Market Update – New Trading Platform

23 November 2022





Housekeeping

- Questions please submit any questions you have throughout the webinar using the Q&A function. If given the option, please direct your question to "All panellists" rather than any individual speaker. We will do our best to answer all questions, but will respond directly to you with the answer to any we don't have time for, and add them to the FAQs on the website.
- **Slides** slides will be distributed to everyone by email after the session and can be shared with colleagues who are unable to attend.
- Recording this session is being recorded, and the recording will be shared with attendees after the event should you wish to share with colleagues who were unable to join today.
- Follow-up if you have any questions that you'd like to discuss with one of the team directly, please reach out at newtradingplatform@lme.com.



Agenda

The purpose of the forum is to update market participants (members, independent software providers, market data vendors and member clients) on the progress of the LME's new trading platform (LMEselect v10), the new trading GUI (LMEtrader) and new multicast market data platform (LMEsource v4)

1. Recap on scope

New trading platform functionality

2. Update

- Programme time-line
- Market testing time-line
- Go-live migration approach
- LMEtrader

3. Next steps

4. Questions

Please note, the following slides contain a number of dates and timelines that are based on the latest information. Any changes to these dates/timelines will be communicated via the methods described at the end of this presentation.



1. Recap on scope



New trading platform functionality

Q2 2024: What is being delivered?

- New LMEselect v10 offering improved performance and deterministic latency
- Upgraded interfaces: New FIX 5.0 sp2 interfaces replacing current FIX 4.4 interfaces and a new binary order entry interface
- New web-based trading GUI, LMEtrader. Offering improved functionality and wider distribution – available to members and their clients
- New LMEsource v4 providing market data pertaining to the Ring, inter-office and electronic trading venues for all participants connecting to LMEsource v4



2024+ Future functionality

- Functionality relating to an on-screen options market including mass quotes, mass cancels
- Separate market data channels for options and futures
- Self-execution prevention (SEP) and market maker protection (MMP)
- Additional implied functionality: implieds between and implieds chaining



New trading platform: LMEselect v10

New market data distribution system: LMEsource v4

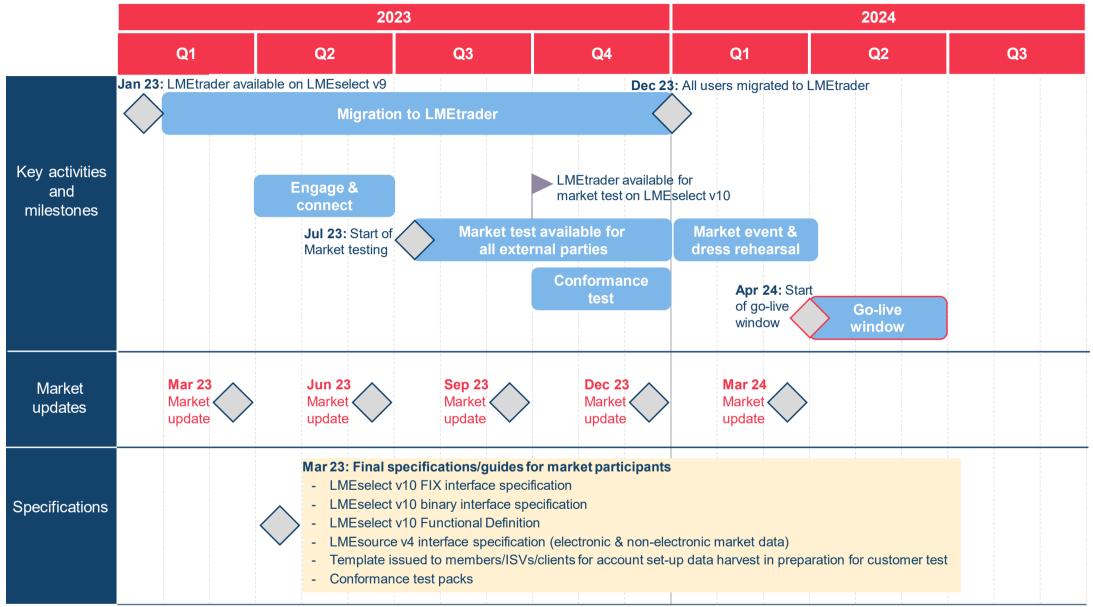
New trading GUI: LMEtrader

2. Update



Programme timeline





ACTION 1: Line up development and testing resources ahead of the start of customer connectivity by Jun-23

ACTION 2: Review specifications available from Jan-23 and revert with any questions by Mar-23



Market testing timeline 2023- 2024

Expected market participant involvement through the coming year and beyond

Apr 2023 - May 2023

Jun 2023

Jul 2023 - Dec 2023

Jan 2024

Feb 2024 - Mar 2024

Engage

Connectivity testing

Open customer test

Market event testing

Dress rehearsal and DR testing

Market participants will be asked to provide information needed to prepare the customer test environment.

This will include details of testing locations for firewall configuration, required user accounts and planned test coverage (FIX, binary LMEtrader).

Market participants will be asked to initiate connections to the customer test gateways in order to confirm firewall configuration is correct.

Successful connections will enable them to commence development and testing of their interfaces once the environment is opened.

Connectivity testing is expected to continue after customer test opens for market participants who want to engage later.

Market participants will be expected to commence development and testing of their trading interfaces and electronic market data subscription culminating in the use of Itiviti's FIXConductor tool to ensure all incoming messages conform to specification in form and content.

Deployments of LMEsmart, LMEmercury, and non-electronic data services will follow the initial delivery as these complete development and testing. Having completed conformance testing, market participants will be expected to participate in coordinated testing simulating events that impact all participants during normal business running.

Additional planned activity will include LME initiated events such as trade halt, trade pause and changes to market schedule, as well as limited service failures to ensure appropriate behaviour of both LME and market participant systems.

The final phase of the testing will allow both market participants and the LME to practice the cutover activities in the presence of market participant connections and to ensure that operational procedures required during the product transition from LMEselect v9 to LMEselect v10 are correct.

Completion of the dress rehearsal is expected to lead into production readiness and disaster recovery testing.



Go-live migration approach

Approach revised to a single migration event

- To minimise operational complexity and migration risk the LME can confirm that the migration from LMEselect v9 to LMEselect v10 will follow a single migration event/weekend.
- <u>During</u> the single migration weekend:
 - Trading for all products will migrate from LMEselect v9 to LMEselect v10
 - Market data for all products and data sets will migrate from LMEselectMD/LMEsource v3 to the consolidated LMEsource v4 platform

Note: This is different to the previously communicated "phased" migration approach

- <u>Prior</u> to the migration weekend participants will be invited to access the LMEselect v10 and LMEsource v4 target production environment to enable:
 - Pre go-live setup, configuration and validation
 - Participation in migration and rollback dress rehearsals
 - Participation in disaster recovery/failover tests



LMEtrader



LMEtrader overview



LME has partnered with TT to provide the front-end interface for LMEselect v10



Lowering barriers to entry



Broadening participation in our market



Enhancing the user experience



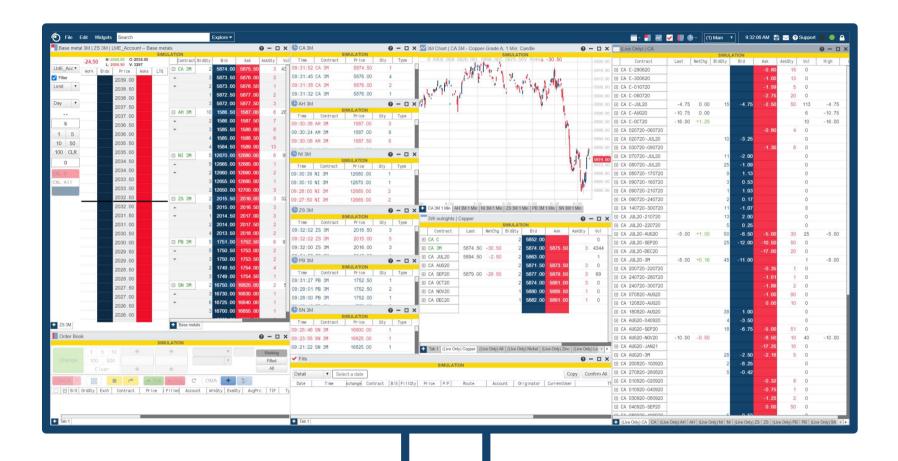
Early adoption





Lowering barriers to entry

Advanced browser-based trading GUI, fully customisable



Available on v10







Broadening participation in our market

Direct access to members and their clients







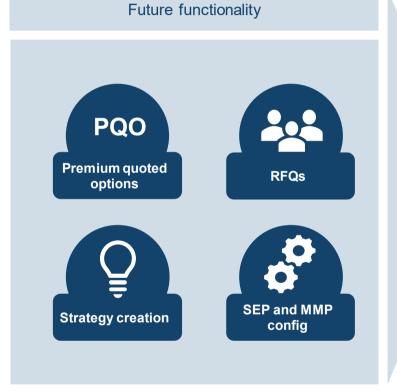
Enhancing the user experience

Delivering new functionality and supporting future functionality

2023 2024 2024+





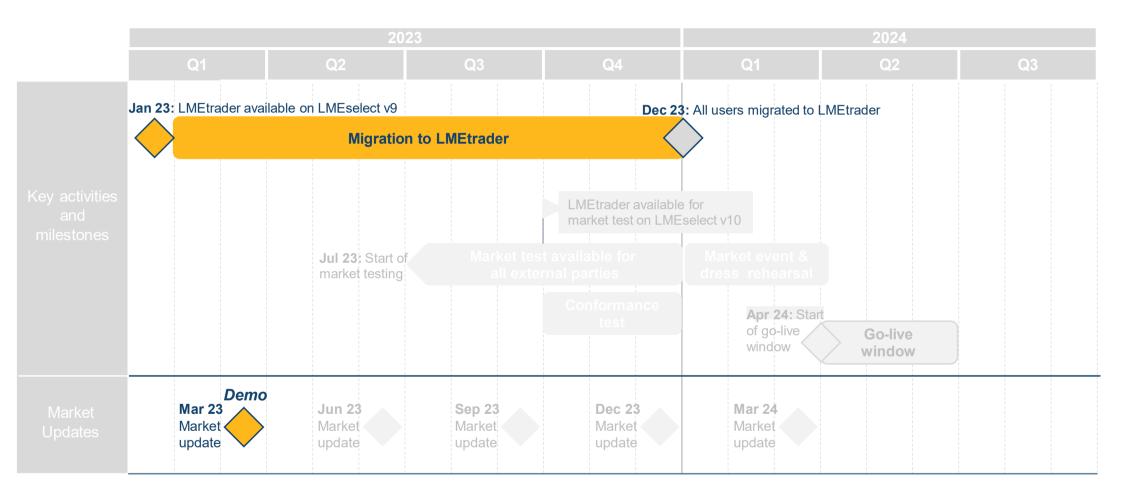






Early access from January 2023

To support user familiarisation and encourage early adoption





3. Next steps



Next steps

Actions recap

Market	participants next steps:	Due:
	Action 1: Commence user training, testing and migration to LMEtrader on LMEselect v9	Now
	Action 2: Line up development and testing resources for the start of LMEselect v10 and LMEsource v4 customer testing in Jul 2023	Now
\times		
(O)	Action 3: Review specifications available from Jan 2023 and revert with any questions by Mar 2023	Jan-23
X		
	Action 4: Ensure all users have migrated to LMEtrader and connections to the current LME GUI are removed by Dec 2023	Dec-23



4. Questions



Appendix



External communications and support

Regular updates and queries

Updates

- Regular updates for the programme will be communicated via the weekly Relationship Management email, including the notification of new/updated document artefacts posted onto LME.com https://www.lme.com/en-GB/Trading/New-initiatives/New-trading-platform
- Next update forum proposed for Q1 2023

Queries

 Any questions related to the new trading platform can be submitted via the newtradingplatform@lme.com inbox



Application versions

Summary of the current and future application version numbers

Trading venue	Current trading platform	Future trading platform	Current market data platform	Future market data platform
Electronic	LMEselect v9	LMEselect v10	LMEsource v3 LMEselectMD	LMEsource v4
Ring			LMEselectMD	LMEsource v4
Inter-office			LMEselectMD	LMEsource v4



Market design – market partitions

Market partitions offering performance, predictable latency and scalability

Order management

Each partition gateway (binary protocol) offers direct high performance access to a single ME partition

Order management

Convenience gateways (FIX 5.0) offer single connection access to all markets

Risk management

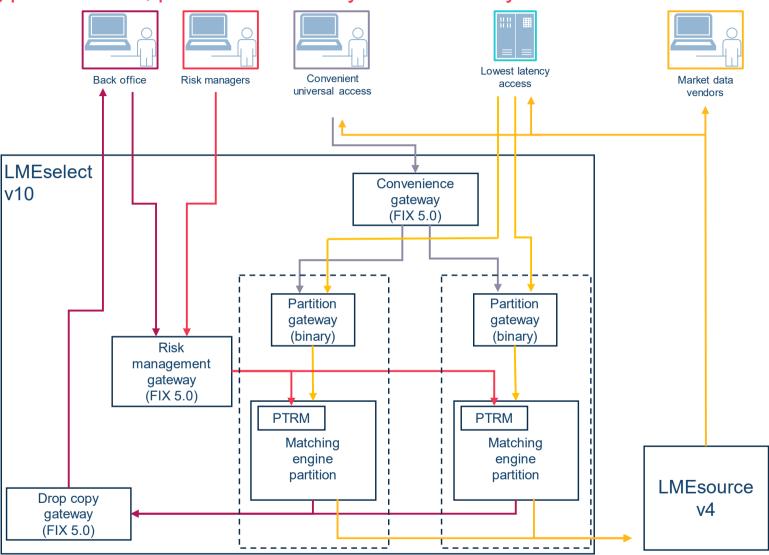
Single risk management gateways (<u>FIX 5.0</u>) offer configuration of PTRM for each partition

Back office

SEP and MMP configuration across all markets
Single drop copy gateways (<u>FIX</u> <u>5.0</u>) deliver FIX execution reports across all markets

Market data

LMEsource v4 provides data access across all markets





LMEselect v10 – FIX and binary interfaces

LMEselect v10 will support both FIX 5.0 sp2 and Binary interfaces

	FIX 5.0 sp2	Binary	
Objective	Single gateway connection to all market partitions	 Fastest route to a single partition Specifically designed to reduce latency 	
Principles	Aligned with FIX principlesMinimise use of custom tags	 Proprietary protocol, based on the existing HKEX cash binary interface 	
Convenience gateway	Yes	No	
Partition specific gateway	No	Yes	
Drop copy gateway	Yes	No	
Risk management gateway	Yes	No	
Specifications	Available here; https://www.lme.com/Trading/New-initiatives/New-trading-platform/FIX-binary-and-GUI		
Market test service availability	Q3 2023		



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