New Trading Platform Update Forum

20 January 2021

LME
An HKEX Company

SETTING THE GLOBAL STANDARD

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.

- **Slides** – slides will be distributed to everyone by email after the session.

- **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.

Forum overview

LME new trading platform initiative

The purpose of the forum is to update Members, ISVs, Market Data Vendors and Clients on the progress of the LME new trading platform initiative.

1. **A recap of the key areas**
    - TT Trading GUI, "LMEtrader"
    - Market data
    - FIX/Binary gateways
    - Market migration

2. **Updates on**
    - Project timelines
    - Customer testing
    - Go-live
    - Next steps and timeline

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.

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 design – key features and external impacts

New trading platform initiative involves a number of changes that **will** impact market participants

New LMEselect (v10) offering enhanced functionality

New FIX 5.0 interface (replaces current FIX 4.4 interface) offering convenience of industry standard interface

New binary interface offering reduced latency

New market design based on market partitions offering predictable latency and scalability

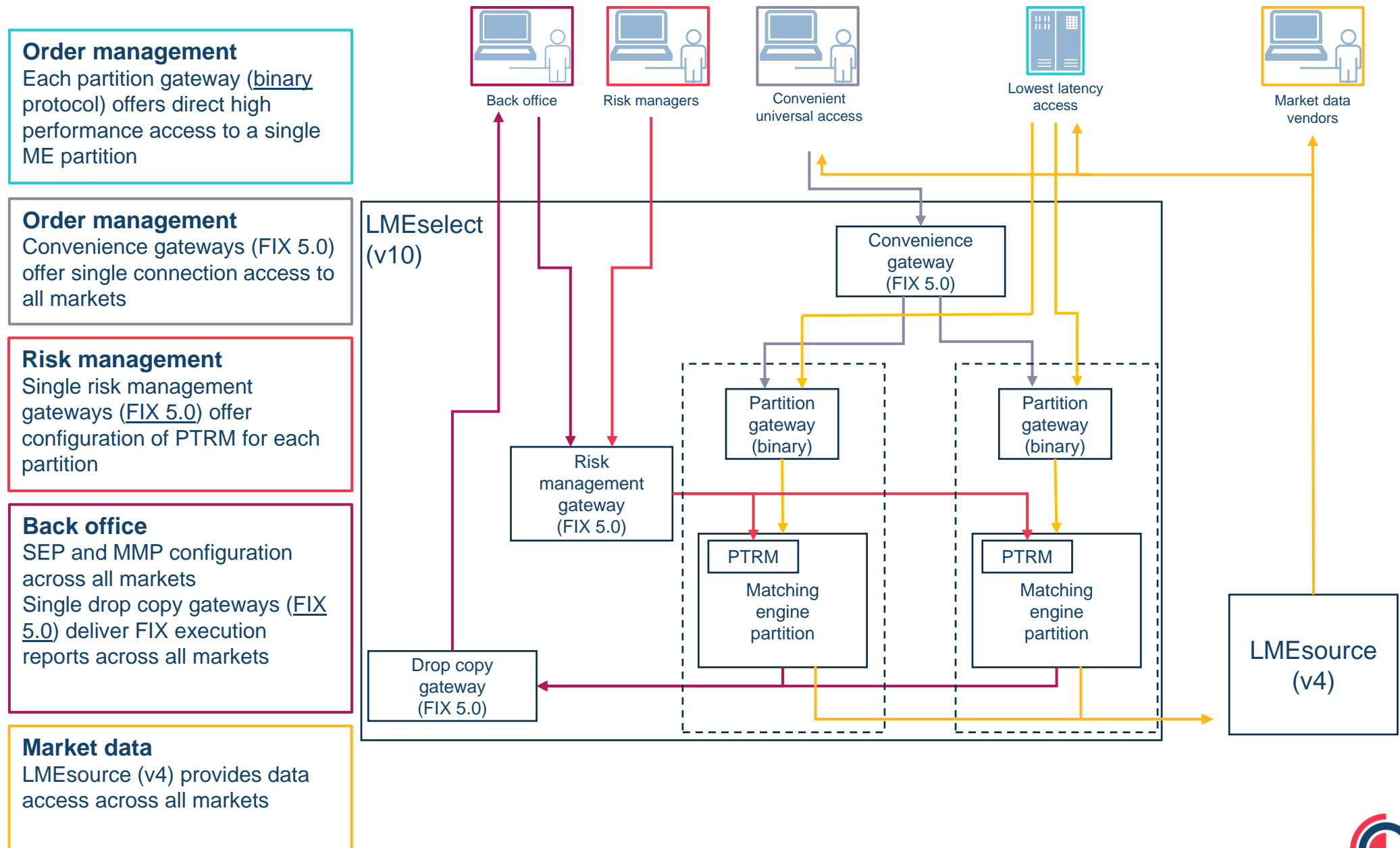New LMEtrader application offering improved distribution

New LMEsource (v4) providing market data pertaining to the Ring, inter-office and electronic trading venues – replaces the current LMEselectMD and LMEsource (v3)

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 (FIX 5.0) offer configuration of PTRM for each partition

Back office
SEP and MMP configuration across all markets
Single drop copy gateways (FIX 5.0) deliver FIX execution reports across all markets

Market data
LMEsource (v4) provides data access across all markets

Back office

Risk managers

Convenient universal access

Lowest latency access

Market data vendors

LMEselect (v10)

Convenience gateway (FIX 5.0)

Partition gateway (binary)

Partition gateway (binary)

Risk management gateway (FIX 5.0)

PTRM

PTRM

Matching engine partition

Matching engine partition

Drop copy gateway (FIX 5.0)

LMEsource (v4)

LMEselect (v10) – FIX and binary interfaces

LMEselect (v10) will support both FIX 5.0 and Binary interfaces

	FIX 5.0	Binary
Objective	• Single gateway connection to all market partitions	• Fastest route to a single partition • Specifically designed to reduce latency
Principles	• Aligned with FIX principles • Minimise use of custom tags	• Proprietary protocol, based on the existing HKEX cash binary interface
Convenience gateway	Yes (excluding mass quotes)	No
Partition specific gateway	No	Yes (including mass quotes)
Drop copy gateway	Yes	No
Risk management gateway	Yes	No
Specifications	Available on the New Trading Platform website; https://www.lme.com/Trading/New-initiatives/New-trading-platform/FIX-binary-and-GUI	
Test Service Availability	Q2 2021 (Connectivity) Q3 2021 (Conformance)	

LMEselect (v10) – timeline

FIX 5.0 & Binary interface

| Q1-21 | Q2-21 | Q3-21 | Q4-21 | Q1-22 | Q2-22 | Q3-22 |

Customer connectivity

Customer test

Go-live

Phased migration from FIX 4.4 to FIX 5 & Binary interface

LMEtrader

LMEtrader – overview

The LME will partner with Trading Technologies to provide the front-end interface for LMEselect (v10)

Lowering barriers to entry

- Advanced browser-based trading GUI
- Mobile access for Android and iOS (if permissioned by member)

Broadening participation in our market

- Direct access to clients and members
- Access to all LME products

Enhancing the user experience

- Rich feature set including options trading functionality and RFQs
- Customisable layout that persists through upgrades

Early adoption

- LMEtrader available Q4 2021 on the current LMEselect (v9) to support user familiarisation and early adoption

LMEtrader – key features

Summary of features provided by the new trading GUI

Access
- ❖ Browser-based access for Chrome, Firefox and Edge
- ❖ Wider distribution with direct access for members and their clients
- ❖ Pre-defined, customisable & sharable workspaces
- ✓ Mobile access for Android and iOS

Order Book Mgt.
- ❖ Broken date spreads
- ❖ Intra-day strategy creation
- ✓ Enhanced merged order books

Market Data
- ❖ Charting and analytics

Premium Quoted Options
- ✓ Submit and subscribe to RFQs
- ✓ Trade premium quoted options
- ✓ "On the fly" options strategy creation

Order Entry
- ❖ Trade the entire LME product suite
- ❖ Market depth ladder
- ❖ Single click order entry

Risk Mgt.
- ✓ PTRM configuration
- ✓ Self execution prevention
- ✓ Kill switch
- ✓ Market maker protection

❖ Supported on LMEselect (v9) and LMEselect (v10)

✓ Supported on LMEselect (v10) only

LMEtrader – prototype screen shot

LMEtrader – timeline

Q1-21	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22	Q3-22

LMEtrader on LMEselect v9

Customer Training/Test

Production
Users migrate from current GUI to new GUI

Functional
Guide issued

LMEtrader on LMEselect v10

Customer test
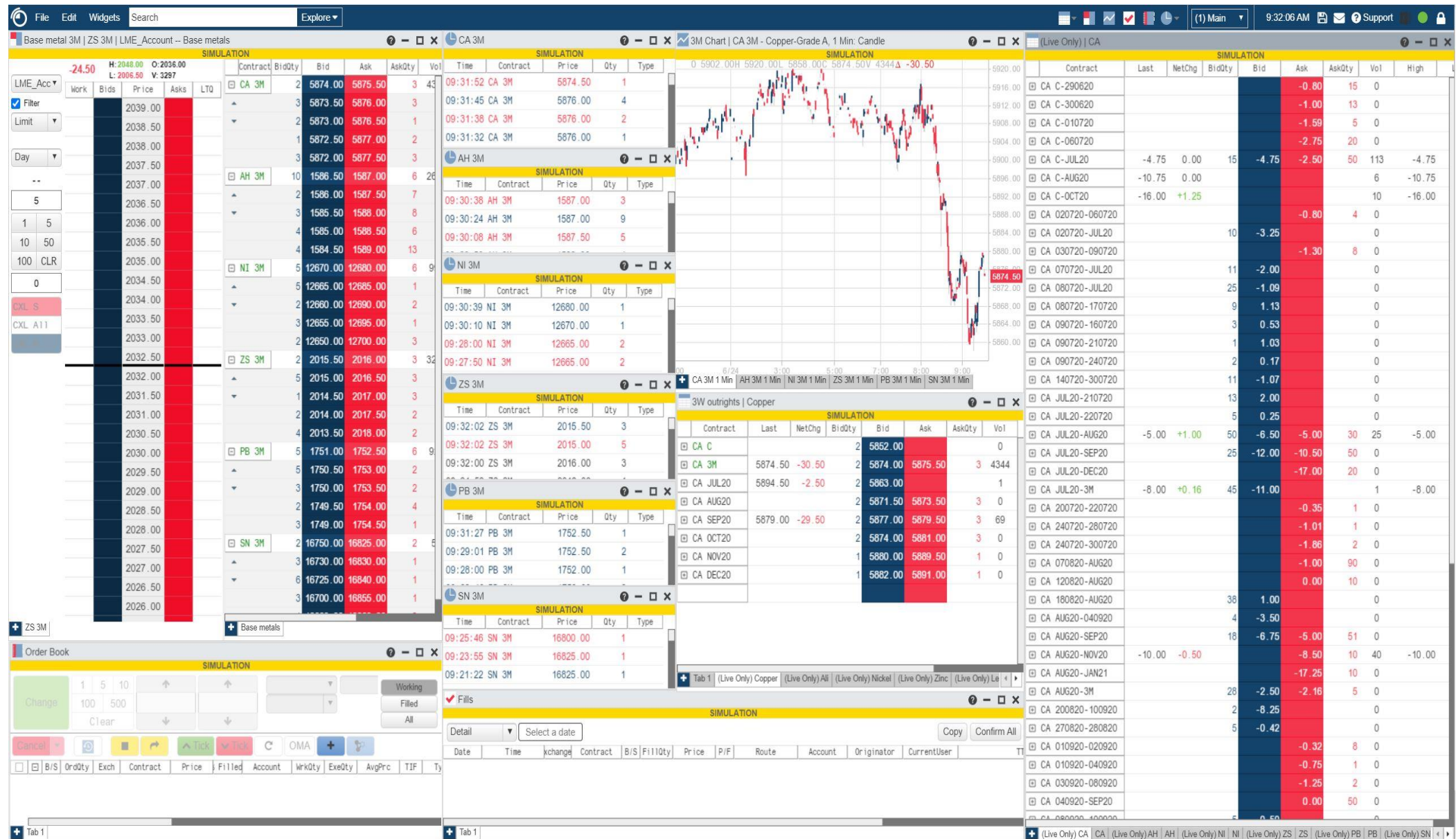
Functional
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Go-live
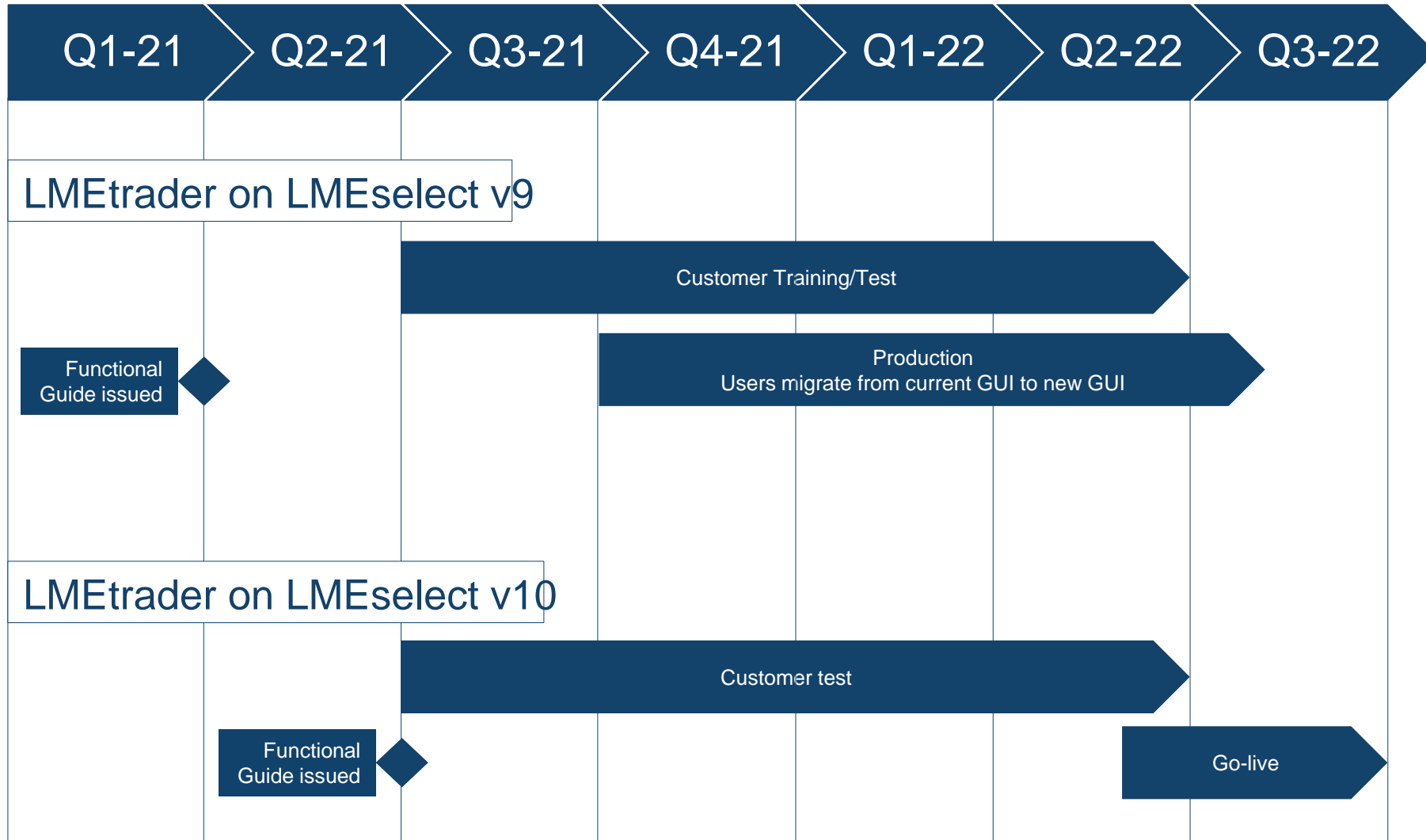
Market data

Market data – electronic trading

All new and fully re-built version of LMEsource (v4) to support LMEselect (v10)

Key features:
- All functionality offered by LMEselect (v10)
- Orders and trades available together in the same market data channel
- Separate channels for options and futures
- RFQ details to be included in the order and trade channel
- Reference data, providing a full list of securities/tradeable instruments
- Publication of ISINs in the reference data channel
- Level 3 product: new order-by-order events published from the electronic market

Key dates:
- Client Interface Specification issued Q2 2020
- Connectivity test Q2 2021
- Test service available from Q3 2021

Please note: The current LMEselectMD & LMEsource (v3) platforms will not support LMEselect (v10) **and will be decommissioned.**

Market data – non-electronic trading

All new and fully re-built version of LMEsource (v4) will provide Ring and inter-office market data

Key features:
- Offer equivalent non-electronic market data for:
  - LME reference prices (eg LME Official Prices, LME Closing Prices, LMEbullion prices)
  - Inter-office and Ring orders and trades
  - Inter-office and Ring reference data
  - Trading volume data
  - Warehouse stock data
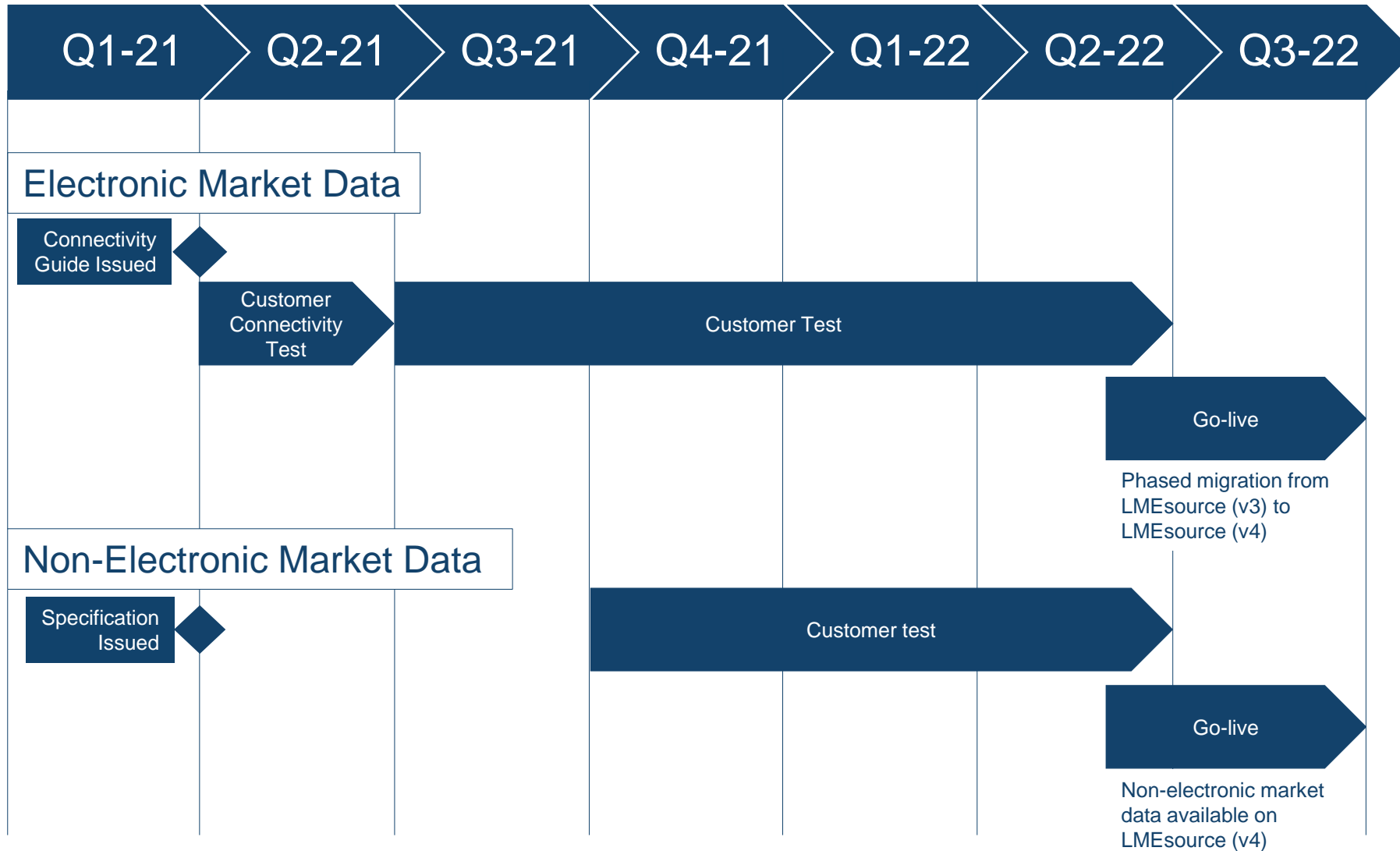 - Risk data (e.g. EOI, MOI and Futures Banding)
  - ISIN data provided

Key dates:
- Client Interface Specification issued Q1 2021
- Test service available from Q4 2021

Please note: The current LMEselectMD **will be decommissioned** as part of the migration to LMEselect (v10).

Market data – delivery roadmap

Q1-21	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22	Q3-22

Electronic Market Data

Connectivity Guide Issued

Customer Connectivity Test

Customer Test

Go-live

Phased migration from LMEsource (v3) to LMEsource (v4)

Non-Electronic Market Data

Specification Issued

Customer test

Go-live

Non-electronic market data available on LMEsource (v4)

Customer testing

Customer test – high-level plan

Q2-21	Q3-21	Q4-21	Q1-22	Q2-22	Q3-22

Connectivity

Market Participants Development & Test

Market Participants Conformance

Non-electronic market data flow testing

Non-functional test

Go-live
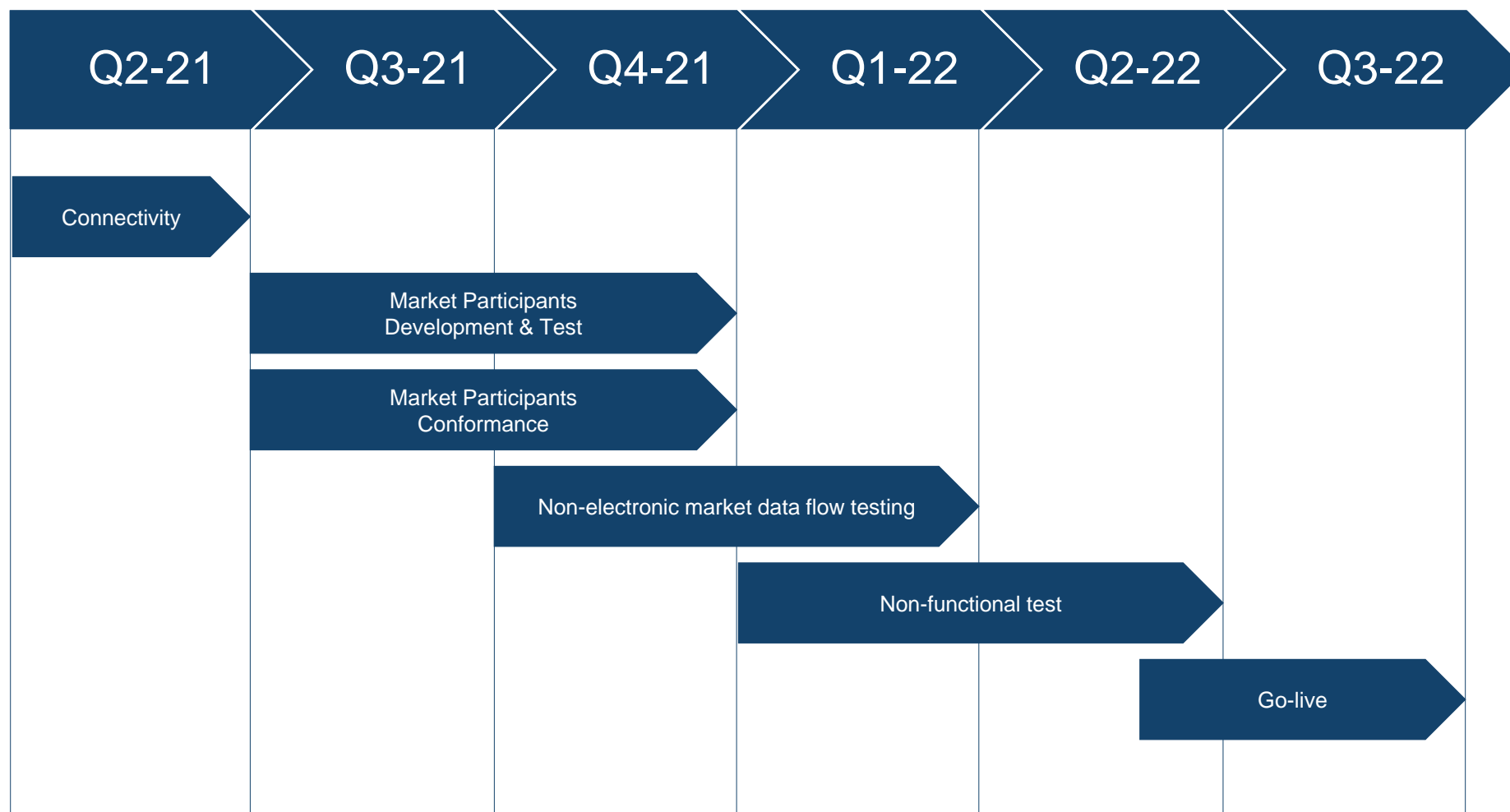
Market migration

Migration approach

Migration approach proposal

- To minimise migration risk from LMEselect (v9) to the new LMEselect (v10) the LME is proposing a <u>phased migration</u>

- Migration phases will be product based

- It is assumed migration will consist of two phases, with a short period between each

- Each migration phase will be "big bang" – no provision for backwards/forwards compatibility

- LME will assist participants with their migration preparation including:

  o Regular communication updates

  o Early visibility of technical specifications

  o Six-month (minimum) test window including dev/test, conformance, end-to-end

  o All migration phases to be rehearsed in a customer test environments

Next steps and timeline

Next steps

New trading platform initiative involves a number of changes that **will** impact market participants

Participant next steps:

Due Date:

- **Line up development and testing resources**
- **Assign Project Manager/Point Of Contact**

Now

- Provide feedback on the LMEselect (v10) FIX 5.0 & binary interface specification

Now

- Provide feedback on the LMEsource (v4) client interface specification for electronic market data

Now

- Provide feedback on the LMEselect (v10) Functional Definition

Q1 2021

- Provide feedback on the LMEsource (v4) client interface specification for non-electronic market data

Q1 2021

High-level timeline

	Q1-21	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22	Q3-22

LMEselect (v10)

FIX & Binary Interface

Functional Definition ◆

Customer connectivity

Customer test

Connectivity Guide issued ◆

Go-live

Phased migration from FIX 4.4 to FIX 5 & Binary interface

LMEtrader

LMEtrader on LMEselect v9

Functional Guide ◆

Customer training/test

Production
Users migrate from current GUI to new GUI

LMEtrader on LMEselect 10

Functional Guide ◆

Customer training/test

Go-live

Market Data

Electronic Market Data

Customer connectivity

Customer test

Connectivity Guide issued ◆

Go-live

Phased migration from LMEsource (v3) to LMEsource (v4)

Non-Electronic Market Data

Specification issued ◆

Customer test

Go-live

Non-electronic market data available on LMEsource (v4)

External communications

Regular and ad-hoc project updates

Member actions
- Please assign a Project Manager/Point Of Contact for LME to liaise with

Ad-hoc queries
- Any questions related to the new trading platform can be submitted via the **newtradingplatform@lme.com** inbox

Regular updates
- Regular updates will be posted onto the LME web site **https://www.lme.com/en-GB/Trading/New-initiatives/New-trading-platform**

Specifications
- LMEselect (v10) Functional Definition to be issued Q1 2021
- LME Systems Connectivity Guide to be issued Q1 2021
- LMEsource (v4) Client Interface Specification for non-electronic to be issued Q1 2021
- LMEtrader functional guide due to be issued Q2 2021

Update forum
- Next forum scheduled for Q2 2021

Disclaimer