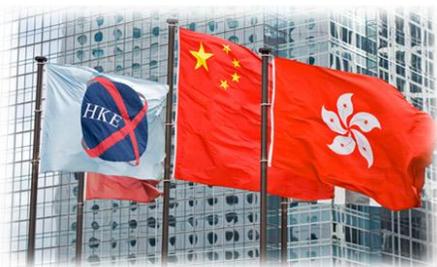




# Ecosystem Forum 2013

March 21, 2013

**Richard Leung** *Senior Vice President, Co-Head of IT Division*



# Agenda



**1** HKEx Group Strategic Plan 2013-2015

**2** HKEx Orion updates

# Group Strategic Vision and Mission for 2013-2015



## Vision

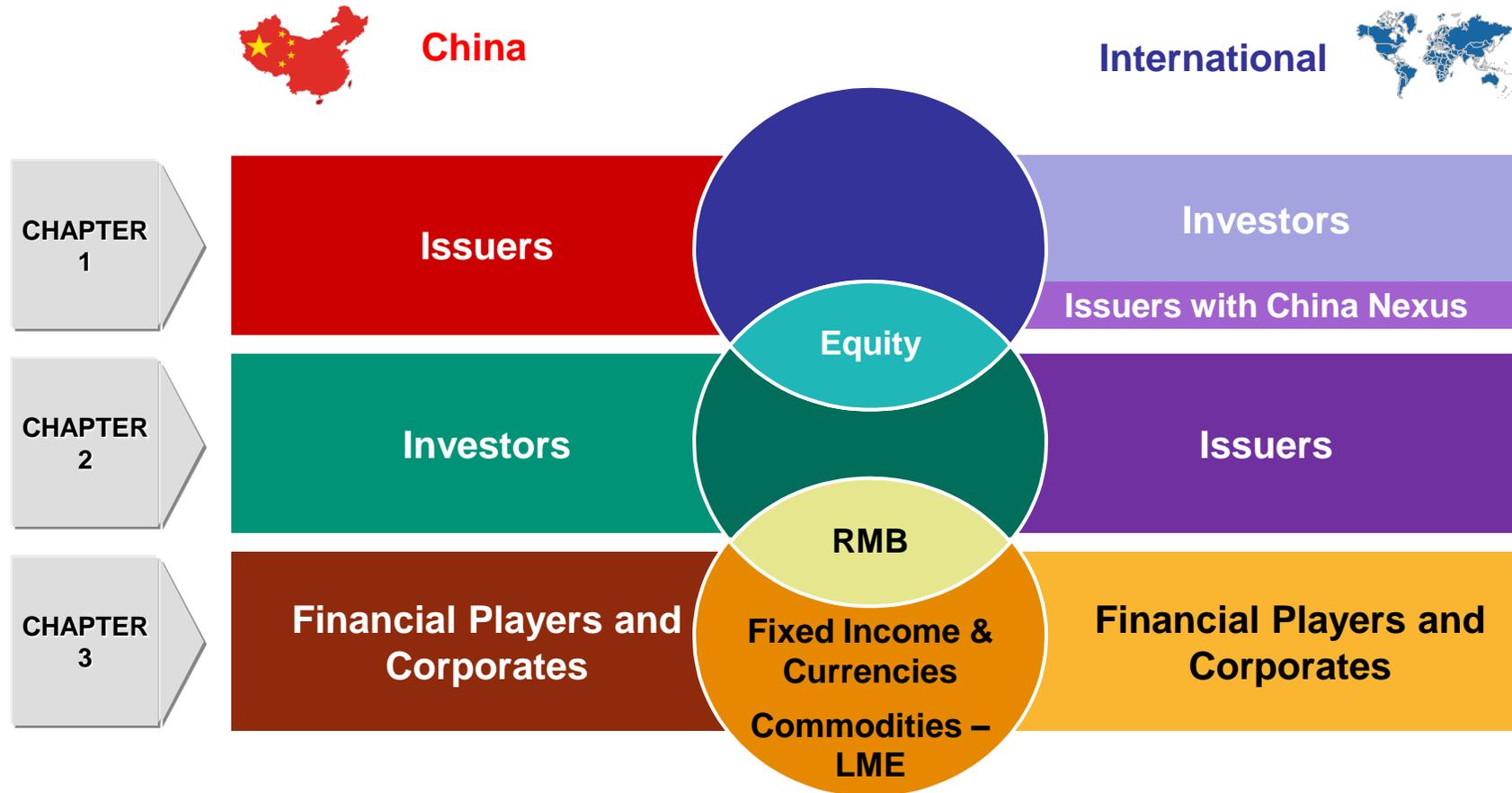
*To build HKEx into a leading global vertically-integrated multi-asset class exchange...  
...and prepare ourselves for the managed but accelerating opening of China's capital account*

## Mission

*Aim to be the Global Exchange of Choice for our China clients and our international clients seeking China exposure*

# Why Have We Succeeded?

*Because We Have Provided China with the Right Value Proposition at the Right Time*

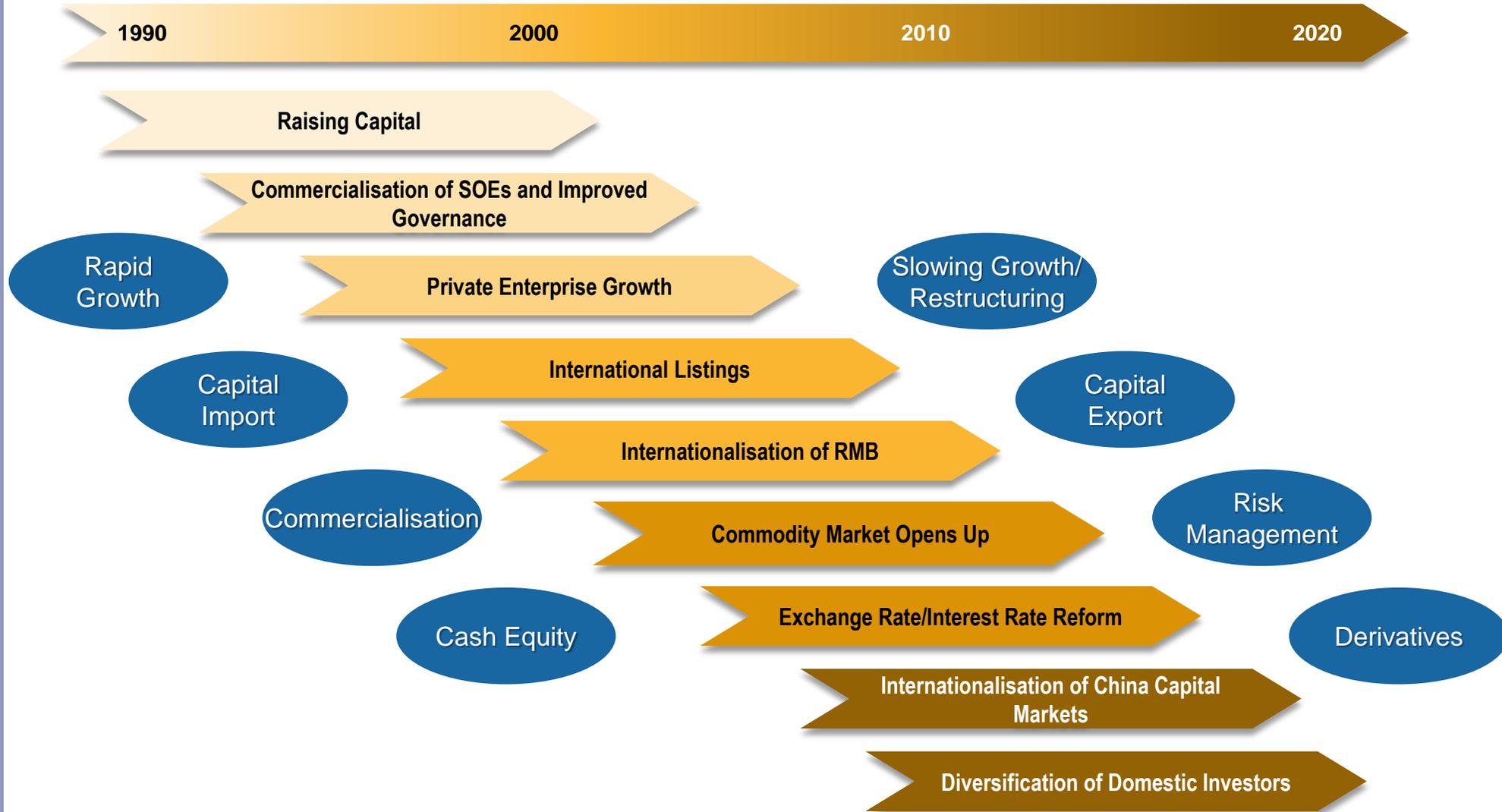


**Key Difference:**

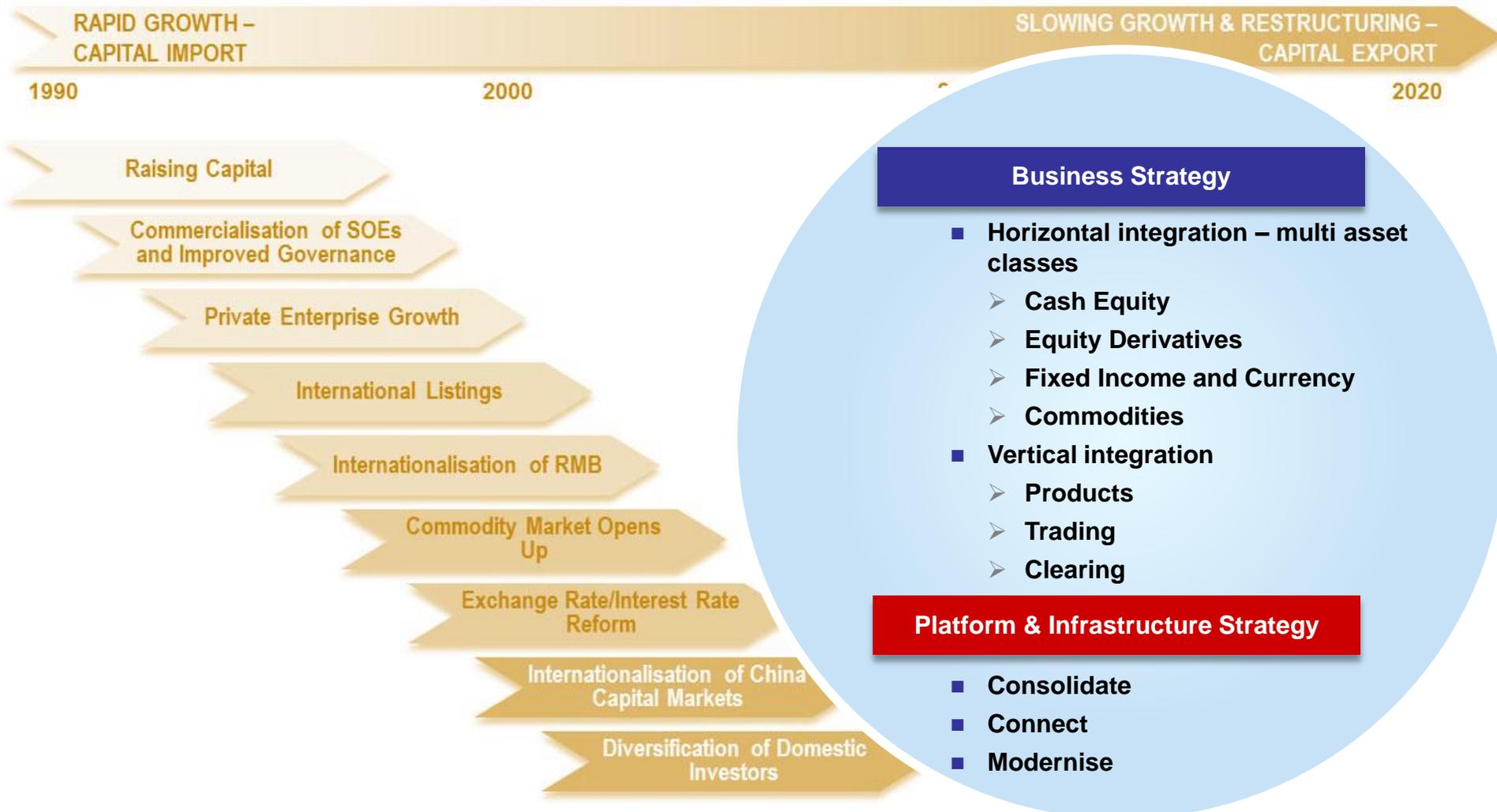
*Chapter 1 – Money inflow to China (Capital Import)*

*Chapter 2 & 3 – Money flows out of China (Capital Export)*

# Evolution of China's Growth Story



# HKEx Strategic Plan 2013-2015 – Leverage China's Capital Account Opening and Aim for Global Leadership

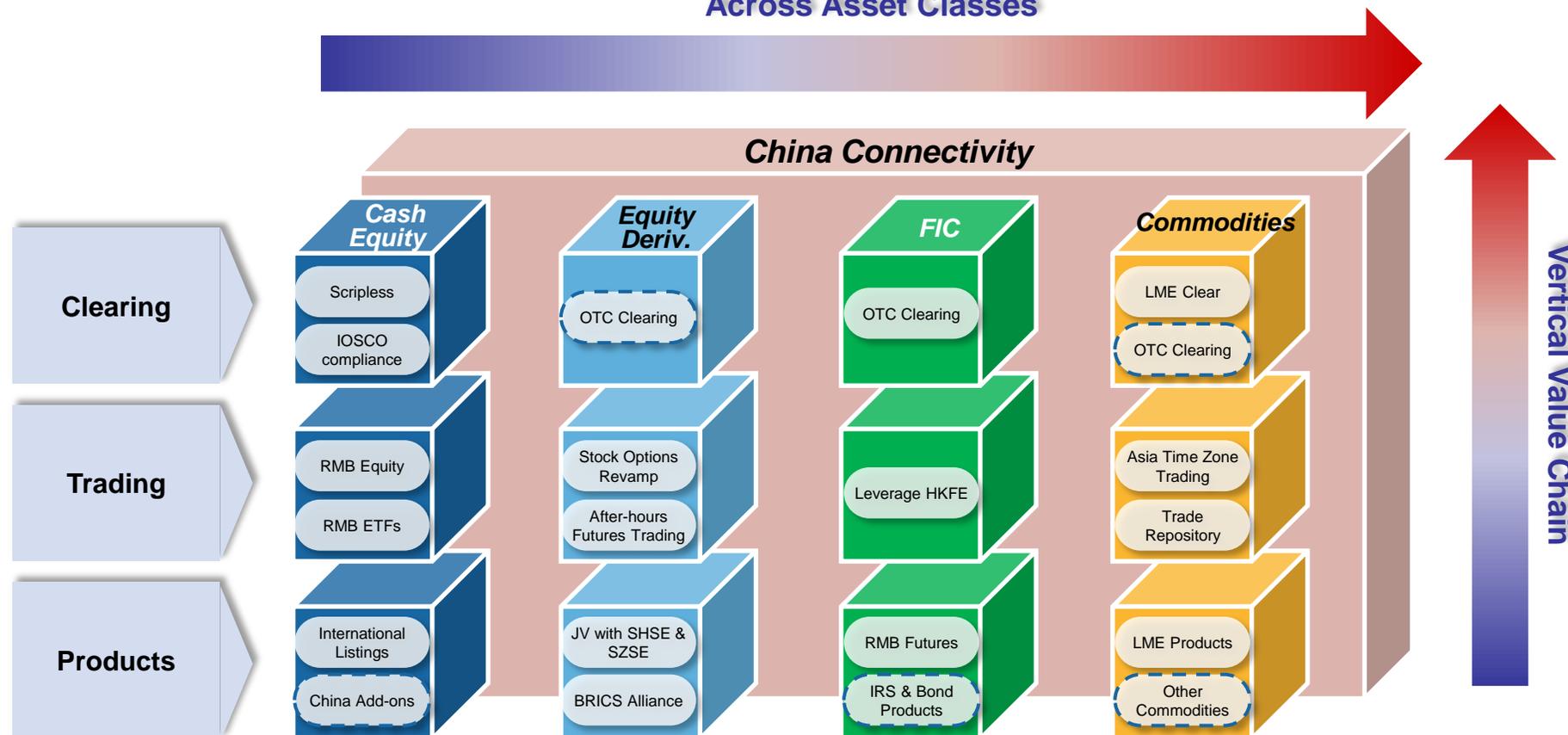


**Strategic Focus 2013-2015: Mutual Market Access with China + Global Leadership**

# HKEx Group Business Strategy = Horizontal Asset Classes + Full Vertical Integration



Across Asset Classes



# Leverage LME as a Catalyst to Facilitate an Accelerated Capital Account Opening



- Domestic investor's strong need to diversify
- Desire internationalisation

Equity  
RMB31 trillion

- Already open
- Need offshore investment products

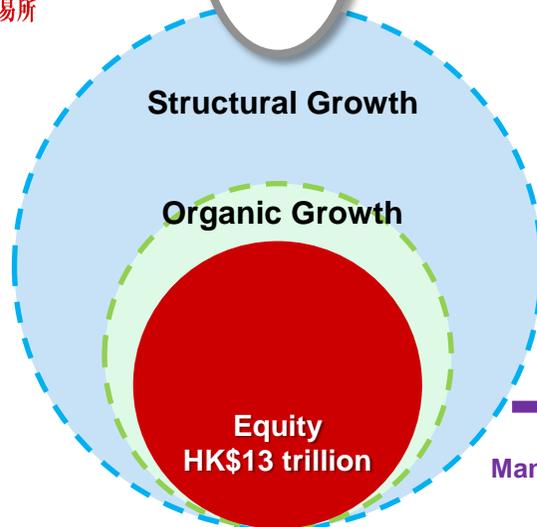
FIC  
RMB258 trillion

- Strong user demand for greater integration
- Risk management needs of the real economy
- Project China to global pricing power

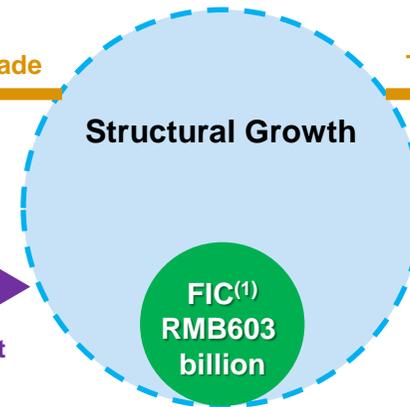
Commodities  
RMB95 trillion



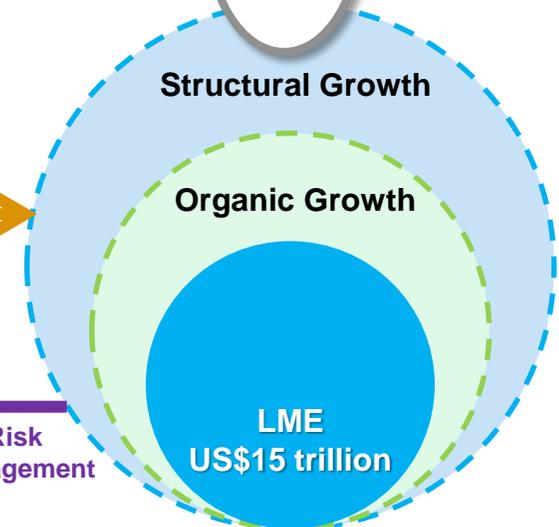
New Outflow  
of RMB



Explore the right model



Will benefit from  
natural outflow of RMB



Explore the right model

Trade

Trade

Risk Management

Risk Management

(1) All numbers refer to trading volume in 2012, except FIC HK which refers to RMB deposit in Hong Kong as of 31 Dec 2012

# Strategic Plan 2013-2015 – Platform and Infrastructure Strategy



**Platform Strategy**

**Market Specific Platforms**

**Next Generation Foundation**

**Common Platforms**

**Infrastructure Strategy**

**Consolidation**

**Access**

**Connectivity**

# Platform Strategy – Transitioning to Cross-Asset Common Platforms

Today

Future

Market Specific  
Platforms

Next Generation  
Foundation

Common Platforms



Note: Conceptual illustration only.



Existing platforms



Next Generation platforms

- Vertical silos from historical legacy
- Vendor dependent support

- “Seed” best of breed technology in certain asset classes
- Prepare for extending the platform to other asset classes

- Cross-asset class platforms
- Fewer vendors
- Horizontal deployment – synergy
- In-house support capability

Today

Future

Consolidation

Access

Connectivity

TKO Data Centre



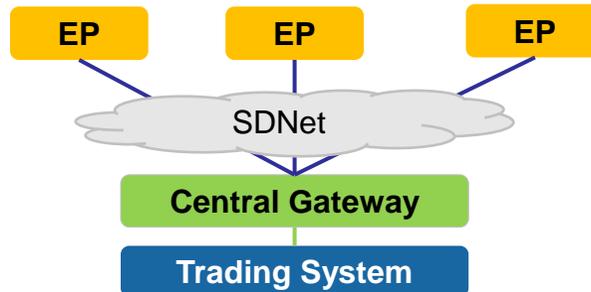
- Consolidate IT offices and multiple data centres – operational efficiency achieved
- Cash system migrated in Oct 2012
- Foundation for Next Gen platforms

Hosting Services



- Lower latency & ecosystem
- Launched in Dec 2012

Central Gateway



- Lower costs for market

Mainland Market Data Hub

- Mainland WOFE set up
- Distribution of Market Data to Mainland via data hub

LME Point of Presence in HK

- Facilitate Asian participants' access to LME

Global Networks

- Increase exposure to overseas participants
- Attract global network into our ecosystem so that we can receive increased overseas liquidity

# Conclusion on Strategic Plan 2013-2015



**Strategic Vision:**

**To build HKEx into a leading global vertically-integrated multi-asset class exchange**

**Foundation:**

**Continuing growth of HKEx's core business**

**Opportunity:**

**Managed but accelerating opening of China's capital account**

**Key Catalyst:**

**The acquisition of the LME**

***Mutual Market Access + Global Leadership***

# Agenda



**1** HKEx Group Strategic Plan 2013-2015

**2** HKEx Orion updates

# Leading Hong Kong's Next Transformation

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HKE<sub>x</sub>

Orion

TECHNOLOGY INITIATIVES

# Leading Hong Kong's Next Transformation

## Connectedness

Enhancing access & connectivity

## Community

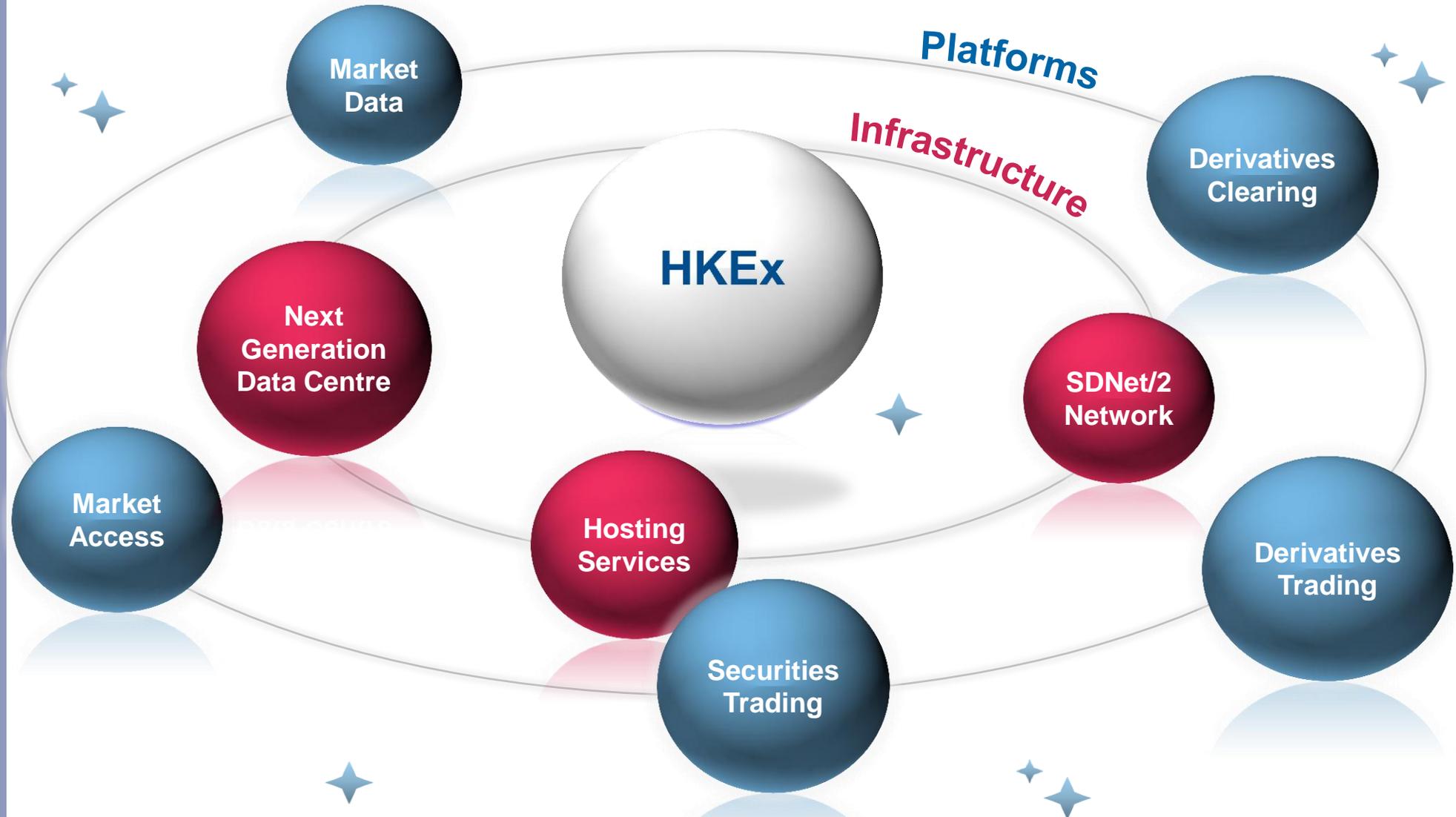
Seizing opportunities together

## Competitiveness

Staying ahead and enhancing competitiveness



# Essential Technology Investment



## Next Generation Data Centre

- ✓ State-of-the-art
- ✓ Consolidation of legacy HKEx data centres

## Hosting Services

- ✓ Low latency access to HKEx platforms
- ✓ Tier-4 standard hosted ecosystem

## SDNet/2 Network

- ✓ Higher bandwidth
- ✓ Competitive pricing

## Market Data

- ✓ Suite of market data products
- ✓ Remote distribution (e.g. Mainland)

## Market Access

- ✓ Cost reduction
- ✓ Additional functionality

## Securities Trading

- ✓ Enhancements and revision of legacy functionality
- ✓ Lower latency and higher capacity

## Derivatives Trading

- ✓ Increased capacity to support options market expansion
- ✓ Industry leading low latency trading platform

## Derivatives Clearing

- ✓ Increased performance and throughput capacity
- ✓ Faster response time to daily operational processing

## Circuit migration planned for 3 phases

- Phase 1 – AMS/3 & MDS/IIS (2700 circuits, completed Jul 2012)
- Phase 2 – HKATS/DCASS/PRS (1250 circuits, completed Mar 2013)
- Phase 3 – CCASS/3 & CCMS (900 circuits, commenced Mar 2013)
  - Participant briefing completed Feb/Mar 2013
  - Circuit application Mar 2013
  - Circuit installation Apr – mid Jun 2013
  - Market rehearsal end Jun – mid Jul 2013
  - Circuit migration (2-3 batches) end Jul – early Aug 2013

# Orion Market Data (OMD)

OMD Implementation	Status
<b>Phase 1a – OMD Securities (OMD-C)</b> <ul style="list-style-type: none"><li>• <i>Securities Standard</i></li><li>• <i>Securities Premium</i></li><li>• <i>Securities FullTick</i></li><li>• <i>OMD Index</i></li></ul>	<ul style="list-style-type: none"><li>• First batch client rollout on-boarding in progress:<ul style="list-style-type: none"><li>• Client Readiness Test till April 2013</li><li>• Market Rehearsal target for May/June 2013</li></ul></li><li>• Second batch client rollout on-boarding schedule to be announced.</li></ul>
<b>Phase 1b – Mainland Market Data Hub (MMDH)</b> <ul style="list-style-type: none"><li>• <i>Securities Standard</i></li></ul>	<ul style="list-style-type: none"><li>• Feed Enrollment up to end Mar 2013</li><li>• Testing lines to be installed by April 2013</li><li>• Client connecting to MMDH for testing from April 2013</li></ul>
<b>Phase 2 – OMD Securities (OMD-D)</b> <ul style="list-style-type: none"><li>• <i>Derivatives Standard</i></li><li>• <i>Derivatives Premium</i></li><li>• <i>Derivatives FullTick</i></li></ul>	<ul style="list-style-type: none"><li>• Feed Enrollment to commence in April 2013</li><li>• On-boarding tools &amp; canned data to be available in Q2 2013.</li></ul>

# Tentative Implementation Schedule

	2013				2014			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Phase 1a OMD Securities (OMD-C)</b>								
Client Open/Readiness Test	█							
Market Rehearsals		█						
Rollout			█					
<b>Phase 1b Mainland Market Data Hub (MMDH)</b>								
Client Open/Certification Test		█						
Market Rehearsals			█					
Rollout				█				
<b>Phase 2 OMD Derivatives (OMD-D)</b>								
Client Open/Readiness Test				█				
Market Rehearsals					█			
Rollout						█		

# Orion Central Gateway (OCG)

- OCG Software Development and Testing is in progress
- EP and BSS Vendor Readiness
  - Completed Events
    - ✓ EP Briefing Session & Publication of Interface Specification (Oct 2012)
    - ✓ Technical Briefing Session & Release of Offline OCG Simulator (Dec 2012)
  - Upcoming Events
    - EP Enrollment and submission of OCG Simulator test results (Q2 2013)
    - End-to-end Test (Q3 2013)
    - Market Rehearsals (Q4 2013)
    - Rollout (Target Q4 2013 subject to result of MR)

# Tentative Implementation Schedule

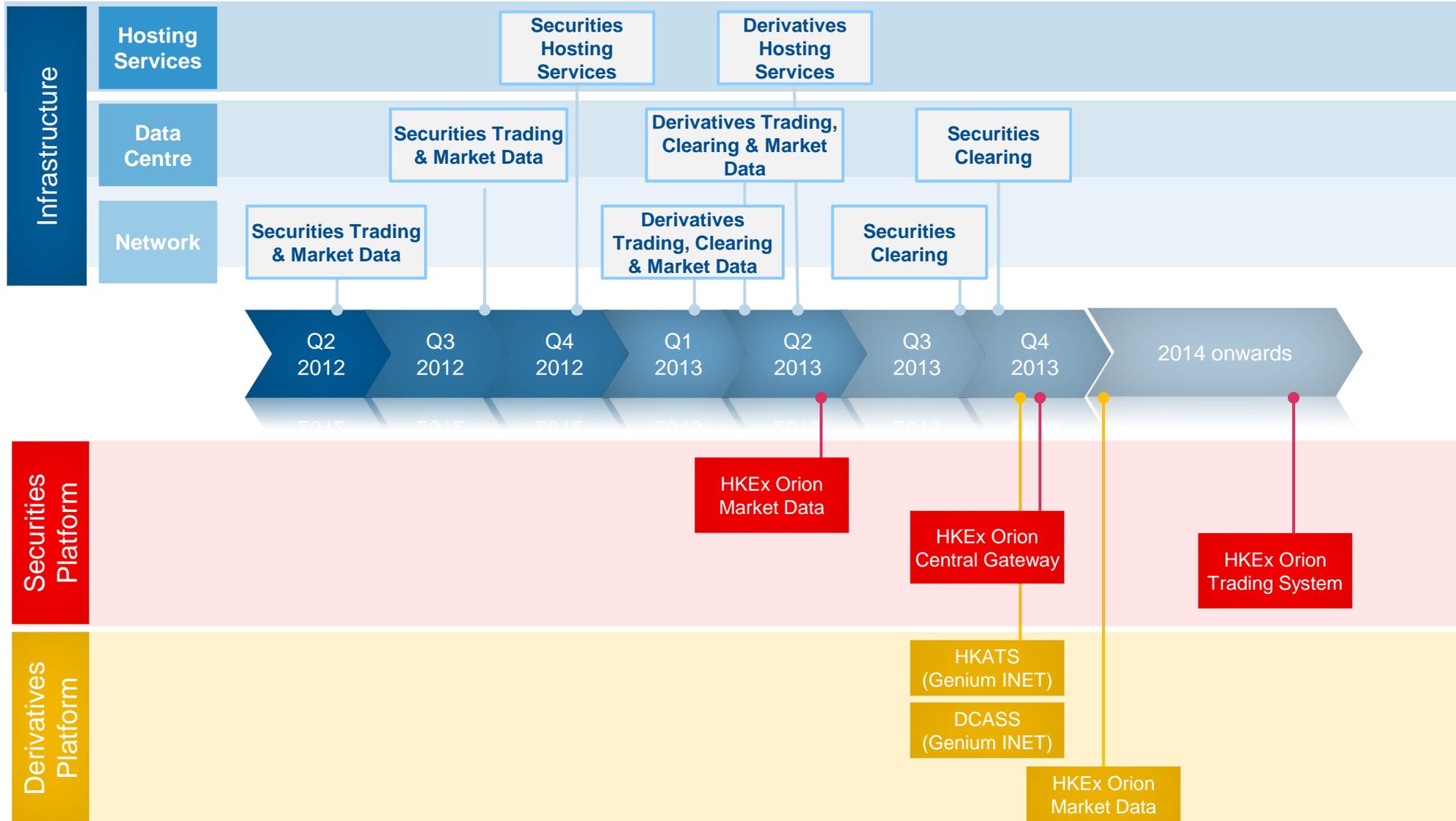
Events	Q4 2012	Q1 2013	Q2 2013	Q3 2013	Q4 2013
Distribution of Offline OCG Simulator	■				
EP Enrolment		■	■		
EP Submission of Simulator Test Results		■	■		
OCG End-to-end Test				■	
Market Rehearsals					■
Rollout					■

- Backend platform migration from OpenVMS & Windows to Linux.
- Introduction of high speed message bus for capacity increase & latency reduction.
- Largely compatible with current version in terms of OAPI and frontend GUI.
- OAPI development environment opened up for Participant development since late March 2013.
- OAPI program certification to be completed prior to Market Rehearsal.
- Hardware procurement (e.g. Linux Network Gateways, SDNet/2 circuits, etc.), where appropriate, and software installation should be completed before Market Rehearsal.

# Tentative Implementation Schedule

HKATS and DCASS Genium INET Upgrade	Q3 2012	Q4 2012	Q1 2013	Q2 2013	Q3 2013	Q4 2013	..	Early 2014
Briefing Sessions	■							
Indication in number of connections to Central Gateway and/or Network Gateway by participants		■						
Enrollment for Central Gateway and Network Gateway connections			■	■				
Equipment procurement & arranging SDNet/2 circuits			■	■				
Release of OAPI Technical Specification			■	■				
OAPI Development			■	■	■			
End-to-end Open Test			■	■	■			
API Certification Test			■	■	■	■		
* Market Rehearsals					■	■		
Rollout of Genium platform						■		
<b>Rollout of HKEx Orion Market Data platform (OMD) for Derivatives</b>								■

# Implementation Schedule



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**Thank You**