Capital Markets and ATHEX Group: Challenges and Opportunities
Agenda

- ATHEXGroup – A short introduction
- Capital Market Infrastructures – Infrastructures & EU Regulations - Main Services
- Greek Capital Market – Network Externalities, Access
- Is there track record evidence that the Greek Capital market can assist in companies’ funding?
- Financing through the Capital markets – EU and Greece
- ATHEX Group Ancillary Services – Examples of enhanced portfolio of services
ATHEX Group

A short introduction
Group Structure

A Synopsis

- **Operator** of the Greek Spot, Derivatives & Bonds Markets
- **Vertical Integration.** Trading, Clearing, Settlement and Registry systems
- **Listed Company** on Athens Stock Exchange (August 2000)
- Fully **Privatized Group** (2003), free float ~ 100%
- **High Cash Position**, €68.0mil (FY 2020) with zero debt
- **High Dividend Policy**, 3.5% (FY 2019), 4.3% (FY 2018), 3.8% (FY 2017) with high payout ratio
### ATHEX Group Overview

#### Ownership

<table>
<thead>
<tr>
<th>By Investor Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>39.5%</td>
</tr>
<tr>
<td>Local Retail</td>
<td>31.4%</td>
</tr>
<tr>
<td>Local Institutional</td>
<td>20.3%</td>
</tr>
<tr>
<td>Local Banks</td>
<td>5.8%</td>
</tr>
<tr>
<td>ATHEX Members</td>
<td>1.0%</td>
</tr>
<tr>
<td>ATHEX (Treasury Stock)</td>
<td>----</td>
</tr>
<tr>
<td>Management Team</td>
<td>0.1%</td>
</tr>
<tr>
<td>Other Greek Investors</td>
<td>1.8%</td>
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</table>

<table>
<thead>
<tr>
<th>By Country of Origin</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Greece</td>
<td>60.5%</td>
</tr>
<tr>
<td>USA</td>
<td>11.7%</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>7.9%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>5.7%</td>
</tr>
<tr>
<td>Ireland</td>
<td>3.8%</td>
</tr>
<tr>
<td>British Virgin Islands</td>
<td>1.7%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1.6%</td>
</tr>
<tr>
<td>France</td>
<td>1.2%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Shareholders &gt; 5%</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>London &amp; Amsterdam Trust</td>
<td>Goldman Sachs</td>
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</table>

**International Investor Participation**

<table>
<thead>
<tr>
<th>Year</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>13.8%</td>
</tr>
<tr>
<td>2004</td>
<td>21.2%</td>
</tr>
<tr>
<td>2005</td>
<td>25.1%</td>
</tr>
<tr>
<td>2006</td>
<td>47.1%</td>
</tr>
<tr>
<td>2007</td>
<td>63.0%</td>
</tr>
<tr>
<td>2008</td>
<td>52.0%</td>
</tr>
<tr>
<td>2009</td>
<td>50.5%</td>
</tr>
<tr>
<td>2010</td>
<td>55.3%</td>
</tr>
<tr>
<td>2011</td>
<td>54.5%</td>
</tr>
<tr>
<td>2012</td>
<td>46.0%</td>
</tr>
<tr>
<td>2013</td>
<td>53.1%</td>
</tr>
<tr>
<td>2014</td>
<td>55.3%</td>
</tr>
<tr>
<td>2015</td>
<td>58.4%</td>
</tr>
<tr>
<td>2016</td>
<td>56.8%</td>
</tr>
<tr>
<td>2017</td>
<td>57.2%</td>
</tr>
<tr>
<td>2018</td>
<td>58.8%</td>
</tr>
<tr>
<td>2019</td>
<td>53.4%</td>
</tr>
<tr>
<td>2020</td>
<td>41.2%</td>
</tr>
<tr>
<td>2021</td>
<td>39.5%</td>
</tr>
</tbody>
</table>

Source: ATHEXGROUP, March 31st 2021
ATHEX Group Overview

Important Milestones

1876
- Law 1806/1988 sets the ground rules for ASE
- Abolition of brokers as physical persons; first brokerage SAs founded

1988
- ATHEX
  - Start of the first electronic trading system ASIS

1991
- The Central Securities Depository (now ATHEXCSD) is founded

1999
- Mar- Holding Company is founded

2000
- The IPO

2006
- HELEX completed the spin-off of its clearing business

2010
- Access to international markets
  - Trading & Post-trading

2011
- Common Platform begins operation.

2014
- SIBEX derivatives trading & clearing by ATHEX Group

2015
- Access to international markets
  - Trading & Post-trading

2016
- Implementation of MiFID II / MiFIR
  - ARM
  - APA
  - RDS data services

2017
- Provision of Gas Balancing Platform
  - LNG storage
  - Auctions Platform to DESFA
- Participation in the share capital of the newly established Hellenic Energy Exchange (EnEX)

2018
- "Designated Offshore Securities Market" by SEC
- ATHEX acting as Service Provider for EnEX on its Spot & Derivatives Markets

2019
- 44% stake in Boursa Kuwait as part of consortium
- ATHEX Group’s active involvement in Energy Markets through its experience and strong know how in the development, set up, systems and operation of Exchange & Clearing services
Capital Market Infrastructures
Infrastructures and EU Regulations – Main Services
The Capital Market
The role of the key infrastructures (Stock Exchange, CCP, CSD) vs Key EU Regulation

Key EU Regulation

- Prospectus Directive
- MiFID II / MiFIR

Stock Exchange

- Primary market
- Secondary market
- Firms raise capital
  - debt
  - equity
- Public offer
- Private placement
- Investors trade securities issued in primary market
- Transactions fulfillment is guaranteed

Clearing House (CCP)
- EMIR

Central Securities Depository
- CSDR

Settlement of transactions and keeping of securities in “central” accounts
The Regulated Market

Main benefits and function of a stock exchange vs other type of venues

- **Rules and Access**
  - Establishes rules for fair trading practices and monitors the trading activities of its members
  - Access is provided via its Members- brokers, banks and investment firms (Intermediation)
  - It is regulated by the relevant Regulatory Authority

- **Neutrality**
  - The exchange does not enter in trades (on own account or on agency basis)

- **Fairness**
  - It assures that no investor will have an undue advantage over other market participants

- **Market Efficiency**
  - Executed transactions are cleared and settled efficiently via STP processes
  - Best execution requirements from brokers

- **Transparency**
  - Listed companies must disclose information in a timely, complete and accurate manner to the Exchange and the public on a regular basis - Closes asymmetry of information gap
  - Required information include stock price, corporate conditions and developments dividend, mergers and joint ventures, and management changes etc
  - Investor make informed and intelligent decision about the particular stock based on information

- **Liquidity and Efficiency**
  - Liquidity provision via market makers or via order book and incentives - Low transactions costs
  - Pre and Post-trade transparency for increased market efficiency
Europe under MiFID II / MiFIR - 2019

What has happened with the trading venues in Europe

Order Size

OTC

SIs with Quote>SMS

SIs with Quote<SMS

SIs

Central Limit Order books

Request For Quote (RFQ)

Multilateral RFQ

Bilateral RFQ

Conditional

LIS Venues

ATHEX - Block Trades

ATHEX - CLOB

ATHEX - CLOB Auctions

ATHEX - CLOB

Lit

Central Limit Order books

(Periodic) Auctions

(bilateral)

(multilateral)

Counterparties
2021 – 3.5 years of MiFID II /MiFIR

Fragmentation of EU’s trading volume (Source: Fidessa)

EUROZONE
Start date: 3/5/2021
End date: 7/5/2021
Listing filter: Primary listing only
Currency: EUR
Chart interval: weekly

SPAIN
Start date: 3/5/2021
End date: 7/5/2021
Listing filter: Primary listing only
Currency: EUR
Chart interval: weekly

GREECE
Start date: 3/5/2021
End date: 7/5/2021
Listing filter: Primary listing only
Currency: EUR
Chart interval: weekly

Report type: Group by venue
Categories: Lit, Dark, Off-book, SI
Benchmark: Consideration
ATHEX Group Systems, Infrastructure & Services

Core Systems & Services: Clearing & Settlement Platform

ATHEX Clearing System complies with EU and Global market standards and operational best practices:

- EMIR Risk Management rules
- Waterfall Risk models – Stress Tests
- Real-time pre-order Margin Calculation for each Clearing Account following an algorithm based on general and specific risk for the unsettled trades
- Continuous Credit limit recalculation for every member during the trading day
- Clearing model which includes: Direct and General Clearing Members, Clearing Space per market with separate Clearing Member’s funds, guarantees, Clearing Accounts for each Clearing Member connected to one or More Clearing Sub Accounts of Trading Members, Collateral management

Clearing & Risk Management for Spot & Derivatives Products

- Position Management
- Collaterals Management & Valuation
- Real Time Risk Management and pre-order Credit Limit Validation (interface with Trading System is required)
- Financial Settlement / Interface with TARGET 2 or other Commercial Bank System
- STP procedures & Real Time communication with all Market participants
- Reporting

... supplemented with ATHEX’s Facilities management
Emir license Extension (2021)
CSDs - Services Classification under CSDR

Core Services – ATHEXCSD provides all 3 services

- Initial recording of securities in a book-entry system (‘notary service’)
  - Newly created securities by private companies or public institutions (“issuers”) are deposited into ATHEXCSD (“issuer CSD”) in dematerialized form.
  - The “Issuer CSD” is ensuring the “integrity of the issue”.

- Providing and maintaining securities accounts at the top tier level (‘central maintenance service’)
  - Safekeeping (or “central maintenance”) of securities, enabling the full segregation of securities between participants, and between participants and their clients offering both individual and omnibus client segregation
    - Individual segregated accounts
    - Omnibus segregated accounts
  - “Top tier level”: CSDs are at the top of the securities chain, i.e. all holdings in a given financial instrument, whether by an individual or a financial institution, are ultimately kept in a securities account at the CSD.

- Operating a securities settlement system (‘settlement service’)
  - Settlement of securities transactions either on or off-exchange (“delivery versus payment” - DvP, etc)
CSDs – Account Structure competitiveness

ECSDA Survey - Account segregation at CSDs in Europe before CSDR

Due to Segregated Accounts structure:
ATHEXCSD provides to issuers

- Daily registry (‘extended notary service’)
- This service is enhanced under CSDR
## CSDR and ATHEXCSD

### New account structure under CSDR - 12/4/2021

<table>
<thead>
<tr>
<th>Account Type</th>
<th>Individual</th>
<th>Fund</th>
<th>No of accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor share</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Investor Share Account</td>
<td></td>
<td>Joint Investor Share Account</td>
<td></td>
</tr>
<tr>
<td>Co-Owners Investor Share Account</td>
<td></td>
<td>Co-Owners Investor Share Account</td>
<td></td>
</tr>
<tr>
<td>Compulsory Consignment Share Account</td>
<td></td>
<td>Escrow &amp; Compulsory Consignment Share Account</td>
<td></td>
</tr>
<tr>
<td>Transitory Settlement Account</td>
<td></td>
<td>Intermediary Transitory Settlement Account</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Segregated &gt; 2.5 m</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Omnibus 53</td>
</tr>
</tbody>
</table>

**Segregated**  
**Omnibus**
Greek Capital Market

Network Externalities – Access
Today seven (7) network hubs are in operation in order to serve the participants needs and to achieve lower telecommunication costs.

- 3 hubs in Athens (Greece)
- 1 hub in Thessaloniki (Greece)
- 2 hubs in London (UK)
- 1 hub in Nicosia (Cyprus)
ATHEXCSD as Issuer/Investor CSD

Provision of access to Local & International Investors

- **Inbound services (Greek/Foreign ISINs) – Issuer CSD Services**

- **Outbound Services (Foreign ISINs) – Investor CSD Services**
Distribution of ATHEX securities markets Investors

Worldwide dispersion - Access via Members Network and Custodians Network
ATHEX Markets

Is there track record evidence that the Greek Capital market can assist in companies’ funding?
Public sector companies IPOs in ATHEX

Positive historic track record

- During the last 25 years ATHEX has been used as a transparent platform
  - for IPOs and share capital increases for companies of the public sector
- For 17 companies
- Raising through the IPO process (in single or multiple tranches) ~ €12bn
- Raising through share capital increases an additional ~ €6bn
- Athens Exchange is one of them

<table>
<thead>
<tr>
<th>Company</th>
<th>ATHEX listing date</th>
<th>Number of Shares Issued</th>
<th>IPO amount (€)</th>
<th>S.C.I. amount (€)</th>
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<tbody>
<tr>
<td>Hellenic Telecom</td>
<td>19/4/1998</td>
<td>24,014,384</td>
<td>572,801,747</td>
<td>261,900,315</td>
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<tr>
<td></td>
<td>3/6/1997</td>
<td>34,719,950</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>11/6/1997</td>
<td>18,793,590</td>
<td>351,300,176</td>
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<tr>
<td></td>
<td>18/6/1997</td>
<td>31,646,015</td>
<td>337,283,271</td>
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<td></td>
<td>20/10/2000</td>
<td>50,406,470</td>
<td>902,547,075</td>
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<td></td>
<td>5/7/1998</td>
<td>87,170,070</td>
<td>1,481,307,278</td>
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<td></td>
<td>13/6/2002</td>
<td>40,328,000</td>
<td>505,280,000</td>
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<tr>
<td></td>
<td>5/11/2000</td>
<td>14,865,886</td>
<td>431,110,194</td>
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<tr>
<td></td>
<td>5/8/2000</td>
<td>24,527,510</td>
<td>673,066,773</td>
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<tr>
<td>Hellenic Duty Free Shops</td>
<td>20/3/1990</td>
<td>7,625,000</td>
<td>71,205,720</td>
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<tr>
<td>Hellenic Petroleum</td>
<td>30/6/1998</td>
<td>27,841,792</td>
<td>1,940,507,710</td>
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<td></td>
<td>27/7/2000</td>
<td>30,608,000</td>
<td>366,566,348</td>
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<td></td>
<td>17/4/2000</td>
<td>78,018,750</td>
<td>571,577,354</td>
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<td></td>
<td>4/3/2003</td>
<td>43,500,000</td>
<td>320,000,000</td>
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<td>ATE Insurance</td>
<td>28/2/1999</td>
<td>2,658,000</td>
<td>27,501,541</td>
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<td>Olympic Catering</td>
<td>28/11/2002</td>
<td>4,039,350</td>
<td>15,141,400</td>
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<td>ETBA</td>
<td>12/1/2000</td>
<td>33,093,170</td>
<td>383,944,798</td>
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<td>EYDAP–Water Company</td>
<td>28/1/2000</td>
<td>6,500,000</td>
<td>229,125,926</td>
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<tr>
<td>Hellenic Exchanges</td>
<td>21/8/2000</td>
<td>2,500,000</td>
<td>38,729,090</td>
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<td></td>
<td>19/7/2003</td>
<td>23,746,210</td>
<td>89,048,288</td>
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<tr>
<td>Cosmote</td>
<td>12/10/2000</td>
<td>17,500,000</td>
<td>163,515,225</td>
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<tr>
<td>Agricultural Bank</td>
<td>19/1/2001</td>
<td>13,676,500</td>
<td>431,682,048</td>
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<tr>
<td>OPAP</td>
<td>4/2/2000</td>
<td>524,948,844</td>
<td>1,286,888,388</td>
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<td></td>
<td>26/4/2001</td>
<td>793,000,000</td>
<td>93,024,265</td>
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<td></td>
<td>10/7/2002</td>
<td>60,300,000</td>
<td>503,463,770</td>
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<tr>
<td></td>
<td>9/2/2003</td>
<td>76,000,000</td>
<td>725,740,542</td>
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<td></td>
<td>17/7/2003</td>
<td>7,438,000</td>
<td>1,255,781,500</td>
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<tr>
<td>Thessaloniki Ports Auth.</td>
<td>11/10/2013</td>
<td>105,270,000</td>
<td>52,000,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27/8/2001</td>
<td>2,520,000</td>
<td>6,785,643</td>
<td></td>
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<tr>
<td>EYATH–Water Company</td>
<td>21/9/2000</td>
<td>1,500,000</td>
<td>16,392,427</td>
<td></td>
</tr>
<tr>
<td>Public Power Company</td>
<td>12/12/2001</td>
<td>12,600,000</td>
<td>312,810,000</td>
<td>149,970,000</td>
</tr>
<tr>
<td>AGP</td>
<td>31/12/2000</td>
<td>30,614,000</td>
<td>370,937,575</td>
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<tr>
<td>Agricultural Life Ins.</td>
<td>1/2/2002</td>
<td>4,167,500</td>
<td>56,705,796</td>
<td></td>
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<tr>
<td>Piraeus Ports Authority</td>
<td>8/8/2003</td>
<td>6,375,000</td>
<td>56,725,846</td>
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<tr>
<td>Postbank</td>
<td>5/6/2005</td>
<td>49,080,000</td>
<td>611,598,739</td>
<td></td>
</tr>
<tr>
<td>Agricultural Bank</td>
<td>19/6/2009</td>
<td>1,424,232,982</td>
<td>578,692,033</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7/5/2012</td>
<td>1,577,077,772</td>
<td>1,255,072,214</td>
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</tr>
<tr>
<td></td>
<td>10/1/2012</td>
<td>281,313,153</td>
<td>11,856,796,200</td>
<td>9,083,300,377</td>
</tr>
</tbody>
</table>

Source: ATHEX GROUP
Greek listed companies have raised €63.3 bil in 2011 – 2021

In 2013 ATHEX ranked in the 3rd place based on capital raised among FESE members

€10.2 bil the new capital from the private sector during 2015 Greek Banks recapitalization

Total Positive Flows from International Investors of €5.0 bil in 2011 – 2021

€16.7 bil the new capital from International Investors during 2014 – 2015 Greek Banks recapitalizations
International Investors

Daily trading activity steadily above 50%

Investor Participation in Cash Market
(as % of total trading activity)

2021
Total Market Turnover €4.5 bil
International Inv. Turnover €2.4 bil

Top 10 of Trades (% of total) by Country of Origin

Source: ATHEXGROUP, AxiaNumbers publication March 31st 2021
International Investors

Consistently high participation in the Market Capitalisation

Investor Participation in Cash Market
(as % of total market capitalization)

Top 10 Holdings by Country of Origin

Source: ATHEXGROUP, AxiaNumbers publication March 31st 2021, # Including HFSF stakes in the 4 systemic banks
Potential for Growth

Banks recovery and private sector growth are main underlying reasons

Historic Market Capitalization to GDP

(market capitalization / gross domestic product, %)

Evolution of Market Capitalization Breakdown

Source: Eurostat, ATHEXGROUP, March 31st 2021, FESE Members February 26th 2021
Liquidity Levels
Covid impact has been left behind

Historic Turnover Velocity
(total trade value / market capitalization, %)

Evolution of Cash Market Trading Activity

Source: ATHEXGROUP, March 31st 2021, FESE Members February 26th 2021
Impressive return for the **Hellenic Corporate Bond** Index from the low prices of July 2015

Source: ATHEXGROUP, March 31st 2021
OTC Market

Evolution of Trading Activity

Source: ATHEXGROUP, March 31st 2021
Derivatives Market

Increased activity in 2021

Historical Trading Activity (th.)

Breakdown of Trading Activity per Product (th.)

Source: ATHEXGROUP, March 31st 2021
Financing through the Capital Markets
EU and Greece
The past

Low use of capital markets by SMEs in the EU

- Capital Markets in EU have not been used effectively for funding companies – especially SMEs

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**European¹ SME financing sources use between April and September 2014**

<table>
<thead>
<tr>
<th>Source of Financing</th>
<th>EU-28 SMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overdrafts and credit lines</td>
<td>37%</td>
</tr>
<tr>
<td>Leasing and hire purchasing</td>
<td>29%</td>
</tr>
<tr>
<td>Internal funds¹</td>
<td>14%</td>
</tr>
<tr>
<td>Bank loans</td>
<td>13%</td>
</tr>
<tr>
<td>Grants or subsidised bank loan</td>
<td>9%</td>
</tr>
<tr>
<td>Trade credits</td>
<td>9%</td>
</tr>
<tr>
<td>Other loan</td>
<td>7%</td>
</tr>
<tr>
<td>Factoring</td>
<td>6%</td>
</tr>
<tr>
<td>Other sources</td>
<td>4%</td>
</tr>
<tr>
<td>Equity</td>
<td>3%</td>
</tr>
<tr>
<td>Debt issuance</td>
<td>1%</td>
</tr>
</tbody>
</table>

EU-28 SMEs, Source: SAFE analytical report 2014
Paradigm shift

*Increased use of capital markets for SMEs is expected by the EU*

- Anglo-saxon model - tilted to Capital Markets

> “It is commonly understood that an overreliance on bank based funding can be seen as an impediment to economic growth and a factor leading to higher systemic vulnerability of the economic system” (European Commission, 2015)

- Most recent research shows that bank and capital markets based financing can complement each other as they increase the number of options for borrowers.

*Source: WFE, Economic Intelligence Unit*
Policy and Regulatory trends in the EU

Main priorities

1. **Financing for innovation**, start-ups and non-listed companies
2. Making it easier for companies to **enter and raise capital in public markets**
3. **Long term and sustainable** investment – ESG principles, Green principles
4. Fostering **retail and institutional investment**
5. **Leveraging banking capacity** to support the wider economy
6. Facilitating **cross-border** investing
SMEs are extremely Important for the Greek Economy

Better access to finance is needed

- Small and Medium sized enterprises (SMEs) dominate the Greek economy, accounting for 86% of employment and 72% of added value – significantly higher than the relative EU average.

- The Greek SME sector is more heavily based on microcaps – significantly higher than the EU average.

<table>
<thead>
<tr>
<th></th>
<th>Number of Enterprises</th>
<th>Number of Employees</th>
<th>Value Added</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greece</td>
<td>EU-28</td>
<td>Greece</td>
</tr>
<tr>
<td></td>
<td>Number</td>
<td>Proportion</td>
<td>Proportion</td>
</tr>
<tr>
<td>Micro</td>
<td>629,811</td>
<td>96.2%</td>
<td>92.4%</td>
</tr>
<tr>
<td>Small</td>
<td>21,669</td>
<td>3.3%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Medium</td>
<td>2,464</td>
<td>0.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>SMEs</td>
<td>653,944</td>
<td>99.9%</td>
<td>99.8%</td>
</tr>
<tr>
<td>Large</td>
<td>423</td>
<td>0.1%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Total</td>
<td>654,367</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

- SMEs constitute a significant proportion of ATHEX listed companies, both in the Regulated Market (43%) and the Alternative Market (92%)

- From exporters and medium SMEs there is an estimated €12-16 bn need for funding Greek SMEs (Oliver Wyman study)
Market Structure & Products

Securities Market

Regulated Market
(Mkt Cap\(^1\) €57.4bil, A.D.T.V. €74.8mil)

- Shares: 157
- Exchange Traded Funds: 1
- Bonds: 11
  - Corporate: 40
  - Government: 9
- ENA Plus: 4
- ENA Step: 35

Alternative Market - MTF
(Mkt Cap\(^1\) €148.1mil, A.D.T.V. €113.4thous)

- Shares: 1
- Bonds Corporate: 11

Categories of post Listing\(^2\)
- Main Market: 124
  - 22 + 11: Surveillance + Suspended
- Dual Listed Companies
  - Mkt Cap €13.1bil (22.7% of Market Cap), A.D.T.V. €2.0mil (2.8% of Market A.D.T.V.)

Derivatives Market

- Index Futures: 1
- Stock Futures: 27
- Index Options: 1
- Stock Options: 6

1: Excluding Corporate Bonds
2: Listed companies are reviewed every April & October and in case they do not fulfill certain criteria according to ATHEX Rule Book their trading is moved to Surveillance Category or is Suspended.
Financing the Greek Economy
Variety of instruments and tools through the capital market

Debt

Equity

Risk / Growth Capital

Corporate Bonds

New Listings

Listed Investment Products

Electronic Book Building (EBB) Optional Use

Share Capital Increase

Electronic Book Building (EBB) Optional Use

Crowdfunding & Small Startup

Electronic Book Building (EBB) Optional Use

New & Mature Business
ENA STEP, ENA Plus
ENA Fixed Income

ENA Step
Market Initiatives

In the context of enhancing the Greek Capital Market and taking into consideration the EU trend for supporting SMEs, the **ATHEXGROUP** has undertaken initiatives in the following:

### Listing Enhancements
- **Alternative Market (ENA)**
  - Rebuilding the Market
- **Corporate Bonds Market**
- **Listed Funds**
  - Return to the advantageous tax regime

### Promotional Activities
- **International Roadshows**
  - (NY / London)
- **Local Roadshows**
  - (Mid & Small Cap)
- **Roots Program**
  - Pre – IPO Support (9 companies)
- **EBRD SME Pre Listing Support Program**
- **Ecosystem Training**
- **ESG Guide for Listed Companies**
  - (Launched January 2019)

### Market Enhancement
- **New Market Indices**
  - More Representative & Investable
  - Apply Capping to the FTSE/ATHEX Large Cap Index
  - Introduce FTSE/ATHEX High Dividend Yield Index
  - Introduce two New Indices with a focus on Liquidity
- **Attractive Pricing Policy for**
  - IPO
  - Share Capital increases
  - Corporate bond listing
# New Listings

## Flexible listing alternatives

<table>
<thead>
<tr>
<th>Listing Requirements</th>
<th>Main Market</th>
<th>ENA Plus</th>
<th>ENA Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Equity upon Application</td>
<td>€3mil</td>
<td>No Restriction</td>
<td>No Restriction</td>
</tr>
<tr>
<td>Business Activity</td>
<td>3 Years</td>
<td>2 Years</td>
<td>No Restriction</td>
</tr>
<tr>
<td><strong>Profitability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Years Aggregate EBT €2mil Or 3 Years Aggregate EBITDA €3mil</td>
<td></td>
<td>No Restriction</td>
<td>No Restriction</td>
</tr>
<tr>
<td><strong>Free Float</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum (%)</td>
<td>25% (15% for very Large Caps)</td>
<td>15%</td>
<td>No Restriction</td>
</tr>
<tr>
<td>Number of Persons Holding &lt; 5%</td>
<td>300 (exemption in case of Private Placement)</td>
<td>At least 50</td>
<td>No Restriction</td>
</tr>
<tr>
<td><strong>Appointment of Underwriter / Advisor</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underwriter required (at listing stage)</td>
<td></td>
<td>ENA Nominated Advisor (at listing stage and for 2 more years)</td>
<td>ENA Nominated Advisor (at listing stage and for as long as stock remains listed in this trading segment)</td>
</tr>
<tr>
<td><strong>Listing Prospectus (Prospectus Directive)</strong></td>
<td>Required</td>
<td>Required in case of Public Offering &gt; €5mil Otherwise Publication of Information Memorandum</td>
<td>Required in case of Public Offering &gt; €5mil Otherwise Publication of Information Memorandum</td>
</tr>
<tr>
<td><strong>Corporate Governance</strong></td>
<td></td>
<td>Adoption of C.G. Best Practices</td>
<td>Adoption of C.G. Best Practices</td>
</tr>
<tr>
<td>Assessment of Company’s Suitability by ATHEX</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
ATHEX offers funding solutions

*In the more mature stages of the corporates*

---

ATHEX provides Financing Tools

During most stages of the business life cycle of a company

<table>
<thead>
<tr>
<th>Business life cycle</th>
<th>R&amp;D / Prototype</th>
<th>Early stage / Commercial</th>
<th>Growth / Expansion</th>
<th>Establishment / Maturity</th>
<th>Further development or Decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical ways of financing</td>
<td>Share Capital Increase</td>
<td>Share Capital Increase</td>
<td>Share Capital Increase</td>
<td>Share Capital Increase</td>
<td>Bond Loan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bond Loan</td>
<td>Bond Loan</td>
<td>Bond Loan</td>
<td>Refinancing / Debt to Equity conversion</td>
</tr>
<tr>
<td>Financing through ATHEX</td>
<td>Share Issuance (Public Offer and/or Private Placement)</td>
<td>Share Issuance (Public Offer and/or Private Placement)</td>
<td>Share Issuance (Public Offer and/or Private Placement)</td>
<td>Corporate Bonds Issuance (common, convertibles, etc)</td>
<td></td>
</tr>
<tr>
<td>CEBB tool</td>
<td>Share Issuance (Public Offer and/or Private Placement)</td>
<td>Corporate Bonds Issuance (common, convertibles, etc)</td>
<td>Corporate Bonds Issuance (common, convertibles, etc)</td>
<td>Corporate Bonds Issuance (common, convertibles, etc)</td>
<td></td>
</tr>
<tr>
<td>Investment funds</td>
<td>mandatory</td>
<td>optional</td>
<td>optional</td>
<td>optional</td>
<td></td>
</tr>
<tr>
<td>CIF CIF (PIC)</td>
<td>ENA STEP</td>
<td>ENA STEP</td>
<td>ENA PLUS</td>
<td>ENA PLUS</td>
<td></td>
</tr>
<tr>
<td>ENA FIXED INCOME</td>
<td>ENA FIXED INCOME</td>
<td>ENA FIXED INCOME</td>
<td>ENA FIXED INCOME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAIN MARKET</td>
<td>MAIN MARKET</td>
<td>MAIN MARKET</td>
<td>MAIN MARKET</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATHEX Markets</td>
<td>MAIN MKT FIXED INCOME</td>
<td>MAIN MKT FIXED INCOME</td>
<td>MAIN MKT FIXED INCOME</td>
<td>MAIN MKT FIXED INCOME</td>
<td></td>
</tr>
</tbody>
</table>
Investing in SMEs

Through Listed Private Equity - 3i model is a good example

Institutional investors / Strategic investors with increasing appetite to invest in Greece:

- Interested in SMEs companies but have a large ticket size
- Although they might have interest, business-wise, it is not effective for them to invest directly in SMEs, especially in an environment they are not familiar with, because medium/smaller SMEs have:
  - disproportionally high due diligence costs, due to information asymmetry / small size
  - different liquidity needs, investment horizon and risk-return profile
  - non-financial support need, in order to grow and develop their business plan
## Listed Private Equity on ATHEX

*Possible vehicles to enter in EU and Greek companies*

<table>
<thead>
<tr>
<th>Vehicle type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Real Estate Investment Companies</strong> (REICs)</td>
<td><strong>Companies</strong> for the <strong>acquisition and administration</strong> of real estate property and financial instruments. Mandatory listing on the Main Market.                                                                                         <strong>Operate under an advantageous tax regime</strong> at the investor level (gross dividend). Competitive versus its EU and international peers</td>
</tr>
<tr>
<td><strong>Listed Today</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Portfolio Investment Companies</strong> (PICs)</td>
<td><strong>Companies</strong> for <strong>investment primarily in listed shares</strong>, but also in non-listed. Mandatory listing on the Main Market. \ <strong>Operate under a very advantageous tax regime</strong> both at the fund and investor level.                                                                                     <strong>Recent amendments to legislation increased the Fund’s ability to invest in non-listed companies</strong></td>
</tr>
<tr>
<td><strong>Listed Today</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Closed-end Investment Companies</strong> (CICs)</td>
<td><strong>Companies</strong> for <strong>investment primarily in non-listed companies</strong>, but also in listed. Mandatory listing on ATHEX with option to select Market (Main Market or ENA). <strong>Operate under advantageous tax regime</strong> both at the company and investor level.                                                                                  <strong>Recent amendments to legislation increased the Fund’s ability to invest in listed companies and obtain a broad range of investment tools.</strong></td>
</tr>
<tr>
<td><strong>Listed Today</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Closed-end Mutual Funds</strong> (CMFs)</td>
<td><strong>Unincorporated Funds</strong> managed by professional fund managers, for <strong>investment primarily in non-listed companies</strong>, but also in listed. <strong>They are tax transparent</strong> and investors are taxed for income attributed to them on the basis of what applies at their own jurisdiction.                                                                 <strong>Recent amendments to legislation so that they may get listed on ATHEX.</strong></td>
</tr>
</tbody>
</table>

*Page 43*
Advantages of listing
Investment Funds on ATHEX

Advantages for Investors

- Transparent and **harmonized listing & trading framework under EU regulation** – Replicable structures for investment
- They offer the advantage of **risk diversification** across a large variety of financial instruments, with a different risk-return potential
- They allow to gain **exposure** to both listed and non-listed companies through a **single traded security**
- Investment decisions and portfolio management are made by **experienced asset managers** with proven track record
- Possibility of exposure to **SMEs and MicroCaps** with growth and/or exporting profile irrespective of the minimum ticket size available by the investor
- Investment Vehicle shares are **liquid securities** with market valuation at any time providing an easy exit strategy
- **Tax efficient returns** through dividend payments and capital returns
Advantages of listing

Investment Funds on ATHEX

Advantages for the listed Fund

- **Efficient** tax framework
- Possibility to use a **variety of financial instruments** by the asset manager to improve risk-returns
- Listing on ATHEX provides a **wider investor base**, that includes both retail and institutional investors – with foreign investors in ATHEX exceeding 60% of the holdings
- **Choice** to list on either the **Main Market** or admit to trade in the **Alternative Market - EN.A.**, depending on the vehicle
- The listed security can be **marketed to the general public (retail investors)**
- **Low** set up and maintenance **costs**
- **Efficient** listing process
- **Further capital** can be raised efficiently through the capital market
The Future of the Greek capital market

The challenges

✓ Strengthen the Ecosystem
  ▪ Investment banking
  ▪ Local institutional buy side
  ▪ Analysts
  ▪ Brokers – Advice
  ▪ Provide research for mid caps and small caps

✓ “Educate” the issuers
  ▪ Mentoring for the use of capital markets
  ▪ Do not be afraid of the free float
  ▪ Understanding the financial markets and their options
  ▪ Better Corporate Governance

✓ Attract new issuers from Greece and abroad

✓ Increase efficiency of services - Keep costs low – Smart adapt to regulatory requirements

✓ Provide value added services – Remain competitive
ATHEX Group Ancillary Services

Examples of Services to the Ecosystem & 3rd parties
Our “enhanced” Ecosystem

Capital markets ecosystem and other clients

- ATHEX Group
- ATHEX Members, ATHEXCSD Participants, XNET Members
- Investors
- Data Vendors
- Underwriters, Consultants, Legal Advisors, Other Market Participants
- Hellenic Capital Markets Authority
- Other Clients receiving our services
- Other Infrastructures:
  - Cyprus Stock Exchange
  - ENEX / ENEXClear
  - Bursa Kuwait
  - ΔΕΣΦΑ
- System Vendors
- Associations, Institutions
- Issuers and other Companies
### ATHEX Ancillary Services to Ecosystem & 3rd Parties

#### Main examples of Services

<table>
<thead>
<tr>
<th>Pre-IPO and Listing Services</th>
<th>Ancillary Services</th>
<th>Technology and Facilities Management Services</th>
<th>Cultivating Partnerships and Leveraging Systems, Services &amp; know-how to other Infrastructures</th>
</tr>
</thead>
</table>
| ✓ Centralised Electronic Book Building (CEBB) | ✓ Data Feed Services  
  ▪ Local market  
  ▪ Foreign markets | ✓ Colocation and Proximity services (including Business Continuity Services) | ✓ Systems services |
| ✓ ROOTs | ✓ XNET - Execution and post-trading services to 18 other markets | ✓ Qualified Trust Services  
  (e-signature – PKI – Digital Certification) | ✓ Operational services |
| ✓ Pre-IPO and Listing Services | ✓ Regulatory Reporting and Reference Data Services | ✓ Axia e-Shareholders Meeting | ✓ Business services |
| ✓ Pre-IPO and Listing Services | ✓ Axia e-Shareholders Meeting | ✓ SRD II Premium Services | ✓ Consultancy services |
| ✓ Pre-IPO and Listing Services | ✓ SRD II Premium Services | | |

---

Athens Exchange Group
Pre-IPO Service for Fund Raising

Central Electronic Book Building

- For the **issuance of transferable securities** (shares, bonds) and the offer to investors, corporate issuers can make use of the **online application EBB** (Electronic Book Building) developed and offered by the ATHEX.

- The CEBB is a **secure electronic application** for collecting statements from interested investors to buy securities that an issuing company offers, for automated controls parameterization, for discovering the optimal value within a price range and for automatically distributing these securities to the accounts of investors.

- The Central Electronic Book Building **operates through the terminals of the ATHEX members** (Banking Institutions & Investment Services Firms).

- All ATHEX members have access in the EBB and through them to their clients.

- Straight-through-processing to the CSD accounts.

---

**Stage 1**

- Submission of the appropriate documentation

**Stage 2**

- Set up application with offer parameters

**Stage 3**

- Input of the participation requests

**Stage 4**

- Fund-raising completion

**Stage 5**

- Settlement and start of trading
Use of CEBB
Creating a Corporate Bonds Market

Bonds Listed on ATHEX Markets

Issued Amount (€ mil): 2,036.4
Current Amount (€ mil): 2,044.3

Evolution of Market Liquidity

A.D.T.V. (Organized Market, €ths) | A.D.T.V. (Alternative Market, €ths) | A.D.T.V. (Year Total, €ths)

Source: ATHEXGROUP, March 31st 2021
Pre-IPOs and Listing Services

**ROOTs - ATHEX SMEs Accelerator**

What is the Roots program?

Roots is a program offered by the Athens Stock Exchange in cooperation with the American-Hellenic Chamber of Commerce, designed to help innovative SMEs **accelerate their growth** and **access financing opportunities through the Greek capital market**, by mobilizing key players within its ecosystem.

Roots facilitates knowledge transfer and the sharing of best practices. The program combines mentoring and training opportunities with access to an international network of experts to **enable SMEs to reach the point of investment-readiness**.

### Selection
A high-level committee of international and local experts will select the companies and provide feedback to them throughout the program.

### Advisory
Companies will be matched with a Mentor and an Investment Advisor that will support them as they complete program deliverables and help them fine tune their strategy based on the needs of their organization.

### Capacity Building & Training
Companies will have access to training material, workshops and knowledge-based events modelled on global best practices.

Who is it for?

The Program is designed to support **innovative SMEs and startups** with:

- An **existing product or service**
- Backed by a **feasible business proposal**, with proof of concept
- With **scaling and growth potential**
- And an **attractive investment proposition**
Ancillary Services

Data Feed

- Data feed connectivity
- MiFID II transparency regime
- Access to a wide international network of vendors and sub-vendors

Indicative Data Vendors

KEY CONSIDERATIONS

✓ Increase number of vendors / sub-vendors
✓ Differentiate product for particular clients
✓ New product offering under MiFID II / MiFIR requirements
Ancillary Services

XNET - International markets reach

XNET is a combination of **infrastructure** and **services** which can effectively provide an efficient way for venues and products to be **visible** in the **ATHEX Group investment community**

- For order routing, settlement and custody on stocks & ETF’s. Bonds in particular markets are available only for settlement and custody
- Currently only for settlement and custody on stocks, ETF’s and bonds
Ancillary Services

XNET – A full portfolio of Services

- Xorder
  - Order routing to international markets

- Xsettle
  - Clearing & Risk management services

- Investor CSD
  - Full post-trading services

- Xinfo
  - International data feed services

- The service providers to the Participant

**ATHEX provides**
- Use of the **same trading infrastructure and processes** as for ATHEX / Common platform markets
- Order routing / trading solutions (web or API) -
- The **on-boarding procedure**
- Full support to participants
- End-of-Day (EoD) files

**ATHEX provides**
- Pre-order validation
- Risk management services
- Efficient and cost-effective settlement policy
- Use of the **same settlement process and systems** as for ATHEX / Common platform markets

**ATHEXCSD provides**
- Cross-border settlement via links to CSDs or Custodians
- Account opening and maintenance in ATHEXCSD for the Participant clients
- Settlement at end-beneficiary level in ATHEXCSD accounts
- Asset servicing
- Safekeeping services

**ATHEXCSD provides**
- Data Feed – Real time or delayed for 18 European and all US markets
- Choice of web services or API

---

**xNet - Trading Activity**

- xNet Average Trade Value QoQ (€ thous).
- xNet Average Trade Value YoY (€ thous).

- Q4 2012: 84.0
- Q3 2013: 184.9
- Q4 2014: 253.0
- Q3 2015: 254.5
- Q4 2016: 232.5
- Q3 2017: 234.0
- Q4 2018: 206.9
- Q3 2019: 281.6
- Q4 2020: 725.0
- Q3 2021: 281.6
- Q4 2021: 1,359.8
Ancillary Services

Regulatory & Reference Data Services

**Regulatory Services**

- **APA**
  - ATHEX Trade Publication Service
  - Has the status of Approved Publication Arrangement (APA) under MiFID II. The service is available for firms and Systematic Internalizers (SI) who are required to make their OTC trades public to the market. All trades are published on the ATHEX market data infrastructure.

- **ARM**
  - ATHEX Transaction Reporting Service
  - Has the status of Approved Reporting Mechanism (ARM) under MiFID II. The service allows transaction details to be reported effectively and efficiently to the relevant authorities.

- **ORK**
  - ATHEX Order Record Keeping Service
  - Is an obligatory service to the ATHEX Members by which they can meet the reporting requirements of the MiFID II.

**EMIR TR**

- ATHEX Trade Repository Service
  - For derivatives is provided by ATHEXClear for the submission of Transaction Reports under EMIR via 3rd party.

**SFTR**

- ATHEX Trade Repository Service
  - For securities Financing transactions reporting under SFTR via 3rd party.

**Reference Data Services**

- **ISIN**
  - ISIN and Ref data related Services

- **LEI**
  - Legal Entity Identifier Services
Ancillary Services
Axia e-shareholders meeting and SRD II services

Axia e-Shareholders Meetings
✓ Collection of votes;
✓ Assignment of proxies;
✓ Reconciliation of shareholders’ identification data as received from the intermediaries;
✓ Running of e-GMs; and
✓ Informing the participants of their votes’ being counted and recorded

Services to issuers
✓ **Daily registry services** offered by ATHEXCSD,
  - Identify beneficial owners directly from the segregated accounts and
  - Identify the omnibus account holders from the flagged omnibus accounts held at CSD level.
✓ Upon their request, for the **disclosure of shareholder’s identification** in accordance to SRD II (using ISO 20022 messages)
✓ Transmission of **Corporate Actions** announcements via the use ISO 15022 messages
✓ Transmission of **General Meeting** announcements via the use of ISO 20022 messages
IT & Facilities Management Services

Colocation/Proximity Services

- **Proximity Services** to Market Participants – Members
- **Colocation services** to Members and 3rd parties
- More than 25 Clients
- Clients will remain the Administrators of their **collocated** systems
- ATHEX Data Center is **ISO 27001 certified** for operation resilience
- **Suitable infrastructure** (racks for hardware at a highly available Data Center, networking equipment)
- **Secured facilities** (from extensive power backup systems to complete fire detection and suppression plans)
- **Highly redundant ATHEX Data Centers (DC1-DC2 & DRS)** in an active to active & Cold standby topology located at Athinon Ave, Disaster Recovery site (DRS) in a different seismic zone.

**Important Customers:**

- Banks, Investment Firms
- Market Data & Information Agents
- Other Infrastructures
- Telecom Providers
- Government Agents
IT & Facilities Management Services

Trust Services (Digital Signatures)

- ATHEX is a Qualified Certification Authority from 2002 according to Presidential Decree (PD) 150/2001 - now eIDAS compliant according to 910/2014 Regulation
- neXus s/w suite integrated with HSM & CoSign appliances from DocuSign
- Operates as a **Qualified Trusted Service Provider (QTSP)** according to 910/2014 Regulation offering:
  - Qualified Certificates
  - Timestamp Certificates
  - Web SSL Certificates
  - E-Seal Certificates
  - Qualified Certificates for PSD2
  - Digital Signatures for physical persons
    - **USB Token**
    - **Remote** Signatures via [ATHEX Sign Portal](#)
  - Web Sites Verification
  - Digital Signatures for Companies
  - Banks Open Finance

- **ATHEX Qualified Trusted Service Provider** is certified according to the following standards:
  - ISO 9001 – Quality Management System
  - ISO 27001 – Information Security Management System
  - ISO 22301 – Business Continuity Management System
Cultivating Partnerships

Provision of Platforms & Services

- Cooperation with other Market Operators & Financial Infrastructures with the goal of:
  - forging long-term strategic partnerships
  - creating synergies
  - strengthening the overall pool of liquidity
  - facilitating access to the markets operated by the respective partners.

- The Group is leveraging its technical & know-how and experience, its operational excellence, its efficient infrastructure and its cash-rich position to strengthen its international presence, focusing on the MENA & Eastern Europe region.
Cultivating Partnerships

The benefits

BENEFITS for participating partners

✓ **Network Externalities** for all markets included in the “Common Platform”
  - For the **Ecosystem of the Partners**: Additional markets for Members, Data Vendors, end-clients – New sources of revenue
  - For the **Partners**: Increased liquidity from cross-trading

✓ **Reduced IT infrastructure development and maintenance cost / Colocation in ATHEX Data centre**

✓ **Reduced Operational cost/ Business Continuity services**

✓ **Shared cost for new development and change requests**

✓ **Use of ATHEX expertise** - consultancy services, market operation experience, turnkey solutions

BENEFITS for ATHEXGroup

✓ **Shared Cost for Main Infrastructures (Trading, Clearing, CSD)**

✓ **Possibility of Packaging and Re-selling of other services**
  - Centralised Book Building, Data Feed, ARM/APA services, XNET services

✓ **Development of new assets/products/services following change request** - to be re-used in other markets / from other clients

✓ **New sources of clients – new opportunities**

✓ **Increasing source of revenue of contractual nature** (more steady and re-curring vs daily volumes)
Thank you!

Nikos Porfyris
Chief Post-Trading and International Business Development Officer

e-mail: N.Porfyris@athexgroup.gr

www.athexgroup.gr