

Trading Roadmap 2022

"So it's been kind of a long road, but it was a good journey altogether."*

After almost 32 years the Eurex/Xetra Systems have finally been shut down in 2021/2020!

Deutsche Terminbörse launched its trading platform for derivatives on 26 January 1990;

Deutsche Börse launched its cash trading platform Xetra on 28 November 1997.

Eurex (the successor of DTB) launched T7® for trading derivatives on 3 December 2012;

Eurex launched C7[®] for clearing derivatives on 9 May 2016;

Xetra moved the core cash trading business to T7[®] on 3 July 2017;

Xetra has moved Börse Frankfurt and Deutsche Börse Zertifikate to T7[®] on 24 August 2020.

In July 2021 the derivatives Contract Life Cycle has been moved from the "old" Eurex system to T7.

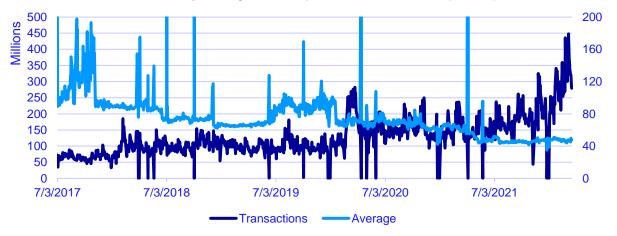
In November 2021 the member master data maintenance has been moved from the "old" Eurex system to C7.

On 16 December 2021 the old Eurex system has been shut down for good after almost 32 years of service.

Thank you for going all the way with us!

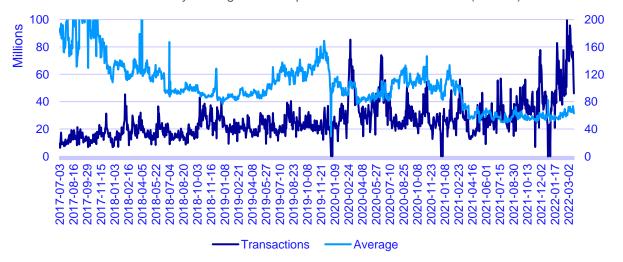
T7 technical roadmap 2021/2022





Feb-Mar T7 matching engine HW re-fresh 2021: Mar 2021: Launch of new T7 FIX LF gateways for drop copies Mar-Apr 2021: Launch of new merged partition specific gateways & matching engine architecture 2021: Migration of FX products from T7-FX to T7 May 2021: T7 9.1 launch Jun Jul 2021: Migration of derivatives contract live cycle to T7 Nov 2021: T7 10.0 launch including full FIX LF gateway functionality as well as ability to list NextGen contracts Dec 2021: Eurex Classic is shut down for good Feb 2022: Additional partitions for Eurex and Xetra

Volume & Daily Average Roundtrip of T7 Futures Transactions (in usec)



Next steps:

10. Jun
 2022: End of support for "old" Xetra/Eurex FIX Gateway.
 27. Jun
 2022: T7 10.1 launch
 21. Nov
 2022: T7 11.0 launch

T7 Release 10.0 activities / T7 Release 10.1

In the course of T7 10.0 new landing pages for the access to the T7 GUIs have been introduced on 23. February 2022.

The addresses (URLs) and servers of the previous T7 GUI Landing Pages will be decommissioned on 6. June 2022.

On 10 June 2022 the support of the Xetra and Eurex legacy FIX GWs will be terminated.

Deutsche Börse Group will introduce T7® 10.1 on 27 June 2022

The major scope items of the release are:

Eurex:

- Next step towards Next Generation Exchange-Traded Derivatives Contracts
- Transaction Size Limits Enhancements including the Introduction of Clearer TSLs
- Simplified Variance Futures

Xetra:

Xetra EnLight enhancements (Auto Execution, Staging of Request-for-Quotes, Historic Negotiation Event Data, Off-Book Only Trading)

All Markets:

- Possibility to test T7 gateway (both ETI and FIX LF) connectivity on (most) weekends
- Improved performance of the T7 matching engines
- Optional encryption (on transport layer) for FIX LF sessions

T7 Release 11.0

Deutsche Börse Group will introduce T7® 11.0 on 21 November 2022

The major scope items of the release are so far:

- Eurex:
 - Pre-Trade Risk Limits for Options (on product level)
 - Eurex EnLight enhancements
 - New Total Return Futures
 - Inclusion of the Herfindahl–Hirschman Index in the Enhanced Order Book Market Data Interface
 - Off-book trade publication via the Enhanced Order Book Market Data Interface
- Xetra:
 - Pre-Trade Risk Limits
- All:
 - Optional encryption (on transport layer) for ETI low frequency sessions
 - Improved performance of the T7 matching engines
 - Introduction of non-recoverable Eurex and Xetra EnLight Quotes
 - Split of News Service by market

Note that T7 11.0 will not provide backwards compatibility for the interface changes for Trading, Market and Reference Data interfaces

Thank you!

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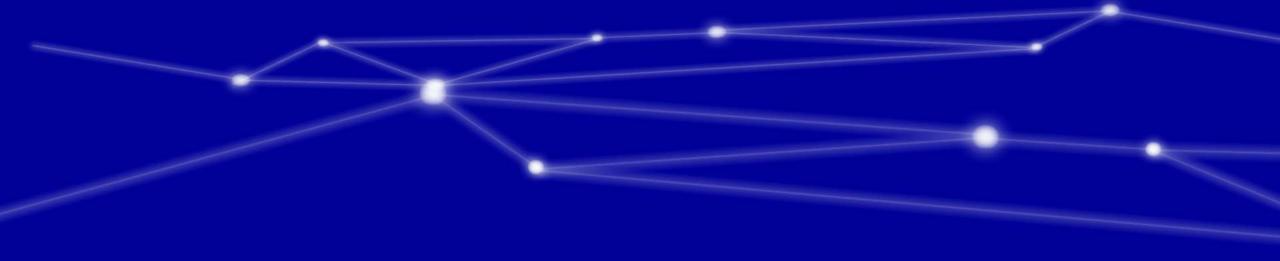
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Clearing Roadmap 2022



Eurex Clearing technology roadmap Main drivers

ETD Clearing services are further extended:

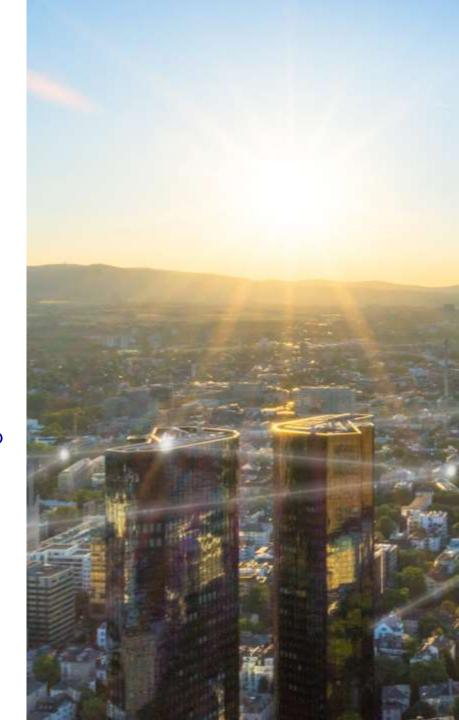
- Brexit: Even though the transition period has been extended by the European Commission, we see transition of volume to Eurex Clearing and significant onboarding activity
- Futurization: Further complementary listed products to offer cleared alternatives to bilateral swap trading – less standardized/more customized listed derivatives – e.g., based on customized indices
- Technology consolidation: final re-platforming steps, onboarding of additional services to Eurex Clearing's C7[®], focus on repo clearing in September
- Leading risk management services: further extending methodology and processing leadership in risk management, more flexible pricing and data management capabilities, emerging customer offerings



Eurex Clearing technology roadmap Main drivers

Meanwhile, EurexOTC Clear offering has gained traction

- Number of connected clearing members, non-clearing members and registered customers have grown further
- Pricing and market quality comparable with main competitor
- Market share has further grown based on outstanding volume, on some days exceeding 50%
- Significant payouts to our most active participants in the context of the partnership program
- Regulatory discussion on potential new perspective on equivalence between UK and EU is expected to drive further volume growth



Eurex Clearing technology roadmap Upcoming major milestones

Major mandatory system upgrades are planned in 2021/2022.

Q1-2/2022

- Securities Clearing: CSDR Rollout completed
- Eurex Clearing's C7[®] Releases: Next Generation Contract testing and Introduction, functional Average Pricing extension, ISO 20022 Introduction for payment messaging
- Eurex Clearing Prisma ® Releases: Support Next Generation Contract testing and Introduction, final re-platforming steps
- EurexOTC Clear Releases: Extend currency range, ongoing extension of risk free rates in line with market developments
- NextGen ETD Technical changes to support next generation, flexible exchange traded derivatives contracts in close alignment with member and ISV community

Eurex Clearing technology roadmap Upcoming major milestones

Major mandatory system upgrades are planned in 2021/2022.

Q3-4/2022

- Major release window aligned with T7[®] planned for November 2021
- Eurex Clearing's C7[®] Releases: Extension of supported ETD products
- EurexOTC Clear Releases Further functional extensions, enhance in house aggregation/netting capability, extend product and currency support
- Eurex Clearing Prisma ® Releases: Extension of supported ETD products, first steps towards next generation risk management technology
- Securities Clearing:
 - Support of ECB's T2/T2S harmonization initiative
 - Replatforming of Euex Repo Clearing to C7 technology
 - Release scope to support Clearstream's collateral mobility initiatives

Eurex Clearing technology roadmap Upcoming major milestones

Outlook 2023

- Focus on extending European home market settlement network, First rollout milestones for our next generation risk management systems
- Strong innovation focus based on establishing cloud based clearing services, focusing on advanced integration and self-service options for market participants
- Drive forward ambitious product roadmap for exchange traded and OTC derivatives products

NextGen ETD Service Upgrade Rollout Approach

NextGen ETD rollout approach closely aligned with vendors and participants

- Technical Release launches fully decoupled from actual product launch
- Extensive testing and simulation periods since early 2022
- Backwards compatible, new interface/reporting fields initially not needed to identify contracts
- Close alignment with major ISVs
- Ongoing communication with market participants to align on technical impact and jointly develop product launch schedule



NextGen ETD Service Upgrade

Rollout Approach

June 27, 2022 - Technical Release Scope

- T7: Changes already introduced, new Instrument Subtypes for Futures Calendar Spreads not used with Release launch
- C7: New FIXml request fields will be optional, new broadcast fields and report content can be ignored with Release launch,
- Prisma: Approach comparable to C7, Transparency Enabler and reports will contain new fields that can be ignored with Release launch
- Most major vendors already communicated backwards compatibility for this technical launch

Schedule for product launches to be detailed

- Introduction of multiple expiration per month on product level
- New contract logic YYYY-MM-DD allows implementation of fully automated trading strategies that are currently traded offbook, OTC or back-to-back
- Following business initiatives are enabled and build up on the new ETD contract concept:
 - Integration of weekly contracts into the standard contract
 - Volatility strategies in Equity Options
 - Basis trading for MSCI futures



Eurex Clearing technology roadmap

Innovation shapes new offerings

Extension of Cloud usage

- Further momentum created by extensive partnerships of CME and Nasdaq with Google and AWS
- Deutsche Börse and some of the main cloud platforms continue to work on compliant contracts and services, in close alignment with regulators
- Strategic partnerships to develop joint contract standards in the EU financial services industry and speed up innovation to financial markets
- Deutsche B\u00f6rse continues joint audit activities together with other German financial services firms to validate regulatory compliance
- Furthermore, new scalability and resiliency options will become possible by enabling cloud based production workload

Advanced Integration and Self Service Options

- Focus area of our next generation risk management technology
- Enabled by modular C7 architecture
- Serviced based system components interact via RESTful APIs
- API layer planned to expose clearinghouse and particularly risk management services to members and vendors
- Enabling new levels of interaction, more flexibility and customization
- Individual information consumption rather than one size fits all
- Enabling seamless integration of backoffice and clearinghouse processes, supporting market-wide innovation
- Get an impression:
 Prisma Margin Estimator in Cloud (Cloud PME) (eurex.com)

Thank you!

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