USE OF ARTIFICIAL INTELLIGENCE and MACHINE LEARNING BY INTERMEDIARIES and ASSET MANAGERS

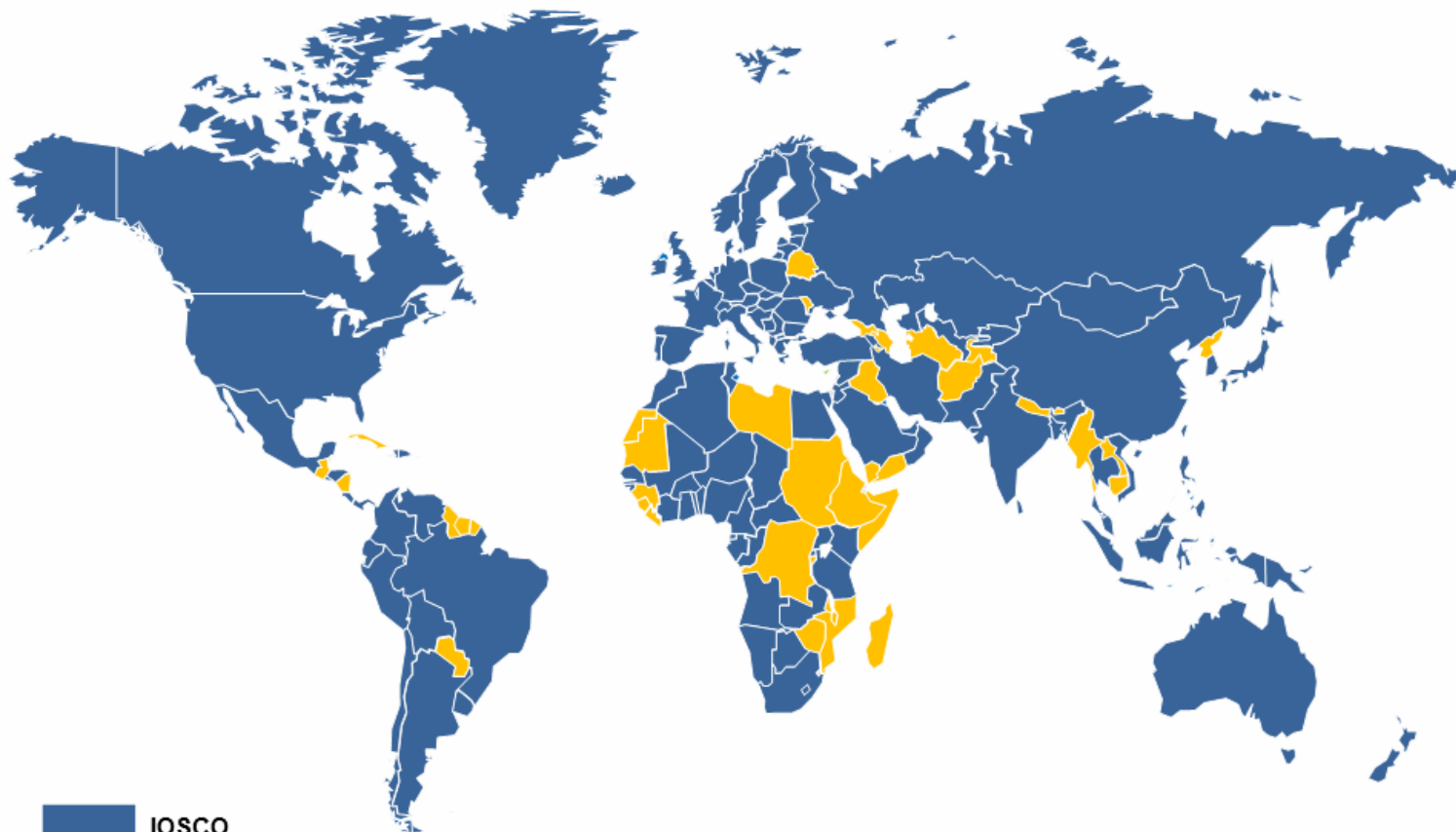**Sixth Meeting of the**
Arab Regional Fintech Working Group November 24-25, 2021
Artificial intelligence applications in the

financial sector

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Our membership regulates more than 95% of the world's securities markets in more than 130 jurisdictions and includes all the major emerging markets

CORE CHALLENGE for REGULATORS

How to foster a regulatory environment conducive to technological innovation while at the same time ensuring financial stability and investor protection.

IOSCO WORK on AI

- The need to be ahead of the curve

- Use of AI/ML in securities sector - a priority topic for IOSCO

- Joint Committee 3 – Committee 5 project

- A detailed guidance to assist IOSCO members in supervising firms' use of AI and ML

- Broader applicability to other market players

- Evolving nature of AI – Report to be reviewed in the future

WHY AI ?

- Increased regulatory compliance costs

- Use of AI frees up resources

- Helps firms to focus on more cognitive aspects

HOWEVER,

- The use of AI may change firm's risk profile

- Regulatory guidance and avoiding regulatory fragmentation will be essential

USE CASES in SECURITIES MARKETS

By market intermediaries:

- ➤ Advisory and support services

- ➤ Risk management

- ➤ Client identification and monitoring

- ➤ Selection of trading algorithm

- ➤ Asset management/ Portfolio management

USE CASES in SECURITIES MARKETS

By asset managers:

- ➢ Optimise portfolio management

- ➢ Complement human investment decision-making processes by suggesting investment recommendations

- ➢ Improve internal research capabilities, as well as back-office functions

- ➢ Order execution

- ➢ Broker selection and order routing purposes (including through methods such as algo-wheels)

RISKS in USE OF AI

- Governance and oversight

- Algorithm development, testing and ongoing monitoring

- Data quality and bias

- Transparency and explainability

- Outsourcing

- Ethical concerns

THEMES THAT UNDERPIN GOOD ETHICS IN AI

- **Beneficence – "do good"**

- **Non-malfeasance – "do no harm"**

- **Human autonomy, including auditability**

- **Justice - Accountability and transparency**

- **Explainability**

MITIGANTS OF AI RISKS AT THE FIRM LEVEL

- Culture

- Accountability

- Knowledge/expertise/skills

- Operational resilience

- Client disclosures

IOSCO GUIDANCE

- Objective: Assisting IOSCO members in supervising use of AI

- Proportionality in application

- Regulatory initiatives around the world (by NCAs and IOs)

IOSCO GUIDANCE – SIX CORE PRINCIPLES

- Governance and oversight

- Algorithm development, testing and ongoing monitoring

- Adequate skills, expertise and experience

- Outsourcing

- Disclosure on the use of AI

- Data quality (Ethical concerns and bias)

Thank you