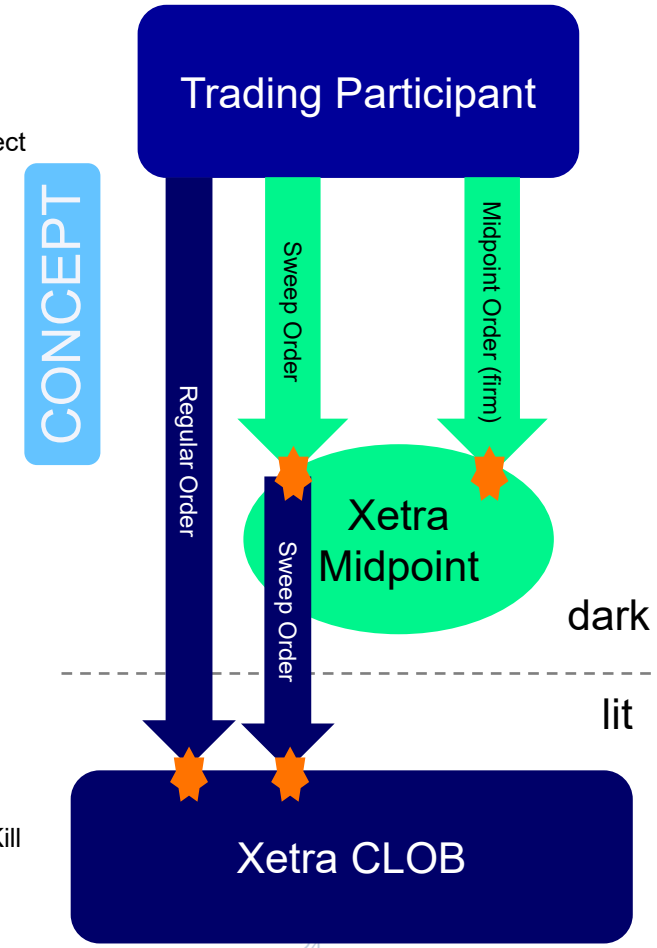
With no pre-trade transparency, safeguard your intentions to trade at the real-time midpoint price of the reference market Xetra.

Efficient Reporting

Benefit from Separate Reporting MIC Codes and segment MICs under operating MIC XETR, ensuring streamlined reporting processes under MiFIR Reference Price Waiver.

Advanced Order Options

Benefit from order limits, Immediate or Cancel (IOC), Fill or Kill (FOK) functionalities, empowering you with flexible trading strategies.



XETRA Midpoint market statistics
(YTD 2026, as of 31.08.2026)

- Average Daily Volume 2026:
  EUR 38.8 M
  Top 3 strongest days:
  EUR 81M (30.07.26)
  EUR 78M (29.07.26)
  EUR 75M (23.03.26)
- Avg Trade size: ca. EUR 6.5k
  Largest Trade: EUR 12.6M
- Over 75% of volume is executed in DAX40, strong demand for MDAX (17%) as well
- Broad-based, attractive liquidity profile incl. unique local players
- > 20 Clients active on daily basis
- European Dark market share in August 2026:
  → DAX 7.6%
  → MDAX 7.4%

Simple technical implementation

Excerpt from ETI cash message reference

- **„Midpoint Book Only“** – MBO midpoint order is written **passively** into Xetra Midpoint Order Book.
- **„Counterparty Resting Time“** – Segregation of matching liquidity by type: CRT midpoint order will **only be executed against other midpoint orders** that have been resting **passively** and with a **marketable** limit price on the Xetra Midpoint Order Book for a **minimum time** interval (Minimum Marketable Resting Time = 100 milliseconds – will be announced in official circular prior to launch).

Tag	Field Name	Req‘d	Len	Ofs	Data Type	Description
30388	MidPointType	N	1	259	unsigned int	Midpoint order type New valid values 1 – Midpoint order 2 – Midpoint sweep order 3 – Midpoint order Book Only 4 – Midpoint order – Counterparty Resting Time Restriction 5 – Midpoint order – Book Only and Counterparty Resting Time Restriction

Changes in ETI / FIX Messaging Logic

- New order attributes are included in the existing Midpoint Type field in the order entry / modification / information / deletion messages
- Not compatible with Midpoint Sweep orders
- No changes in execution messages, trade confirmations

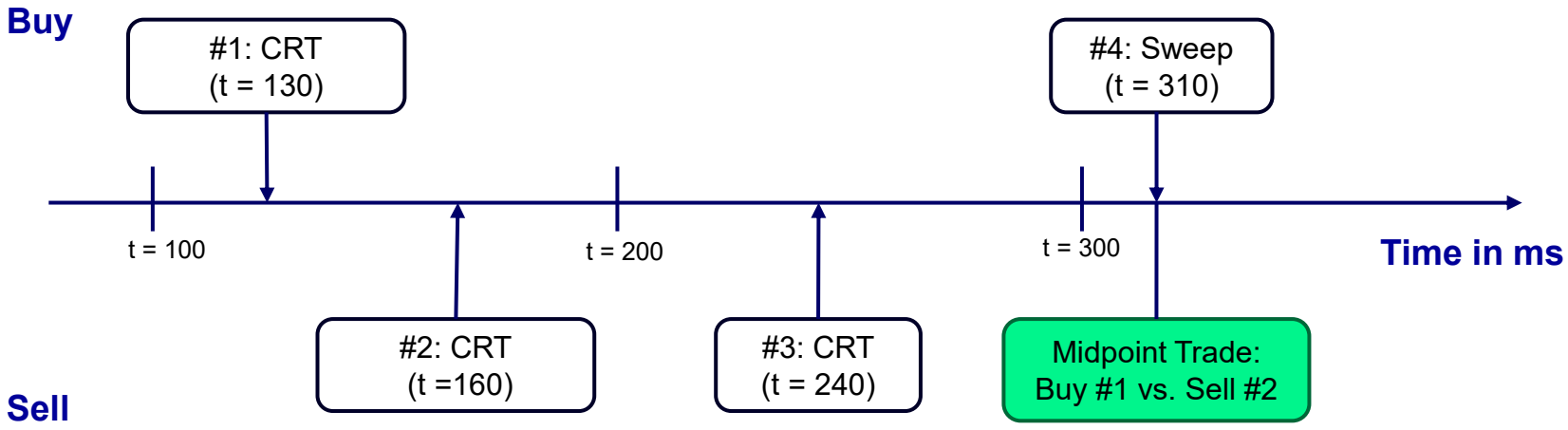
Changes in Matching Logic

- MBO orders never participate in the very same matching attempt that is triggered by their entry / modification
- For matching of CRT orders, iterative matching logic is introduced (still all within 1 matcher transaction, synchronized with CLOB as today) to ensure only CRT-eligible orders are selected as potential counterparty

Counterparty Resting Time – Use Cases (1/2)

Example 1: Midpoint Orders with CRT restrictions and resting orders becoming „CRT-eligible“
- Stable Midpoint Price
- All orders marketable (= limit prices allow for execution at prevailing midpoint price, midpoint trading is currently available)

- t = 160: no execution of #1 vs #2 – both have CRT restriction
- t = 240: #1 is „CRT-eligible“ but #2 and #3 not yet
- t = 260: earliest time where #1 and #2 mutually fulfil CRT-restrictions
- t = 310: incoming sweep order #4 triggers execution of Buy #1 vs Sell #2; no execution of #3 or #4

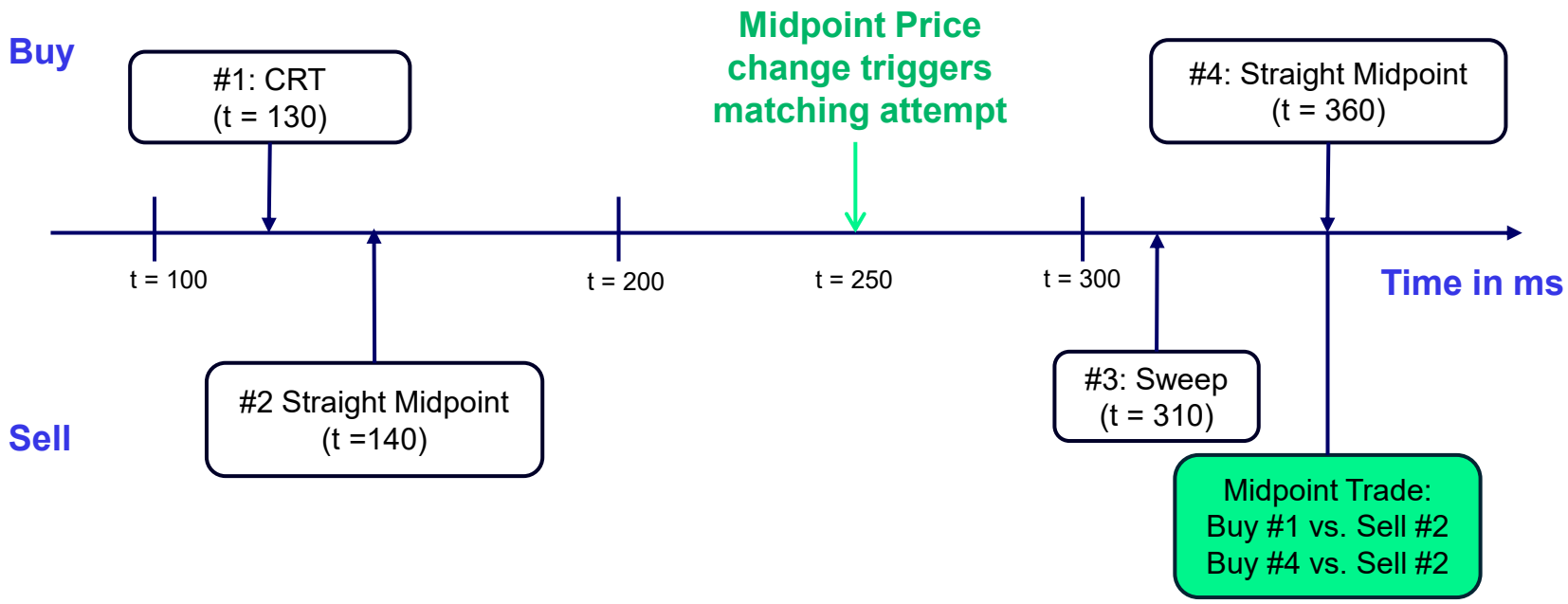


With new Xetra Midpoint CRT feature, traders with a certain **type of trading interest** (low time sensitivity) can **target likewise counter-liquidity** with **high information protection** and can still **interact with** other **„straight“ midpoint liquidity** in the **same order book**. Executions are always at the **real-time reference price**.

Counterparty Resting Time – Use Cases (2/2)

Example 2: Midpoint Orders with CRT restrictions and matching after midpoint price change
- Midpoint Price changes at t = 250
- Sell order #2 becomes marketable only after Midpoint Price change (t = 250), Buy order #1 is marketable at all times

- t = 140: Sell order #2 is not marketable at entry
- t = 250: Sell order #2 becomes marketable, no matching because marketable resting time only starts now
- t = 310: incoming sweep order #3 triggers next matching attempt, still no execution as Sell order #2 becomes CRT-eligible only at t = 350
- t = 360: Buy Order#1 has prio over Buy Order #4, remaining qty of Sell Order #2 matches with Buy Order #4



With new Xetra Midpoint CRT feature, traders can avoid execution immediately after a midpoint price change if the counterparty order was not executable at the previous price. Both, reference price and counterparty order must remain in favor of an execution for at least the Minimum Marketable Resting Time. Matching priority ensures that outcome of the next matching attempt is (ceteris paribus) the same as if matching had taken place at the moment where MMRT ends (t = 350).

6 Algo ID Solution Enhancements

What is Changing?

1 Algo ID Registration Enhancements

From 9 November 2026 onwards

- In addition to the existing submission of new algorithms, substantial updates must also be submitted
- New fields: **Status Indicator for lifecycle management with the dedicated new value "S" for substantial updates, Test Certification, and Test Environment** will be implemented in upload file and TR163

2 Testing Documentation

Testing documentation: remains the responsibility of the participant, requested annually via the Member Due Diligence Questionnaire starting in **Q1 2027**

3 CUE Pre-Validation Changes

Common Upload Engine (CUE) content pre-validation will be decommissioned
Intraday and end-of-day validation reports remain available

4 Enhanced Error Reports

Error reports TR160, TR162 and TR169
include **timestamp** of the first detected missing Short Code ID or Algo ID in field "processing time"

Algo ID - New Registration Process

ParticipantID	MIC	StatusIndicator	ValidFromDate	AlgoID	ResponsibleID	TestCert	TestEnv
GDBXX	XETR	N	2024-10-14	2578	jon.doe@abcbank.com	TC	EE
GDBXX	XETR	N	2024-10-14	135123	jon.doe@abcbank.com	TC	IE
GDBXX	XETR	M	2024-10-14	18965	jan.smith@abcbank.com		
GDBXX	XETR	S	2024-10-14	5555	jon.doe@abcbank.com	TC	EE
GDBXX	XETR	D	2024-10-15	32569	jon.doe@abcbank.com		

Test Certification
- TC = Test Certification

Testing Environment
- EE = Exchange Environment
- IE = Internal Environment
- TE = Third-Party Environment

New Status Indicator:
- S = Substantial Update

Registration Type	Test Certification	Testing Environment
New Algo ID	✓Required	✓Required
Substantial Update	✓Required	✓Required
Modification & Deletion	X Empty	X Empty

Examples of Substantial Updates

ESMA considers any modification that may alter the behavior, risk profile, or compliance posture of an algorithm, algorithmic trading system or strategy a substantial update

Change Type	Examples
Logic or Decision Rules	Altering how the algorithm determines price, timing, or quantity
Execution Behaviour	Modifying order types, slicing logic, or routing mechanisms
Scope	Deploying the algorithm in new instruments, venues, or asset classes
Risk Controls	Changing thresholds, kill switch logic, or alert triggers
External Dependencies	Replacing third-party providers or data feeds, changes to the trading systems, or changes in access arrangements.
Adaptive Capabilities	Retraining or modifying machine learning components

Source: ESMA74-1505669079-10311 Supervisory Briefing on Algorithmic Trading in the EU, chapter 2 (31), 26 February 2026

Key Information & Next Steps

01 Testing & Documentation

- Trading participants remain responsible for testing new algorithms and substantial updates
- Test documentation must be retained and may be requested annually via the Member Due Diligence Questionnaire (up to 10 documents for algorithms and/or substantial updates)

02 Existing Algo IDs

- Existing Algo ID registrations remain valid, and no resubmission is required unless a substantial update is conducted
- Existing registrations will continue to be reported in TR163 with new fields remaining blank for registrations submitted prior to T7 release 15.0

03 Testing Environment

- No specific testing venue is prescribed. Testing may be performed in the exchange, internal, or third-party testing environments

04 Timely Application of Upload Files

Old Upload File	New Upload File
Until 6th of November 11:30 PM	From 7th of November 00:01 AM

CUE Pre-validation

WHAT CHANGES?

01 Content validation decommissioned

02 Upload validations will be limited to: file type, structure and naming convention

03 Content validation is conducted in the data warehouse, and results are provided in the intraday and end-of-day reports

04 File size **50 MB**

IMPACT **Faster processing**

No change to reporting obligations

Error Reports (TR160/162/169)

TR SERIES

The existing field **"processingTime"** in reports TR160, TR162, TR169 will be enhanced with error 1:

"ShortCodeID registration / AlgoID registration is missing"

The timestamp of the Short Code ID or Algo ID missing identification is added

New field format **"TimeFormat18"**: `hh:mm:ss.ccccccccc`

7 Improvements of the Enhanced Drop Copy Interface

Enhanced Drop Copy Interface improvements

Improving reconciliation, transparency & completeness of orderbook-related information

01 Retransmission — Recover intraday messages after disconnects

02 Rejection Reasons — Expose selected risk and reasonability failures in the new Order Reject Notification

03 Request for Quote — Add Quote Request Notification

04 ETI alignment — Preserve logical event sequence

8 Further Changes and Enhancements

Further Changes and Enhancements

1	**One-person emergency stop role**	The new EmergencyTradingStop User 2EP role permits a user stop without four-eyes confirmation in the Admin GUI. Business-unit stops retain the four-eyes principle; the old and new roles are mutually exclusive and intended for Service Administrators
2	**Session-logon fields removed**	ETI and FIX LF software-identification fields move to the Member Section ISV / Software Registration Process and are removed from session-logon requests.
3	**Further interface-only impact**	RDI / RDF Product Snapshot: minExpiryRange added; Instrument Snapshot: ComplexInstrumentDescriptorGroup removed. (not used by Cash Markets)
4	**Daily Trade Confirmation Report Changes**	New values for TradingRestriction in -- TC810 T7 Daily Trade Confirmation. Not included in RNs – Link: Report modification notes

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Q&A

If you have any further questions, please contact client.services@deutsche-boerse.com

Thank you!

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