



TECHNOLOGY & POST-TRADING: TRANSFORMATION OF A CENTRAL SECURITIES DEPOSITORY

COMCEC 1st CAPITAL MARKETS REGULATORS FORUM

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CEO, Central Securities Depository of TURKEY**

AGENDA

- Central Registry Agency (MKK)
- Dematerialized System Software
- Central Securities Depository Services
- MKK Financial Accounts Center
- MKK & Capital Market Statistics
- MKK Investor Services
- MKK Projects
- MKK 2023 : New Depository & Value Added Services

TURKISH CAPITAL MARKETS

Capital Markets Board

Istanbul Stock
Exchange

Turkish Derivatives
Exchange

Istanbul Gold
Exchange

ISE Settlement
and Custody
Bank Inc.
(Takasbank)

MKK
MERKEZİ KAYIT KURULUŞU

The Association of
Capital Market
Intermediary
Institutions

MKK

- Central Securities Depository of Turkish Capital Markets
- Established under the provisions of the Capital Market Law
- A private for-profit company
- Manages Investors Protection Fund
- Subsidiaries:
 - Sarajevo Stock Exchange
 - Capital Markets Licensing and Training Company
 - Commodity Exchange

DEMATERIALIZED SYSTEM SOFTWARE

- In-house developed product, e-signature usage
- Web Based – Java Application – Remote Access
- Secure messaging infrastructure MOM (Message-Oriented-Middleware)
- ISO 27001 Information Security Certification
- Award of merit at the 7th Technology Conference by
 - TUBITAK (Scientific and Technological Research Council of Turkey)
 - TTGV (Technology Development Foundation of Turkey)
 - TUSIAD (Turkish Industrialists' and Businessmen's Association)
- TUBITAK R&D support



DEMATERIALIZED SYSTEM SERVICES



Companies which issue Stocks, Private Sector Debt Instruments (Bonds & Bills), Mutual Funds, Exchange Traded Funds, Bank Bills, Warrants, Asset Covered Securities, Asset Backed Securities, Certificates

ISSUER COMPANY 530

ELECTRONIC SIGNATURE & PKI INFRASTRUCTURE

WEB APPLICATION

ONLINE INTEGRATION

BANK & INTERMEDIARY INSTITUTION 140

TÜBİTAK-TTGV-TÜSİAD



MKK
Central Dematerialized System
MKS
MERKEZİ KAYIT SİSTEMİ



ISO 27001 Information Security Certification

DEMATERIALIZATION

CENTRAL SECURITIES DEPOSITORY

ACCOUNT OPENING

FOP AND DVP TRANSACTIONS

ON AND OFF-EXCHANGE SETTLEMENT OPERATIONS

CORPORATE ACTIONS ISSUER OPERATIONS

INVESTOR SERVICES

LEGAL OPERATIONS

ELECTRONIC FUND PLATFORM

SECURITIES BORROWING AND LENDING PLATFORM

REPORTING

OTHER OPERATIONS

DEMATERIALIZATION PROCESS

SECURITY TYPE	DATE	DEMATERIALIZATION RATE(%)
Stocks	2005-2007	%99,99
Mutual Funds	2005-2006	%99,99
Exchange Traded Funds	2005	%100
Private Sector Bonds	2006	%100
Private Sector Commercial Papers and Bank Bills	2009	%100
Warrants	2010	%100
Asset Covered Securities / Asset Backed Securities	2011	% 100
Government Bonds & T-Bills	2012	% 100
Certificates	2012	% 100

37 million security certificates have been dematerialized.

ELECTRONIC ACCOUNT OPENING

APPLICATION FOR ACCOUNT OPENING

- All accounts opened in Turkish Financial Markets
- ID and contact information of every Investor in Turkey (phone numbers, e-mail and mail addresses of investors)

Legal Entity



TAX ID NO

ISSUER COMPANY

INVESTORS

T.R. ID NO

INTERMEDIARY INSTITUTION/BANK

Real Person



REGISTRY NO & PASSWORD

INTEGRATION

MINISTRY OF FINANCE

TAX ID NO

MKK Central Dematerialized System

T.R. ID NO

MINISTRY OF INTERNAL AFFAIRS

e-Government Integration

MKK MEMBER AND ACCOUNT STRUCTURE



INVESTOR ACCOUNTS

ISSUER COMPANY

INTERMEDIARY INSTITUTION/BANK

INVESTOR ACCOUNTS



Investors



Accounts

FIGURES (September 2012)

**Market Value
of Securities
under
Safekeeping**

**398 BILLION
US \$**

**Number of
Investors**

**Number of
Investors
with a
Balance**

21.255.450

3.733.354

**Number of
Accounts**

**Number of
Accounts
with a Balance**

39.231.628

4.480.834

Foreign
Ownership:
% 64.04

CUSTODY-SECURITIES(September 2012)

Free Float:
102 bil. US \$
Non Free Float:
174 bil. US \$

STOCKS

- 1.085.599 INVESTORS
- 276 BILLION US \$

GOVERNMENT DEBT SECURITIES

- 35.961 INVESTORS
- 89 BILLION US \$

MUTUAL FUNDS

- 2.927.036 INVESTORS
- 17 BILLION US \$

CORPORATE BONDS

- 200.366 INVESTORS
- 14 BILLION US \$

EXCHANGE TRADED FUNDS

- 3.982 INVESTORS
- 211 MILLION US \$

WARRANTS

- 1.564 INVESTORS
- 3.3 MILLION US \$

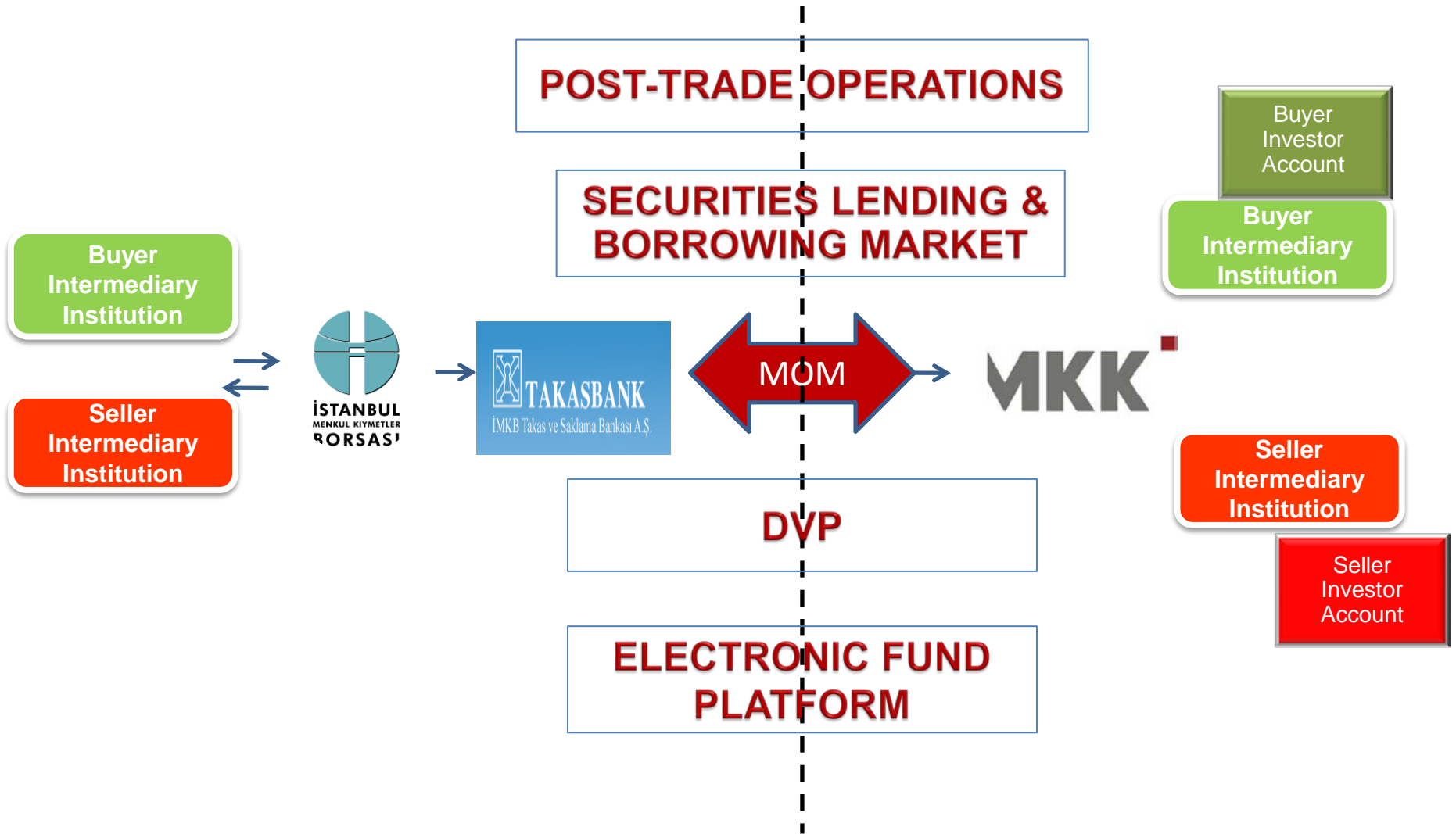
ASSET BACKED SECURITIES

- 65 INVESTORS
- 517 MILLION US \$

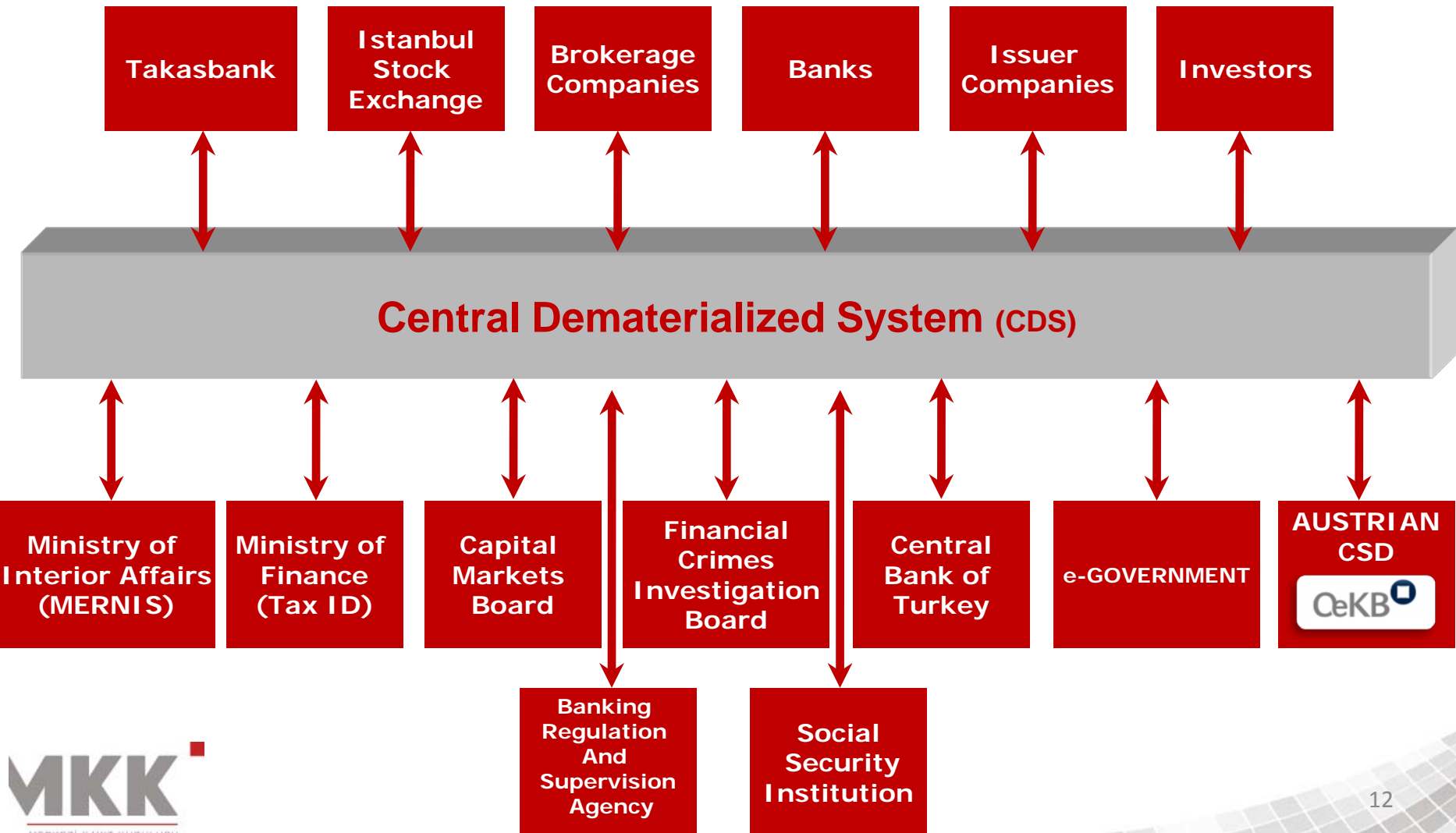
CERTIFICATES

- 13 INVESTORS
- 56.000 US \$

MKK-TAKASBANK INTEGRATION



INTERACTION WITH MAJOR PLAYERS



MKK in NUMBERS (in 2011)

Messages
13.631.081

Instructions
278.266.430

Transactions
283.189.359

Notifications
401.928.734

Total Transaction Volume

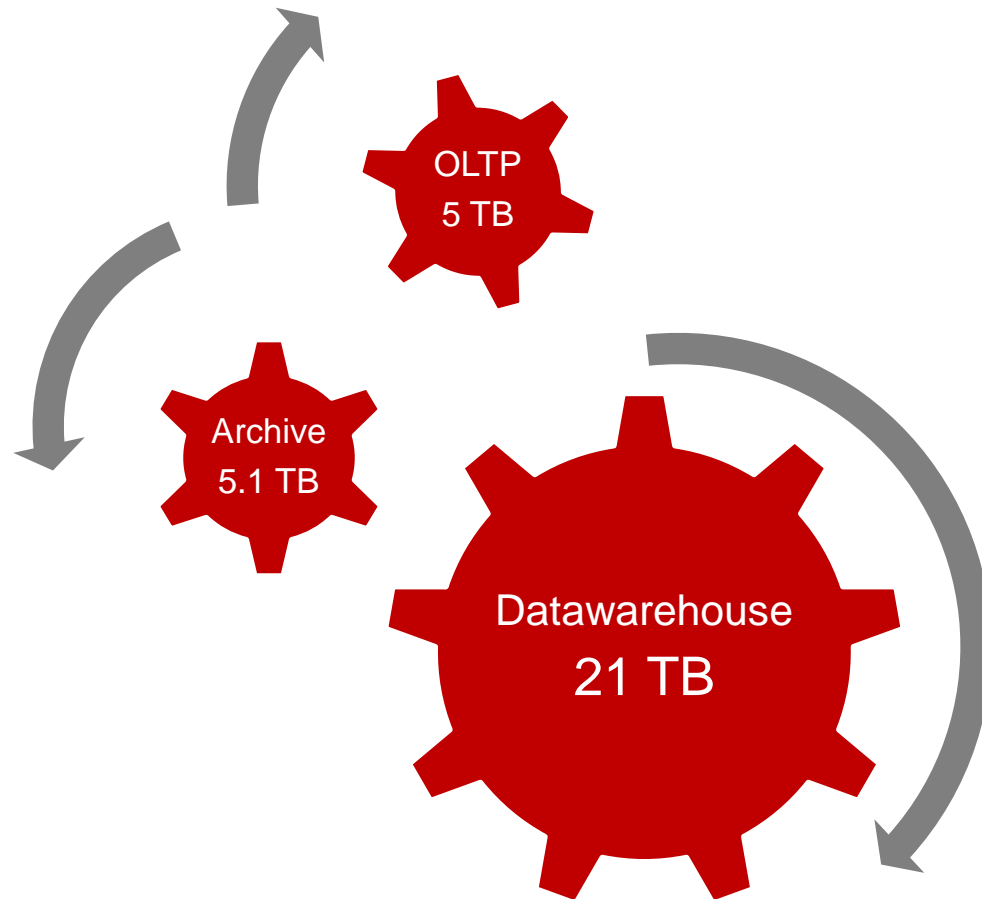
2.38 trillion US \$

Max. Transaction Volume in a day

43.4 billion US \$

DATA in NUMBERS (2011)

Max 1.455 transactions in OLTP DB per second



IFC PROJECT & MKK

- Action No: 49 - “**Electronic General Assembly**”
(Responsible Institution)
- Action No: 48 - “**Electronic Fund Trading Platform**”
(Joint Responsibility with Takasbank)
- Cooperating institution for **22 Actions**.

MKK 2023

- **Minimized Core Business Revenues** (Maximizing Industry Benefits)
- **Maximized Ancillary Service & Value Added Service Revenues** (50%)
 - Data/Information Vendoring
 - Financial Information Services
 - Investor Services
 - Commodity & Capital Market Integration
- **Innovative IT Services & Software Development**
- **New Value Added Services to utilize information capacity**
- **Integration, Cooperation and Partnerships with Europe, Middle East, North Africa and Turkic Republics counterparties to complete the post-trading chain from West to East**

RECENT AND FUTURE PROJECTS

- **e-GOVERNANCE: Corporate Governance & Investor Relations Portal** (TUBITAK R&D Support) (- January 2013)
- **e-GENERAL ASSEMBLY (Electronic General Assembly System)** (TUBITAK R&D Support) (- October 2012)
- **e-CAS: Investor Notification and Alert System** (-October 2012)
- **Corporate Actions Automation** (- September 2013)
- **e-COMMODITY: Electronic Warehouse Receipt Center** (-November 2012)

RECENT AND FUTURE PROJECTS

- **e-DATA: Capital Markets Data Bank** (2013-2014)

- **e-COMPANY: Companies Information Portal** (2013-2014)

- Integration with the National Judiciary Informatics System (UYAP) (- 2013)

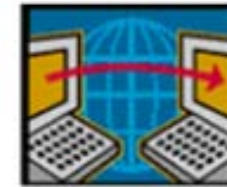
- Integration with the Turkish Company Registry Number System (MERSIS) (2013-2014)

e-GOVERNMENT INTEGRATION

Application for
e-GOVERNMENT Password



T.R. ID No &
e-GOVERNMENT
Password



e-GOVERNMENT
Integration



MKK Electronic Registry No &
Password

✓ MKK Investor Services are
among the many services
provided by e-Government
application

INVESTOR SERVICES



- MKK REGISTRY NO. & PASSWORD
- TR ID No and MKK Password
- E-mail Address

e-MKK

Information
Portal
(www.mkk.com.tr)



e-CAS :
Investor Notification

e-GOVERNANCE :
Corporate Governance & Investor
Relations

e-GEM :
Electronic General Assembly Meetings

e-DATA :
Capital Markets Data Bank

e-Government

- e-Government
- Mobile Signature
- Electronic Signature

Reporting

- Portfolio Status
- Account Movements
- Securities Reports
- Company Information and Documents
- Company Announcements
- Information on Corporate Actions
- GM Docs and Information
- Statistics
- Surveys
- Investor Blockage
- Electronic Voting
- Electronic Proxy



MKK
MERKEZİ KAYIT KURULUŞU

AloMKK
(444 0 655)



IVR System/ Call Center

Mobile Services
SMS (2655)



MobileBlockage

Electronic Reports
(e-posta)



er@gon:
Electronic Report Posting System

Electronic Notification
(SMS & e-mail)



e-CAS : Investor Notification

Random Notifications
(postal)



Random Report Delivery

Information

- Portfolio Status
- Account Movements
- Reports

Investor Blockages

Periodic Notification

- Portfolio Status
- Account Movements

Instant Notifications

- Account Movements
- Information on Corporate Actions

- Monthly 10,000 Investors
- Portfolio Status

INVESTOR SERVICES



- MKK REGISTRY NO.& PASSWORD
- TR ID No and MKK Password
- E-mail Address

e-MKK

Information Portal
(www.mkk.com.tr)



e-CAS :
Investor Notification



e-GOVERNANCE :
Corporate Governance & Investor Relations



e-GEM :
Electronic General Assembly Meetings



e-DATA :
Capital Markets Data Bank

MKK
MERKEZİ KAYIT KURULUŞU

e-Government

- e-Government
- Mobile Signature
- Electronic Signature

- Reporting
 - Portfolio Status
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- Investor Blockage
- Electronic Voting
- Electronic Proxy



AloMKK
(444 0 655)



IVR System/ Call Center

Mobile Services
SMS (2655)



MobileBlockage

Electronic Reports
(e-posta)



er@gon:
Electronic Report Posting System

Electronic Notification
(SMS & e-mail)



e-CAS : Investor Notification

Random Notifications
(postal)



Random Report Delivery

- Information
 - Portfolio Status
 - Account Movements
 - Reports
- Investor Blockages
- Periodic Notification
 - Portfolio Status
 - Account Movements
- Instant Notifications
 - Account Movements
 - Information on Corporate Actions
- Monthly 10,000 Investors
 - Portfolio Status



Public Companies Reaching all Shareholders



News and Developments

- First issuance of certificates
- MKK continues to support capital markets stake holders by making a new discount in its fees.
- CRAweb Investor Module Has Been Transferred To The e-GOVERNANCE Corporate Governance And Investor Relations Portal.
- Studies With ELİDAŞ Have Started For The Conversion Of Cotton Commodity Certificates Into Electronic Commodity Certificates.

Genel Mektup Duyuruları

MKS Uygulama Düzenlemeleri Hakkında Bilgilendirme

Genel Mektup 606 - 07 Eylül 2012

Sertifikalara İlişkin Uygulamalar ve Ücretlendirme

Genel Mektup 605 - 07 Eylül 2012

MKK Elektronik Genel Kurul Sistemi Uygulamaları

Genel Mektup 604 - 31 Ağustos 2012

NEW

e-MKK
Central Registry Agency Information Platform

e-CAS
Investor Notification and Alert System

e-GOVERNANCE
Corporate Governance and Investor Relations

e-GENERAL ASSEMBLY
Electronic General Assembly System

e-DATA
Capital Markets Data Bank



MKK CORPORATE
PROFILE



e-GOVERNANCE



e-GENERAL ASSEMBLY



e-DATA



INVESTORS
PROTECTION FUND



444 0 655



e-GOVERNANCE

Corporate Governance & Investor Relations Portal

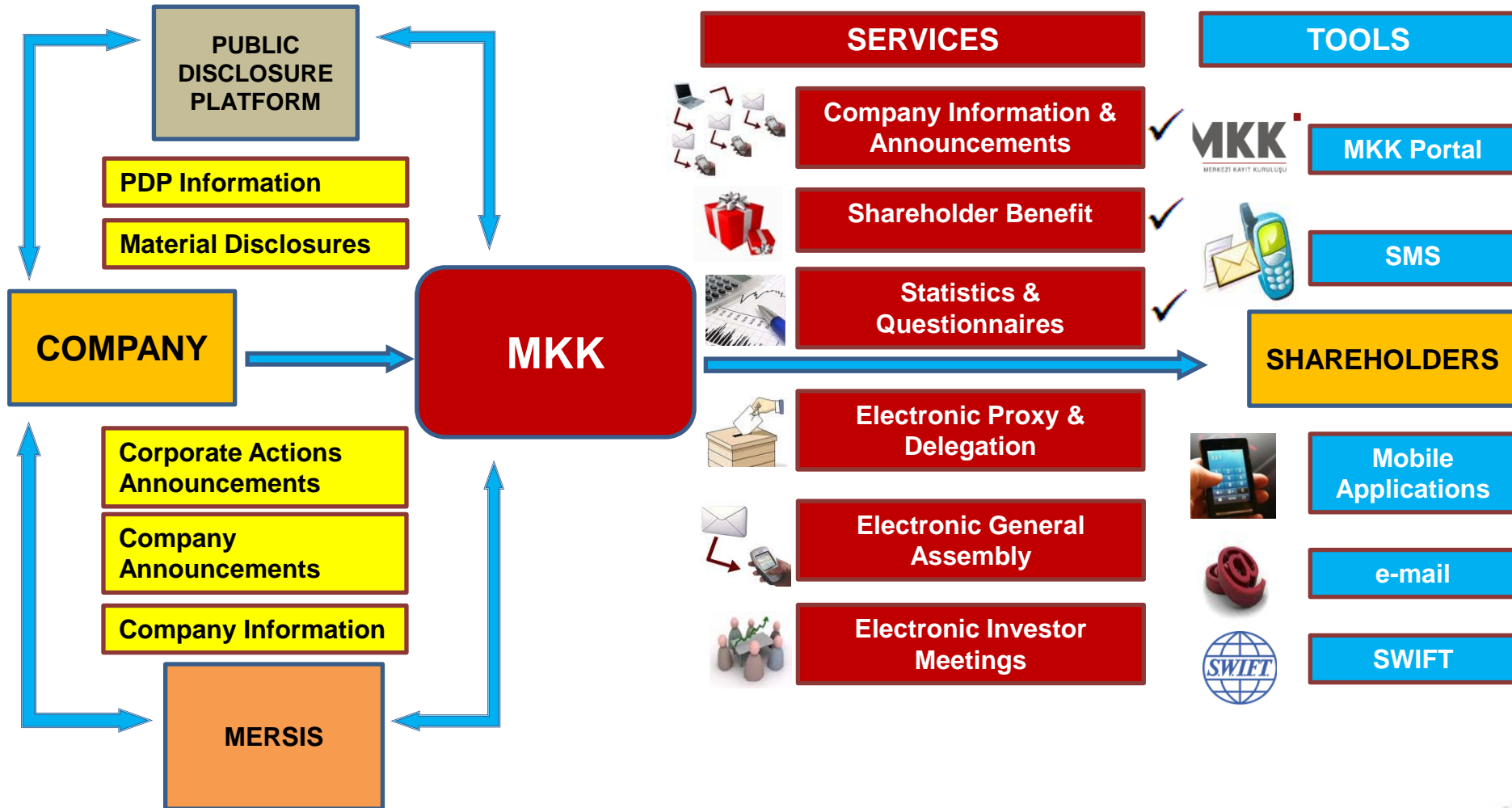
- **Mobile Corporate Governance** Project which is a platform to enhance corporate governance and investor relations and develop transparency and information access for market participants
- Communication bridge between companies and shareholders
- Continuous information exchange between shareholders and companies through internet, e-mail and mobile applications
- Enables companies to reach their shareholders directly
- Enables shareholders to access information on companies easily and completely
- **Investor Information Center**
- TUBITAK R&D support





e-GOVERNANCE:

Corporate Governance & Investor Relations Portal





e-GENERAL ASSEMBLY

Electronic General Assembly System (e-GEM)

- Full disclosure of general assembly meeting information instantly
- Obligation for all ISE Listed Companies from October, 2012
- Live broadcast of General Assembly meetings with English Language Option
- Shareholder participation to General Assembly meetings by remote access and mobile applications through the MKK Portal
- All operations on a single point with electronic signature
- Electronic Proxy Assignment
- Electronic Voting Registration & Instruction
- Electronic Voting Services
- Offering of suggestions and expression of opinions through internet
- Informing all stakeholders instantly on transactions
- TUBITAK R&D Support



e-GEM – Electronic General Assembly System

- e-GEM provides general meeting services for investors, custodians, intermediaries and issuers.
- Custodians and intermediaries can manage proxy voting on e-GEM.
- Shareholders can appoint their local brokers or any other parties via e-GEM.
- Investors can manage their votes and attendance choices from the meeting list.
- e-GEM is an operational portal but also is a hub to all relevant data gathered from the Turkish market.
- Investors can watch meetings concurrently and express opinions, ask questions and vote on-line on e-GEM.
- Shareholders can register their votes prior to the general meeting with the opportunity to change their votes during the general meeting.
- Meeting documents, audio-visual records and voting results will be electronically archived.



e-GEM – Electronic General Assembly System

e-GEM removes present barriers to cross-border proxy voting

- Share Blockage is removed
- No PoA requirement when giving proxy to local custodian
- Partial & split voting is allowed
- Timely and accurate access to proxy materials
- Information and disclosure barriers are removed:
 - **Instant notification via SMS and e-mail** → Following each operation carried out on e-GEMS all related parties are informed by a notification (Portal / SMS / e-mail) instantly.
 - **Voting results** are sent to investors via SMS/e-mail.
 - With the introduction of corporate action automation project, custodians are expected to receive General Meeting announcements via SWIFT (ISO15022) – Q4 in 2012.
 - Integration with Public Disclosure Platform will be achieved by 2014.

e-GEM Investor Screen

Gündem

Madde No	İçerik	Sonuç
1	Açılış ve Başkanlık Divanının Tesekkülü	
2	Toplantı tutanaginin imzalanması konusunda divana yetki verilmesi	
3	Yönetim kurulu faaliyet raporu ile denetçi raporlarının okunması	
4	Bagimsiz dış denetçi raporunun okunması	
5	Bilanço ve kar/zarar hesaplarının okunması, müzekkeresi ve tasdiki	
6	Yönetim Kurulu ve Denetim Kurulu üyelerinin ibra edilmeleri	
7	Kar dağıtım tablosu teklifinin görüşülerek kabulü veya reddi	
8	Yönetim Kurulu ve Denetim Kurulu üyelerinin ücretlerinin tespiti	
9	Yönetim Kurulunca atanan bagimsiz dış denetim kurulusunun onaya sunulması	

Görüşülen/Oylama Yapılan Gündem Maddesi

Madde No	Madde İçerik
Süre 00:00	Durum

Görüş İletim Alanı

Görüş : 1 / 2 Kalan Karakter : 600

Başkanlık divanı için önerim aşağıdadır |

İlet

Oy İletim Alanı

Oy Oranı

Grup	İtibari Değer	Toplam Kabul	Toplam Ret

Oy Detay

İlet

Tümü Kabul

Tümü Ret



Genel Kurul Akış Metni

Genel Kurul toplantısı başlanmıştır.
1 Nolu gündemin görüşmelerine başlandı.

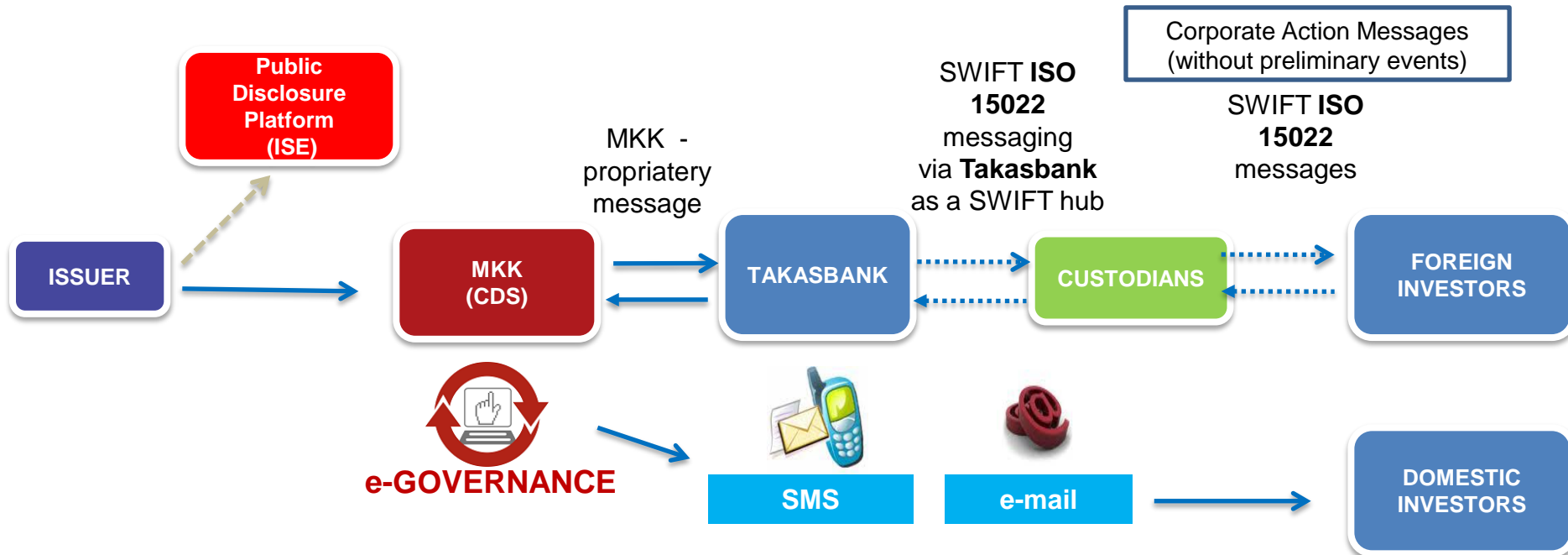


e-CAS Investor Notification and Alert System

- Notification of Investors via SMS & e-mail instantly
- Activates whenever a transaction on their accounts is made
- Real time notification of investors on possible errors and fraudulent attempts that take place on their accounts.
- Decreases possible individual or systemic risks
 - Notification Phase: Notification is made after the transaction is completed.
 - Blocking Phase: Transaction is not completed unless the investor subscribes to e-CAS Service.
 - Approval Phase: Transaction is executed only if investor approves electronically.

CURRENT CORPORATE ACTION AUTOMATION

Event Processing

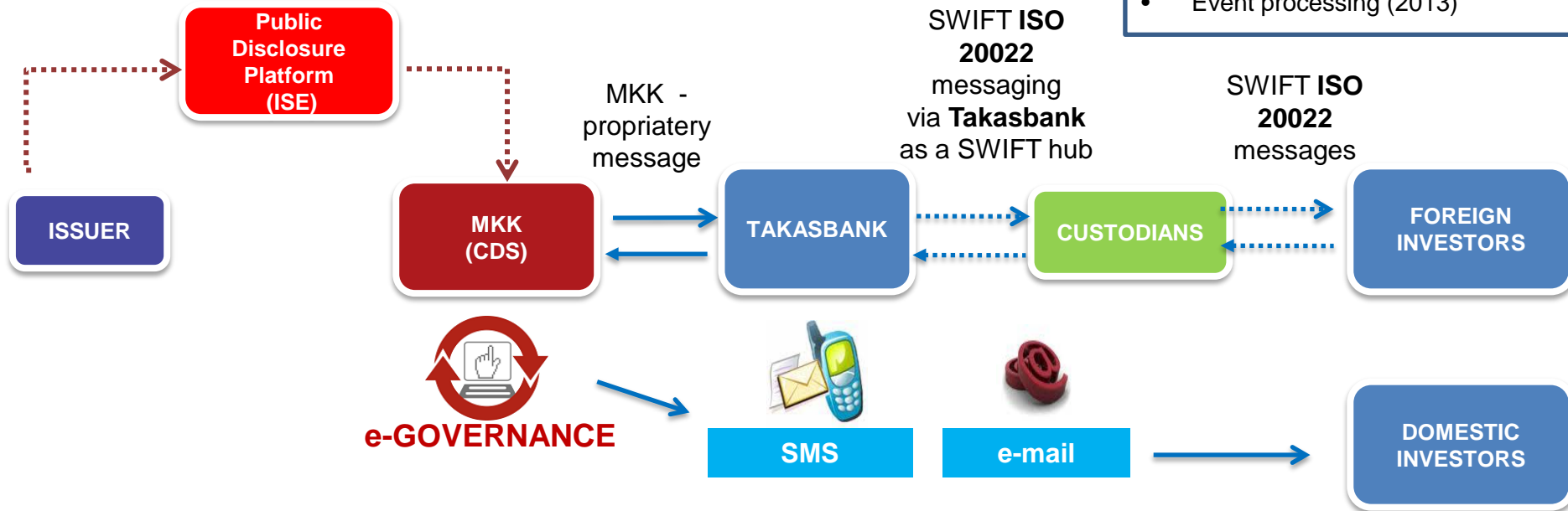


FUTURE CORPORATE ACTION AUTOMATION

Event Processing

- **PDP is Primary Source of Information**
- Compliance to Corporate Actions Joint Working Group and ISSA Principles

- Paperless and automated
- Event creation (2012)
- Event communication (2012)
- Event processing (2013)





e-COMMODITY Electronic Warehouse Receipt Center

- Adapting the dematerialized system to agricultural industry of Turkey and Turkic Republics
- Integration of agricultural sector with capital markets
- Conversion of agricultural products stored in licensed warehouses to electronic warehouse receipts
- Safekeeping of electronic warehouse receipts in MKK's electronic book-keeping system
- Trading of products at the Commodity Exchange
- Farmers Notification System





e-DATA Capital Markets Data Bank

- Central data bank of the capital markets
- Co-operation with **Ozyegin University** & **Markit Partners**
- Distribution of all data produced in the Turkish capital markets by econometric models in a secure, consistent and reliable manner
- Statistics on capital markets in international standards
- Academic articles and research reports
- Electronic securities database
- Contributing to academic research and decision-making processes of policy makers
- Providing reliable & consistent data to ratings institutions
- **Investor Risk Appetite Index, Attachment Index and Financial Indicators**

ÖZYEĞİN
ÜNİVERSİTESİ

markit™





e-COMPANY: Companies Information Portal

- Article No.1524 of the new Turkish Commercial Law :
 - Joint stock companies are required to open web sites and
 - Disclose information and documents stated by the law on their web sites
- On the MKK e-COMPANY Portal:
 - Integration with the company web sites
 - Gathering of company information and documents
 - Providing data and information on all companies from a single source
 - Disclosure of corporate & financial information and documents in **XBRL**.
 - Ensuring necessary security levels
 - Enabling effective access from a single source and stability
 - Data transfer to the Central Corporation Registry Number System (MERSIS) infrastructure





THANK YOU