

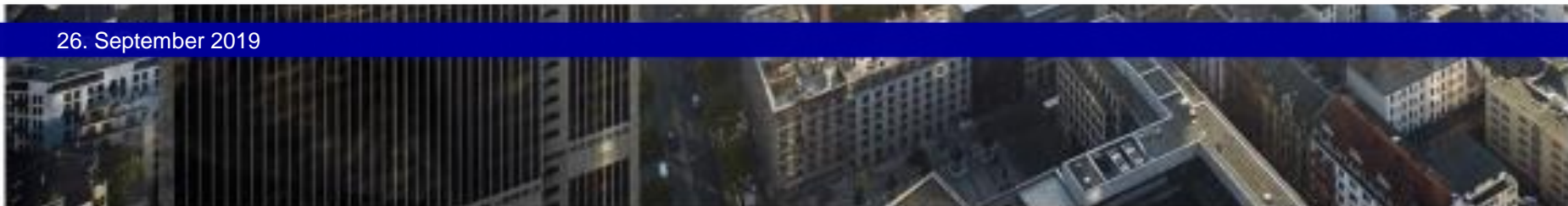


Open Day 2019

T7[®] Release 8.0 and preview 2020

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Contents

2 Overview of changes in T7
Release 8.0

4 Derivative market specific:
Functional and technical changes
of T7 Release 8.0

9 Cash market specific: Functional
and technical changes of T7
Release 8.0

17 Further enhancements

18 Technical changes

20 Production timeline

Overview of changes in T7 Release 8.0

Scope	Eurex	EEX	Eurex FX	Xetra	Börse Frankfurt	Cash PEX
Enhancements to Standard Options Strategies (SOS) and Option Volatility Strategies (OVS)	✓		✓			
Eurex EnLight Straight-Through-Processing	✓					
Decommissioning of Clearing Member Transaction Size Limits	✓	✓	✓			
New Instrument Naming Convention (SARON futures)	✓					
Continuous Auction with Specialist (CA-S)				✓	✓	✓
Quote Request Solution for CA-S				✓	✓	✓
CCP and non-CCP Trading in One Market				✓	✓	✓
Split Snapshot Cycles in MDI	✓	✓	✓	✓	✓	✓

✓ = Functionality available (-) = Will be used in the future (✓) = Functionality partially available

No Backwards Compatibility with T7 Release 8.0



Interface	Action Required
ETI	✓
FIX	✓
Market Data	✓
RDI	✓

Derivatives: Enhancements to Option Strategies

Eurex will introduce new ratios and combinations of Standard Options Strategies and Options Volatility Strategies with T7 Release 8.0.

Eurex will relax equidistant price constraints for all strategies that are not part of the Strategy Building Block of the General Supplement to the Eurex Liquidity Provider Agreement

Interface	Changes
ETI/FIX	No explicit change
Market Data	No explicit change
Reference Data	New valid values in <i>SecuritySubType</i> Refer to Trading Parameter on Eurex webpage
GUI	The functionality will be available via GUI
Reports	No explicit change

Derivatives: Eurex EnLight Straight-Through-Processing

With T7 Release 8.0, Eurex will introduce Straight-Through-Processing (STP) for Eurex EnLight.

- Eurex EnLight Deal results in a legally binding TES Trade of type Eurex EnLight with minimum user interaction
- The functionality will be MiFID compliant
- Two negotiation modes will exist:
 - STP mode
 - Trader GUI: STP flag will be checked by default when initiating the negotiation
 - ETI: Via submission of valid value 4 = *Auto Trade / Eurex EnLight Straight-Through-Processing (STP)* in the mandatory field *QuoteQualifier*
 - Manual mode
 - Trader GUI: STP flag is required to be unchecked
 - ETI: Via submission of valid value 0 = *Manual Trade* in the mandatory field *QuoteQualifier*

Derivatives: Eurex EnLight Straight-Through-Processing

Interface	Changes
ETI	<ul style="list-style-type: none"> • <i>QuoteQualifier</i> will mark whether a Eurex EnLight negotiation is subject to STP • MiFID II and clearing relevant fields will be added to related SRQS requests and notifications • Various Expiration Timer information is added to SRQS requests and notifications, such as <ul style="list-style-type: none"> • <i>EffectiveTime</i> • <i>ValidUntilTime</i>
Market Data	No explicit change
Reference Data	<p>The timers will be added to the reference data of the products in RDI/RDF:</p> <ul style="list-style-type: none"> • <i>NegotiationDuration</i> • <i>MaxOffsetRFQExpireTime</i> • <i>OffsetSTPEffectiveTime</i>
GUI	The functionality will be included in the Eurex EnLight related views
Reports	<i>TE600 Eurex EnLight Maintenance</i> and <i>TE610 Eurex EnLight Best Execution Summary</i> will be enhanced to include new fields for STP mode

Derivatives: Decommissioning of Clearing Member Transaction Size Limits

- With C7 Release 6.0, Clearing Member Transaction Size Limits (TSLs) for the DC Market Participants will cease to exist
- A new process in C7 will compensate for this and result in changes of Participant TSLs in T7:
 - Clearing Members (CM) will perform product assignment in C7
 - If a CM does not assign the products to its DC Market Participants, the TSL of that DC Market Participants in T7 will be set to *null*
 - Otherwise, Eurex defined TSLs on a product level will be applied
 - As consequence, all Product Assignment Groups are assigned to all Business Units
 - Trading in T7 is possible, when TSL of the Business Unit of that product are not null
- CMs can already restrict their DC Market Participants in T7 by defining Pre-Trade Risk Limits on a product level. New in T7 Release 8.0:
 - Possibility to define separate Pre-Trade Risk Limits for order book and TES trading
 - On-Book trading: only for selected products primarily associated with the extended trading hours
 - TES trading: planned to be introduced for all products
- Note for Simulation:
T7 will import C7 Product Assignment starting October 15, being effective October 16

Derivatives: Preparation for New Instrument Naming Convention (SARON futures)

- The current Eurex naming convention of the new benchmarks futures (i.e. SARON) is different to the comparable SONIA and SOFR Futures
- These contract names contain the end of the accrual period rather than the start, which is becoming the industry standard for these types of contracts
- T7 Release 8.0 will only introduce the newly required fields and information to prepare the system for the naming change at a later point in time for those products
- Example for naming of a contract:
 - Current naming convention: FSO3 SI **20200319** CS + expiration date on 19.03.2020 commonly referred to as **March 20** contract
GUI display: FS03 Mar20
 - New naming convention: FSO3 SI **20191219** CS + expiration date on 19.03.2020 in the future referred to as **December 19** contract
GUI display: FS03 Dec19
- The name change itself will not be done with T7 Release 8.0, but at a later point in time

Interface	Changes
Reference Data	ContractDate (30866) and ContractMonthYear (32340) will be introduced in RDI/RDF. Until change, fields will be filled with MaturityDate and MaturityMonthYear respectively.

Cash: Continuous Auction with Specialist (CA-S)

The functionality will resemble the functionality of the Xetra trading system. Main differences are:

- No inquiries, except in GUIs
- Locked Stock processing
 - Locked Stock processing will be adapted to T7 interface logic
 - For detailed scenario descriptions, please refer to the *Functional Reference*
- Quoting Periods
 - Submission of indicative, PWT, and matching quotes will only be allowed within the Quoting Periods, when they are defined
- Specialist Specific Information in ETI – no quoting support in GUI
- Order quantity can be modified after order entry by users and Specialists
- TSO/OCO will be fully integrated in T7 and not modifiable by the Specialist
- No PWT will unfreeze the order book automatically in CA-S

T7 Börse Frankfurt will be available in its own dedicated environment. The following changes apply when compared to T7 Xetra

- Trading will be performed via ETI low-frequency sessions only
- Dedicated FIX sessions for T7 Börse Frankfurt will need to be ordered, if required
- Market Data will be offered via MDI, EOBI, and EMDS

Cash: Instrument Reference Data changes

New listing opportunities for instruments:

- Warrants can be listed with *Unit of Quotation* “Pieces” or “Percent”
- Bonds can be listed with *Unit of Quotation* “Pieces” or “Percent”

The following listings will be **changed** when instruments will be migrated from the Xetra trading system to T7 Börse Frankfurt:

- Börse Frankfurt: the unit quoted bonds currently setup as equities will be setup as bonds
- Börse Frankfurt Zertifikate: instruments listed as bonds will be listed as warrants in T7

Cash: Continuous Auction with Specialist (CA-S)

Interface	Changes										
ETI	<ul style="list-style-type: none"> • New Trading Capacity 3 = <i>Issuer/Liquidity Provider</i> for quoting • New Clearing Account 'I' in <i>Account of Trade Notification</i> • New <i>TradingSessionSubID</i> 105 for Special Auction • Introduction of <i>Single Quote Request</i> to specify private quote data for quotes • Specialist related messages: <ul style="list-style-type: none"> • Quote Messages – Quote Type <table border="1" data-bbox="556 654 1684 936"> <thead> <tr> <th data-bbox="556 654 718 708">Value</th> <th data-bbox="718 654 1684 708">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="556 708 718 762">1</td> <td data-bbox="718 708 1684 762">Indicative Quotes</td> </tr> <tr> <td data-bbox="556 762 718 816">101</td> <td data-bbox="718 762 1684 816">Tradeable (Matching) for Matching Quotes</td> </tr> <tr> <td data-bbox="556 816 718 871">102</td> <td data-bbox="718 816 1684 871">Tradeable (Price without Turnover) for PWT Quotes</td> </tr> <tr> <td data-bbox="556 871 718 936">103</td> <td data-bbox="718 871 1684 936">Tradeable (Matching) for Matching Quotes for Special Auction</td> </tr> </tbody> </table> • Specialist Data Stream (RefApplId 11 (Specialist Data) and Subscription Scope Specialist Data) • Specialist Specific Instrument Information (Reception of state change information) • Specialist Security State Change Request(to freeze or unfreeze the order book) • Specialist Security State Change Response (answer to the Specialist Security State Change Request) • The <i>Issuer Security State Change Request</i> can be used by the Liquidity Provider for the Knock-out functionality if the instrument is activated by the exchange 	Value	Description	1	Indicative Quotes	101	Tradeable (Matching) for Matching Quotes	102	Tradeable (Price without Turnover) for PWT Quotes	103	Tradeable (Matching) for Matching Quotes for Special Auction
Value	Description										
1	Indicative Quotes										
101	Tradeable (Matching) for Matching Quotes										
102	Tradeable (Price without Turnover) for PWT Quotes										
103	Tradeable (Matching) for Matching Quotes for Special Auction										

Cash: Continuous Auction with Specialist (CA-S)

Interface	Changes
FIX	<ul style="list-style-type: none"> All order, request for quote, trade and status related messages will be enhanced New logic to capture the scenarios in Locked Stock relating to order transactions in state <i>Pending</i> <i>Security Status Definition</i> Request allows Issuer to knock out instruments
Market Data	<p>New message for mass instrument changes</p> <ul style="list-style-type: none"> New instrument states <i>Pre-Call</i> and <i>Freeze</i> Special Auctions will be marked in <i>TradeCondition</i> as 'SA'
Reference Data	<p>New fields in RDI, RDF, and All Tradeable Instrument File:</p> <ul style="list-style-type: none"> the Specialist information, the Specialist User Group and Liquidity Provider User Group information Auction Type (e.g. Single Auction, Special Auction) Warrant Type (e.g. Certificate) Quoting Periods <p>New fields in All Tradeable Instrument File:</p> <ul style="list-style-type: none"> Price Currency First Trading Date Last Trading Date Deposit Type

DBAG recommends to use the RDF or the All Tradeable Instruments File

Cash: Continuous Auction with Specialist (CA-S)

Interface	Changes
GUI	<ul style="list-style-type: none"> • Introduction of the new trading restriction “Special Auction” in all order entry and modification views as well as in the <i>Orders</i> view. • Trades resulting from Special Auction price determination will be marked specifically in the <i>Time and Sales</i> view <p>Quote maintenance will not be supported via the Trader GUI but via ETI only</p>
Reports	<p>Report content is ported from the Xetra trading system to T7, adjusting keys to conform to T7:</p> <ul style="list-style-type: none"> • CB142 Fee Per Executed Order T7 Boerse Frankfurt • CB150 Fee Overall Summary T7 Boerse Frankfurt • CB160 Fee Statement T7 Boerse Frankfurt • CB162 Monthly Specialist Refund • CB242 Specialist Service Fee Per Executed Order • CB243 Specialist Service Fee XFS Per Executed Order • CB250 Specialist Service Fee Overall Summary • CB253 Specialist Service Fee XFS Overall Summary • CB260 Specialist Service Fee Statement • CB263 Specialist Service Fee XFS Statement

Questions about CA-S?
Visit our experts in S01

Cash: Quote Request Solution (QRS) in Continuous Auction with Specialist Trading Model

- QRS will be offered for all asset classes (new for trading venue Börse Frankfurt)
- Workflow will resemble workflow in the Xetra Trading System
 - Private RfQ to Specialist with unique *QuoteID*
(uniqueness constraint: BU - instrument level – Business Day)
 - Specialist may offer a private quote
 - Order referencing the *QuoteID* can be entered that will be fully executed by the Specialist
 - A validity timer in all three steps above will ensure due processing.
 - In case the validity timer expires, QRS workflow will be terminated
- The QRS workflow will be offered via ETI and FIX

Note about *QuoteID*

- Different validation and uniqueness constraints in context of
 - QRS workflow (BU - instrument level – Business Day)
 - (Mass) Quote Identifier submitted by Specialist/Market Maker (no validation)
 - Xetra EnLight (*QuoteID* set by T7)

Cash: Quote Request Solution in Continuous Auction with Specialist Trading Model

Interface	Changes
ETI	<ul style="list-style-type: none"> • New workflow for QRS will be introduced • <i>QuoteID</i> will be added to QRS workflow related messages (e.g. RfQ, order entry) • Specialist specific messages and notifications will be introduced
FIX	<p>The FIX interfaces will correspond with the changes in the ETI interface:</p> <ul style="list-style-type: none"> • New message flows via messages <i>QuoteRequest</i> , <i>Quote</i> and <i>NewOrderSinglePrivateQuote</i> will be added to the message <i>QuoteRequest</i> • <i>QuoteID</i> is added to the message <i>NewOrderSingle</i> • <i>RefOrderID</i> and <i>RefOrderIDSource</i> will be added to the message <i>ExecutionReport</i> • New messages <i>Quote</i> and <i>User/QuoteRequestReject</i>
Market Data	No explicit change
Reference Data	No explicit change
GUI	QRS will not be offered via GUI
Reports	<i>TC540 Daily Order Maintenance</i> is enhanced to display the <i>QuoteID</i> of the QRS workflow and associated deletions in case of expiry of order validity timer

Cash: CCP and non-CCP Trading in one Market

- In T7 Börse Frankfurt, both CCP and non-CCP instruments will be traded.

Interface	Changes
ETI/FIX	Trade Notifications and Trade Capture Report will include the counterparty information of non-CCP trades.
Reference Data	<p>RDI/RDF: Identification via <i>PostTradeAnonymity</i></p> <ul style="list-style-type: none">• CCP instruments = Central Counterparty (2)• Non-CCP instruments != Central Counterparty (2) <p>All Tradeable Instrument File: Identification via <i>CCP eligible Code</i> (10).</p> <ul style="list-style-type: none">• Y = Instrument is CCP eligible• N = Instrument is not CCP eligible

Further enhancements

Description	Cash Market	Derivatives Market
Full interface support of BTRF profiles		✓
DMA Flagging for Orders	✓*	✓*
Settlement Internalisation and Bilateral Aggregation	✓	
Mass Quote Response contains status of both quote sides	✓	✓
The Execution Summary message via the Enhanced Order Book Interface (EOBI) will include the hidden quantity information (e.g. iceberg orders)	✓	
TES Trading for SEC Approved Products		✓
Possibility to allow non-CCP Trading on User Level	✓	
New Role <i>TM Trade Overview</i> – users can only see trades but no orders	✓	✓
New valid values in Security Types (relevant for Cash Market only)	✓	✓
Topology Changes of Low Frequency Gateways	✓	✓
New Depository Type for NCSC-T Instruments (AKT)	✓	

*Registration required

Technical changes - EOBI and EMDI

In EOBI, a *MassInstrumentStateChange* message will be introduced.

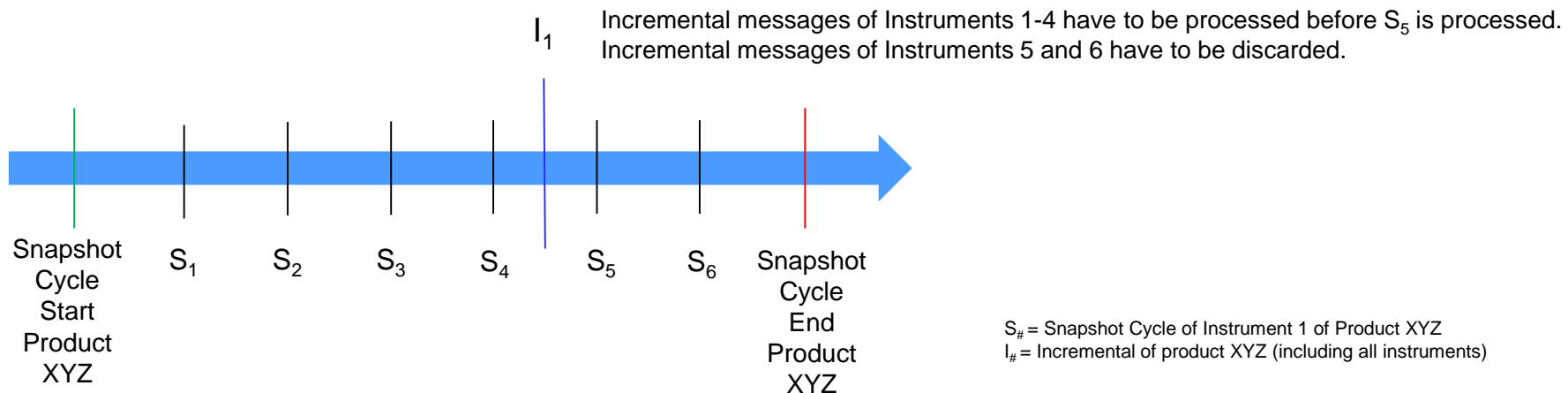
Examples of functional scenarios, which will be reported via the EOBI *MassInstrumentStateChange* message are:

- T7 Börse Frankfurt product-wide instrument state changes
- the initial instrument states (all markets, simple instruments)
- Product-wide fast market (all markets)

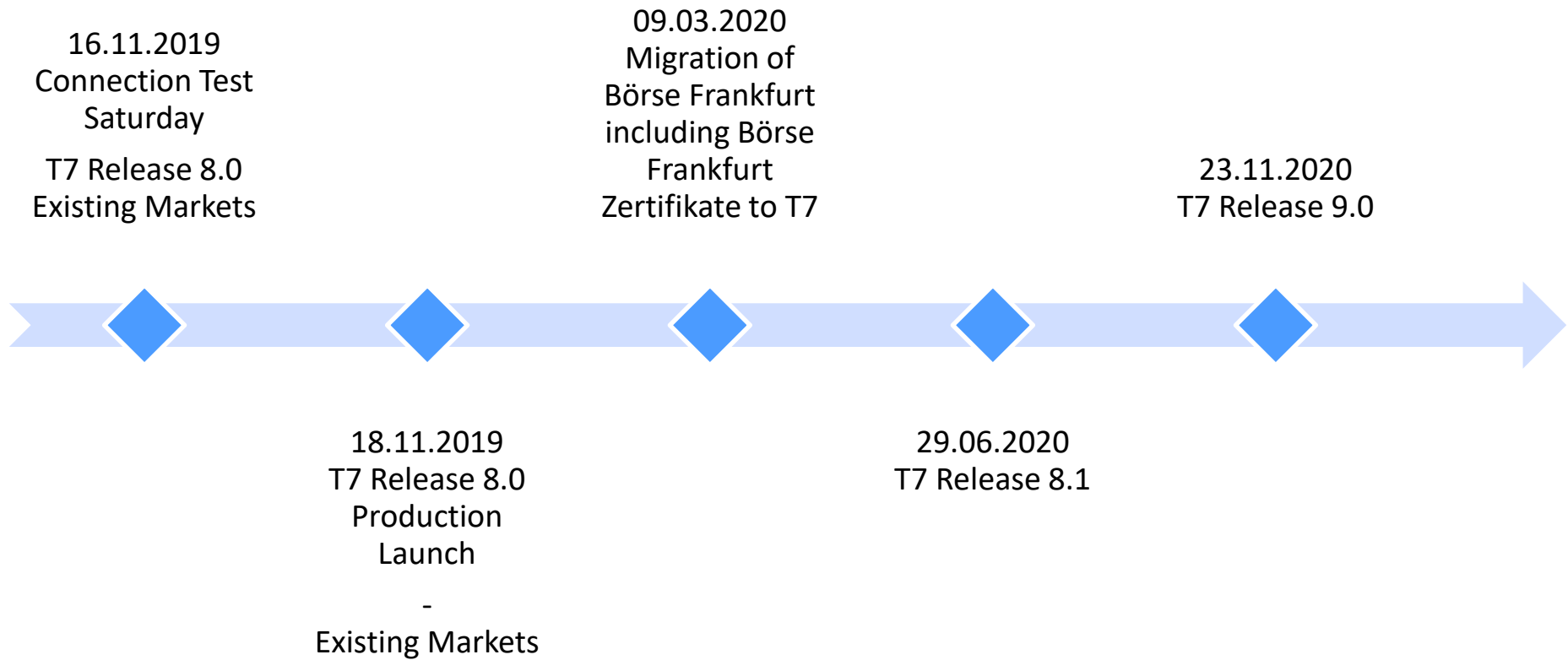
A new paging mechanism using *LastFragment* will be introduced in EOBI and EMDI in the respective *MassInstrumentStateChange* messages

Technical changes - Split snapshot cycles in MDI

- A snapshot cycle will no longer be sent contiguously for all instruments, but in a disjunct subset of instruments of a specific product
- Incremental messages received any time in between snapshot cycles subsets may still belong to instruments of either previous snapshot cycle subsets or subsequent snapshot cycle subsets
- When receiving snapshots and incremental messages, the participant's applications will have to ensure the proper mapping of incremental messages to the correct snapshot to build an initial baseline using the message sequence number
- Incremental messages have to be processed immediately **before reception of further** snapshot messages of a product
- Please note that multiple snapshot messages can be packaged together



Production timeline





Thank you for your attention!

Questions?

For further questions, please contact your Technical Key Account Manager via your VIP number or via cts@deutsche-boerse.com

Share your thoughts! #ITOpenDay19 @DeutscheBoerse