



# TRANSFORMATION OF CAPITAL MARKETS: NEW IMAGE OF STOCK EXCHANGE

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Global Challenges Summit 2018

Alina Aldamergen, CEO of KASE

# 2018

KASE provides  
comprehensive  
range of services

- LISTING
- MEMBERSHIP
- BOOKRUNNING
- PRE-TRADING
- TRADING
- POST-TRADING
- TECHNOLOGY SERVICES
- INFORMATION PRODUCTS



**57**

MEMBERS  
(BROKERS-DEALERS)



**120+**

EQUITIES  
IN TRADING LIST

**150+**  
ISSUERS

**5**

CURRENCY PAIRS



**110 000+**

ACCOUNTS OF  
RETAIL INVESTORS



**25**

YEARS IN THE  
CAPITAL MARKET

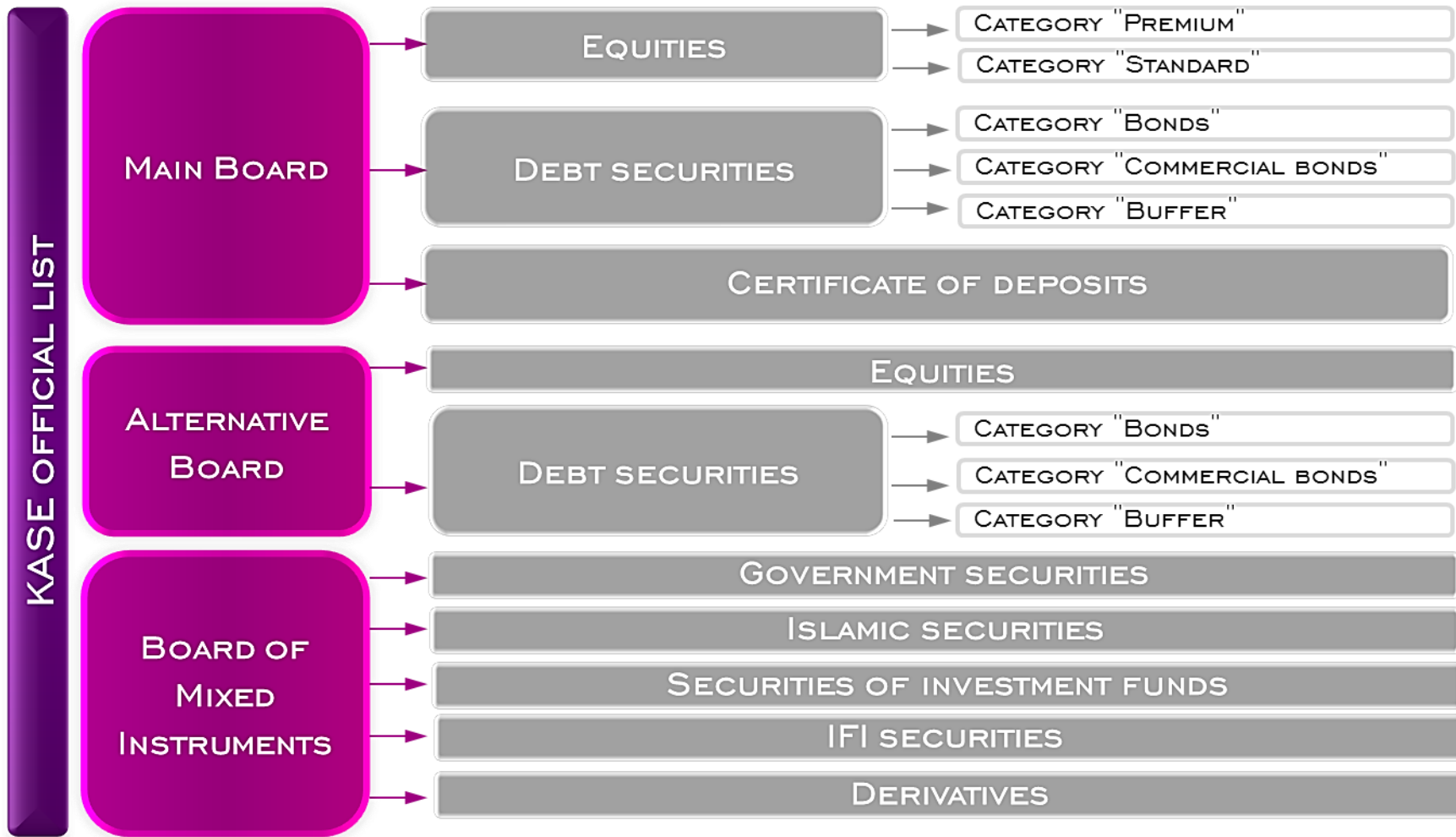


**260+**

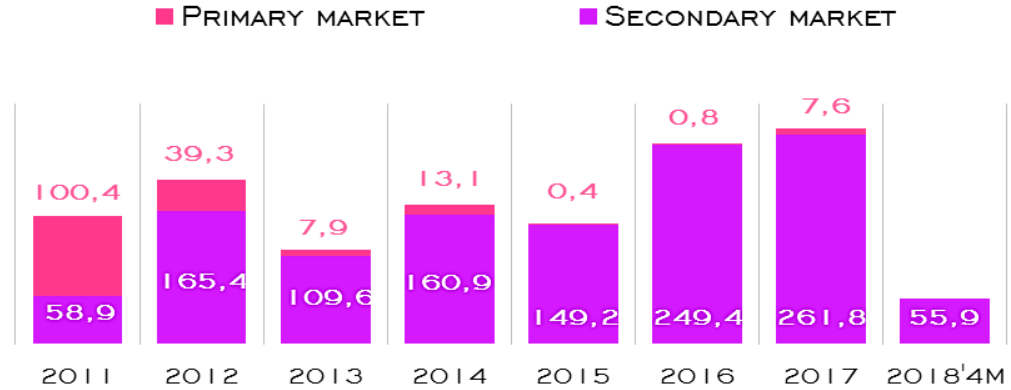
CORPORATE BONDS  
IN TRADING LIST



# KASE Listing Structure



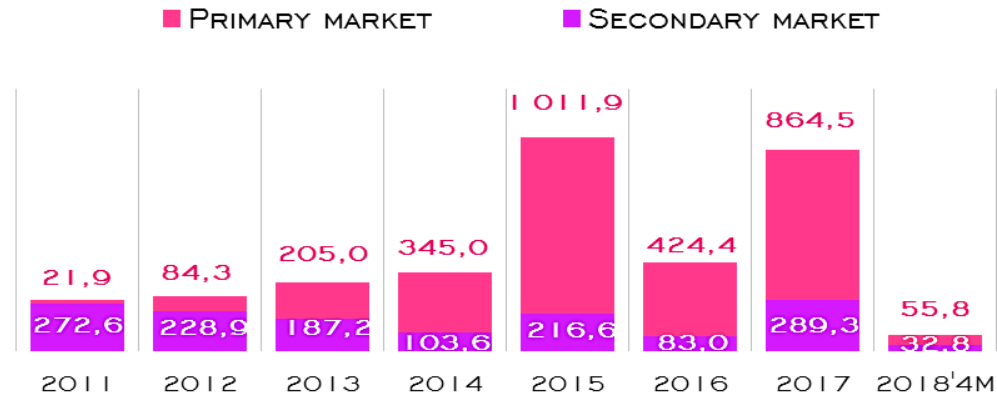
### Equity Trading Volumes, KZT bn



## Our Mission

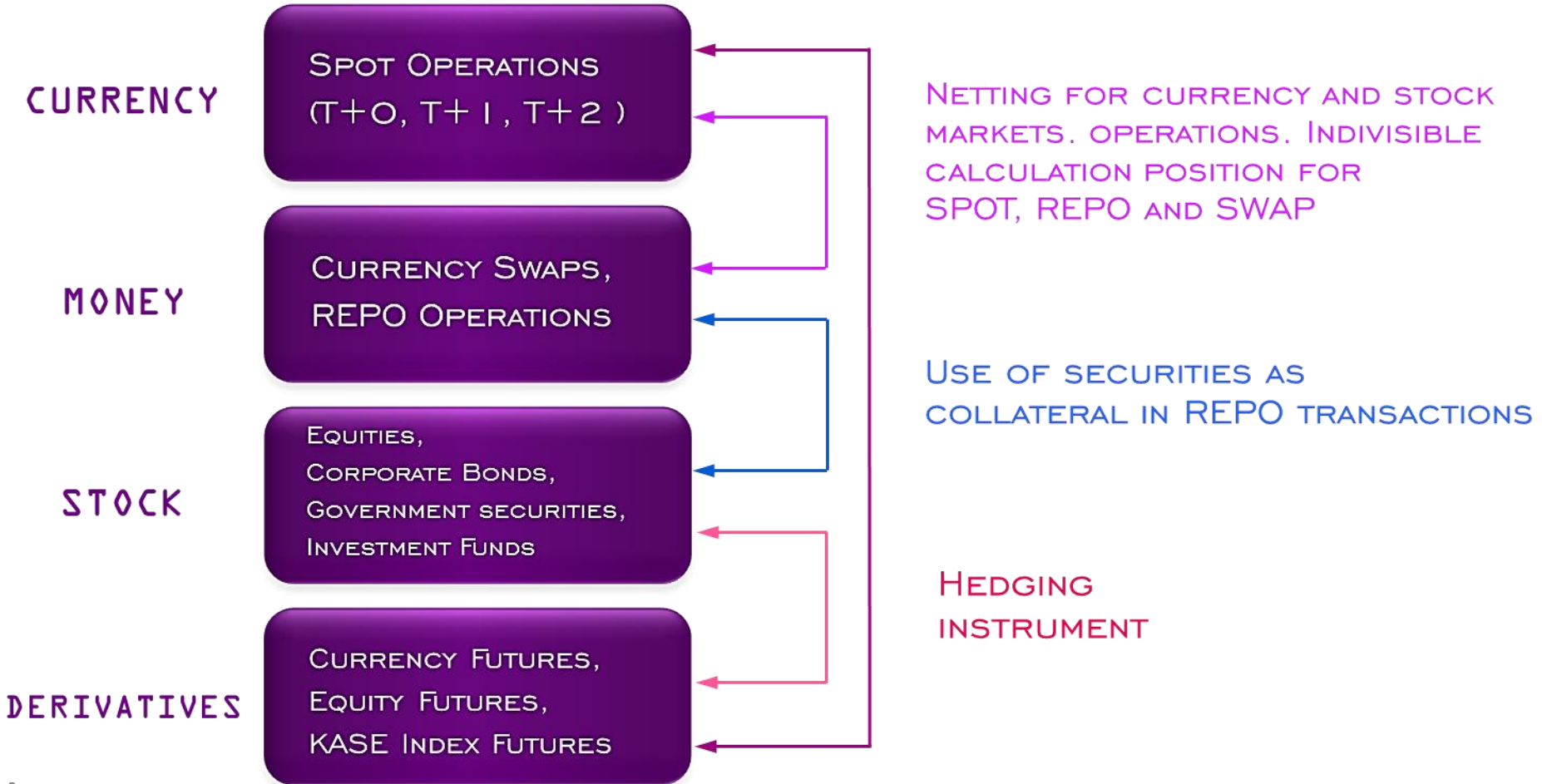
- TO PROMOTE SUSTAINABLE ECONOMIC DEVELOPMENT OF KAZAKHSTAN PROVIDING OF TECHNOLOGICAL INFRASTRUCTURE WHICH ALLOWS PUBLIC AND PRIVATE SECTOR TO RAISE FINANCING


### Corporate Bonds Trading Volumes, KZT bn



- TO PROVIDE A SECURE, STABLE AND TRANSPARENT INVESTMENT ENVIRONMENT FOR LOCAL AND FOREIGN INVESTORS

# KASE Integrated Market





Advantages of integrated markets that differ in terms of traded instruments, principles of trading and settlement:

- BROAD CHOICE OF ASSETS FOR TRADING
- CONCENTRATION OF LIQUIDITY ON ONE TRADING PLATFORM
- COMPREHENSIVE RISK MANAGEMENT SYSTEMS FOR ALL MARKETS
- POST-TRADE TRANSPARENCY

# Planning and Implementation of Digitalization Projects in Kazakhstani Financial Market

## NATIONAL BANK OF KAZAKHSTAN

- INVEST ONLINE APPLICATION, SPECIALLY DEVELOPED PRODUCT (INCLUDING MOBILE APPLICATION)
- PROMPT INVESTING IN SECURITIES ONLINE
- USES BLOCKCHAIN TECHNOLOGY



## FIRST CREDIT BUREAU

- BIOMETRIC PHOTOBASE OF BORROWERS
- FCB BEHAVIOR MACHINE LEARNING SCORE

## ALTYN BANK

- DIGITAL BANK ALTYN-I
- REMOTE CLIENTS' VERIFICATION

## MOBILE APPLICATIONS

- IQUIK/IQUIK-HD AND TRADERNET DEVELOPED BY **FREEDOM FINANCE** AND MOBILE APPLICATION DEVELOPED BY **TSESNA CAPITAL** (QUOTES, GRAPHS, ORDER BOOK, PORTFOLIO, NOTIFICATIONS)
- DEVELOPING OF KASE MOBILE APPLICATION (WITH POSSIBILITY OF TRADING)





FUNCTIONS	TITLE	DESCRIPTION
<b>TRADING SYSTEM</b>	NEXT FOR CURRENCY MARKET KASE AST FOR STOCK MARKET	PERFORMANCE (NEXT): 10 (10 000) REQUESTS PER SECOND 300 000 (1 000 000) TRADING ACCOUNT 300 000 (1 000 000) APPLICATIONS PER SESSION
<b>THE FINANCIAL INFORMATION EXCHANGE (FIX) PROTOCOL</b>	FIX TRANSACTIONAL FIX MARKET DATA	2 VENDORS (REUTERS, BLOOMBERG) 2 PARTNERS (WIENER BÖRSE AG, CHINA INVESTMENT INFORMATION SERVICES LIMITED (CIIS))
<b>POST-TRADE PROCEDURES</b>	KASE BACK OFFICE SYSTEM	ANALYSIS AND STORAGE OF DATA OBTAINED FROM THE TRADING SYSTEM, GENERATION OF REPORTS, AUTOMATIC DATA TRANSFER TO THE EXCHANGE WEBSITE
<b>DATA EXCHANGE</b>	ETRANSFER.KZ FINANCIAL AUTOMATED SYSTEM OF TRANSPORT INFORMATION "FASTI" TERMINAL BANKSGATE IS2IN SWIFT	SYSTEMS DESIGNED FOR THE TRANSFER OF ELECTRONIC FILES-DOCUMENTS BETWEEN ITS PARTICIPANTS USING AUTHENTICATION MECHANISMS, TRAFFIC ENCRYPTION AND ELECTRONIC DIGITAL SIGNATURE
<b>MAINTENANCE SERVICE</b>	BPMONLINE SERVICE DESK REDMINE	SOFTWARE FOR COMPLEX AUTOMATION OF SERVICE PROCESSES AND TASKS AND WEB APPLICATION FOR PROJECT AND TASK MANAGEMENT
<b>CLEARING</b>	CLEARING SYSTEM	SYSTEM DESIGNED TO CARRY OUT CLEARING ACTIVITIES IN THE ORGANIZATION OF NETTING AND CALCULATION OF NET OBLIGATIONS ON THE RESULTS OF TRADING
<b>WEB SITE</b>	<a href="http://WWW.KASE.KZ">WWW.KASE.KZ</a> <a href="http://STARTUP.KASE.KZ">STARTUP.KASE.KZ</a>	PYTHON PROGRAMMING LANGUAGE CACHE SYSTEM WITH REDIS LANDING PAGES TARGETED FOR MAJOR USER GROUPS TRADING GRAPHS FOR HISTORICAL DATA

# VISION

what will  
influence  
industry  
in 2020



A CRIPPLING GLOBAL CYBER ATTACK



NEW REGULATION RESTRICTING ABILITY TO  
GENERATE PROFITABLE BUSINESSES



LOSS OF MARKET SHARE TO NON-TRADITIONAL PLAYERS



A LARGE MACRO IDIOSYNCRATIC RISK THAT HURTS  
GLOBAL ECONOMIES



HIGH INFLATION DUE TO CENTRAL BANK POLICIES

ACCORDING TO EY REPORT "CAPITAL MARKETS: INNOVATION AND THE FINTECH LANDSCAPE", FOR CAPITAL MARKETS COMPANIES **CURRENT INDUSTRY ENVIRONMENT** BRINGS TWO ISSUES INTO SHARP FOCUS:

□ **STRONGER** □

1. HOW TO INCREASE REVENUES AND MARKET SHARE FROM THE AVAILABLE UNIVERSE OF CURRENT AND FUTURE CLIENTS
2. HOW TO INNOVATE IN PRODUCTS AND SERVICES TO DELIVER MORE VALUE TO UNDERSERVED CLIENT OR MARKET SEGMENTS

## POST-TRADE DIGITIZATION

CREATING ROBUST  
OPERATIONS:

- REGTECH
- POST-TRADE
- TECHNOLOGY
- COMPLIANCE  
MANAGEMENT



## AI & ANALYTICS

MANAGE MYRIAD  
SOURCES OF DATA:

- MACHINE LEARNING
- PREDICTIVE ANALYTICS
- BIG DATA



## CORE MARKET INFRASTRUCTURE

TECHNOLOGY CHANGING  
CORE OF BUSINESS MODEL:

- CROWD FUNDING  
PLATFORMS
- START-UP EXCHANGE  
VENUES
- BOND ISSUANCE PLATFORMS  
FOR START-UPS AND SMES
- PRIVATE LISTING  
PLATFORMS FOR SMES
- INITIAL COIN OFFERING  
PLATFORMS



## ALTERNATIVE FUNDING PLATFORMS

MANAGE MYRIAD  
SOURCES OF DATA:

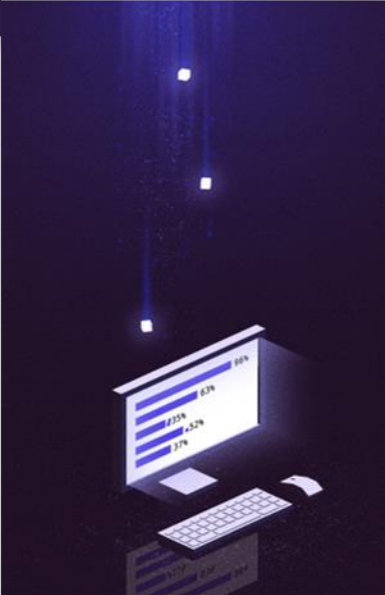
- EQUITY AND DEBT  
CAPITAL FORMATION
- P2P, B2B, B2C  
LENDING



## INVESTMENT TECHNOLOGY

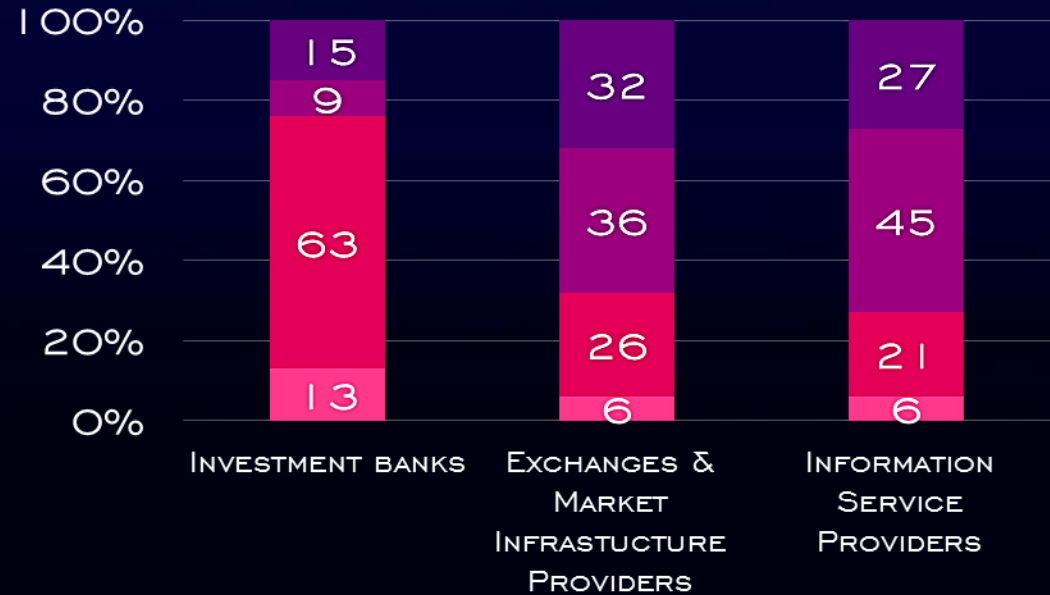
HELP TO SEARCH  
INVESTMENT ASSETS:

- INDEX PRODUCTS
- ROBO ADVISORY
- ALGORITHMIC AND  
QUANT TRADING  
SOLUTIONS



## Proportion of fintech engagement (%)

- STRATEGIC PARTNERSHIPS
- M&A
- VC INVESTMENT
- INCUBATORS / ACCELERATORS



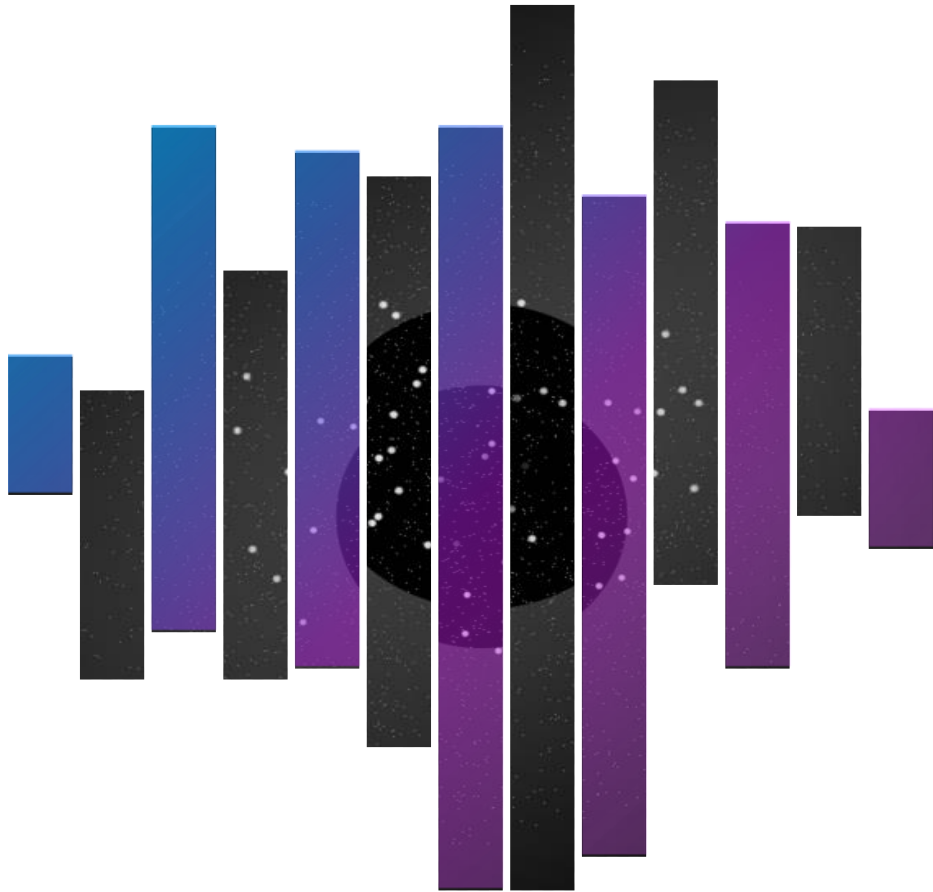
Banks and exchanges use different engagement models

NOTES: BASED ON ANALYTICS FROM 35 BANKS, 15 EXCHANGES AND MARKET INFRASTRUCTURE PROVIDERS, 15 ASSET MANAGERS AND 12 INFORMATION SERVICE PROVIDERS IN THE PERIOD FROM 2010 TO 2017  
 SOURCE: FINTECH CONTROL TOWER, THE BOSTON CONSULTING GROUP

# Blockchain Technology at Stock Exchanges

	STOCK EXCHANGE	CASE
ACCESS TO CAPITAL	LONDON STOCK EXCHANGE	COOPERATION WITH IBM TO DIGITALLY ISSUE PRIVATE SHARES OF ITALIAN SMES AND DIGITIZE SHAREHOLDING STRUCTURES
	NASDAQ	LINQ—A PLATFORM THAT ALLOWS PRIVATE COMPANIES TO SIMPLIFY SHARE MANAGEMENT AND POWERS CAPITALIZATION TABLES
	STOCK EXCHANGE OF HONG KONG	PLANS TO LAUNCH A BLOCKCHAIN-POWERED PRIVATE MARKET IN 2018, AIMED AT HELPING EARLY-STAGE AND SMALLER FIRMS OBTAIN FINANCING
	KOREA EXCHANGE	LAUNCHED KOREA STARTUP MARKET IN NOVEMBER 2016 WITH BLOCKCHAIN TECHNOLOGY TO ENABLE EQUITY SHARES OF START-UP COMPANIES TO BE TRADED IN THE OPEN MARKET
TRADE EXECUTION	CME GROUP	PROVIDES A “FAST, COST-EFFECTIVE, AND CRYPTOGRAPHICALLY SECURE METHOD” OF BUYING, HOLDING, AND TRADING ROYAL MINT GOLD
	INTERNATIONAL EXCHANGE	MINORITY INVESTMENTS IN DIGITAL CURRENCY EXCHANGE COINBASE
	SINGAPORE EXCHANGE LIMITED	EXPLORING MAKING TRADING AND SETTLEMENT OF XED-INCOME TRADING MORE EFFICIENT WITH BLOCKCHAIN
	SIX SWISS EXCHANGE	COOPERATION WITH NASDAQ PROVIDING DLT TO SIX FOR A MINIMUM VIABLE PRODUCT FOR ITS OTC STRUCTURED PRODUCTS BUSINESS
	CBOE GLOBAL MARKETS/CME GROUP	LAUNCHED BITCOIN FUTURES CONTRACTS IN DECEMBER 2017
CLEARING AND SETTLEMENT	AUSTRALIAN SECURITIES EXCHANGE	USING DLT TO RECORD SHAREHOLDINGS AND MANAGE THE CLEARING AND SETTLEMENT OF EQUITY TRANSACTIONS IN AUSTRALIA
	EURONEXT	LIQUIDSHARE FOR SMES IMPROVING THE TRANSPARENCY, SPEED, AND SECURITY OF POST-TRADE OPERATIONS
	DEUTSCHE BÖRSE AG	PROTOTYPE FOR THE SETTLEMENT OF SECURITIES IN DELIVERY-VS.-PAYMENT MODE FOR CENTRALLY ISSUED DIGITAL COINS OR DIGITAL SECURITIES
	EUROCLEAR	PARTNERSHIP WITH ITBIT TO CREATE BANKCHAIN, A DISTRIBUTED LEDGER SETTLEMENT SERVICE FOR THE LONDON BULLION MARKET
	TOKYO STOCK EXCHANGE	COOPERATION WITH IBM TESTING A TRADE CONFIRMATION PROTOTYPE FOR TRADING AND SETTLEMENT IN LOW LIQUIDITY MARKETS

SOURCE: WFE AND MCKINSEY & COMPANY'S REPORT. FINTECH DECODED, MARCH 2018



Fintechs are altering traditional access to capital models in several ways:

- PROVIDING CROWDFUNDING PLATFORMS
- DEVELOPING PLATFORMS THAT CREATE NEW CONNECTIONS AMONG ISSUERS AND INVESTORS
- DEVELOPING NEW TECHNOLOGIES FOR DIRECT ISSUANCE OF EQUITY AND BONDS

**KASE STARTUP** – PLATFORM, THE MAIN PURPOSE OF WHICH IS TO SET UP COMMUNICATIONS BETWEEN START-UP COMPANIES AND INVESTORS.



## START - UP COMPANIES NEED TO MEET ONE OF THE FOLLOWING CRITERIAS:

- COMPANY REGISTRATION WITH ONE OF KASE'S PARTNERS (BUSINESS INCUBATOR, INVESTMENT FUND, CONSULTING OR CROWD FUNDING COMPANY);
- HAVING A STRATEGIC INVESTOR WITH A SHARE IN THE COMPANY'S CAPITAL OF MORE THAN 30 %;
- ONE OF INVESTORS IS AN INVESTMENT FUND, WHICH BECOME AN INVESTOR OF STARTUP COMPANY NOT EARLIER THAN ONE YEAR BEFORE THE APPLICATION TO KASE IS MADE;
- COMPANY SHOULD HAVE SALES FOR THE LINE OF BUSINESS BEING FINANCED.

<https://startup.kase.kz/>



25 жыл  
лет  
years

**KASE**

Қазақстан қор биржасы  
Казахстанская фондовая биржа  
Kazakhstan Stock Exchange



KAZAKHSTAN.STOCK.EXCHANGE



KASE\_KZ

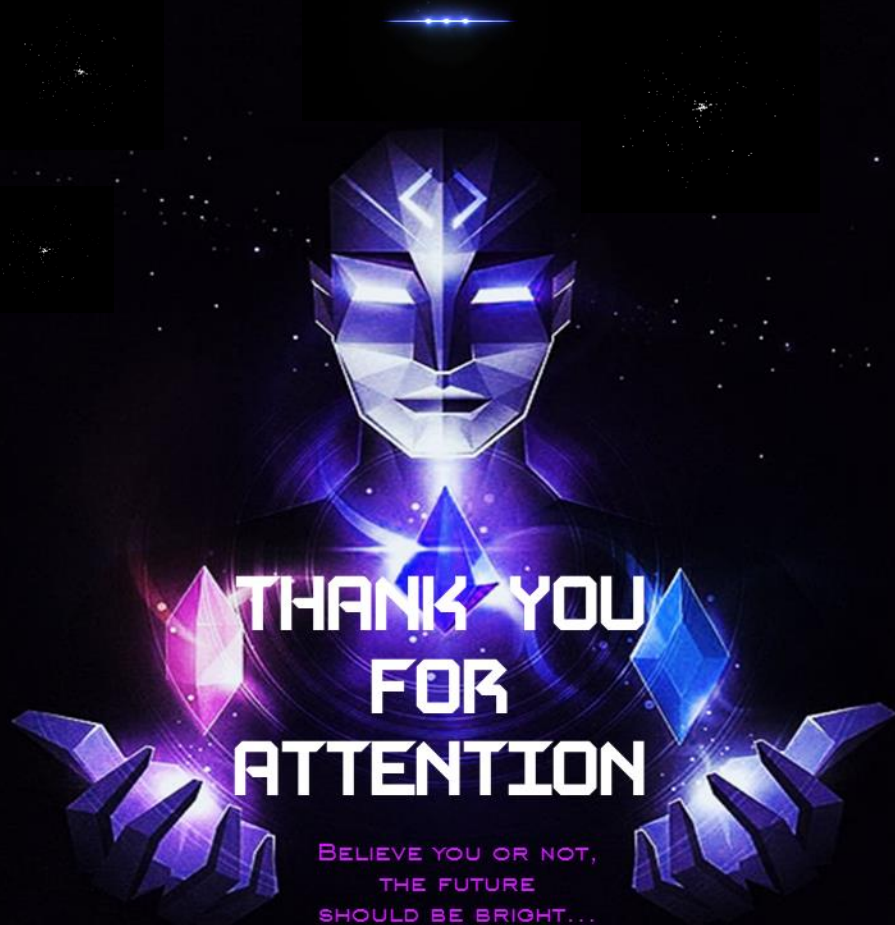


KAZAKHSTAN STOCK EXCHANGE



KAZAKHSTAN STOCK EXCHANGE KASE

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**THANK YOU  
FOR  
ATTENTION**

BELIEVE YOU OR NOT,  
THE FUTURE  
SHOULD BE BRIGHT...