Digital Sandbox for Open Data and Banking
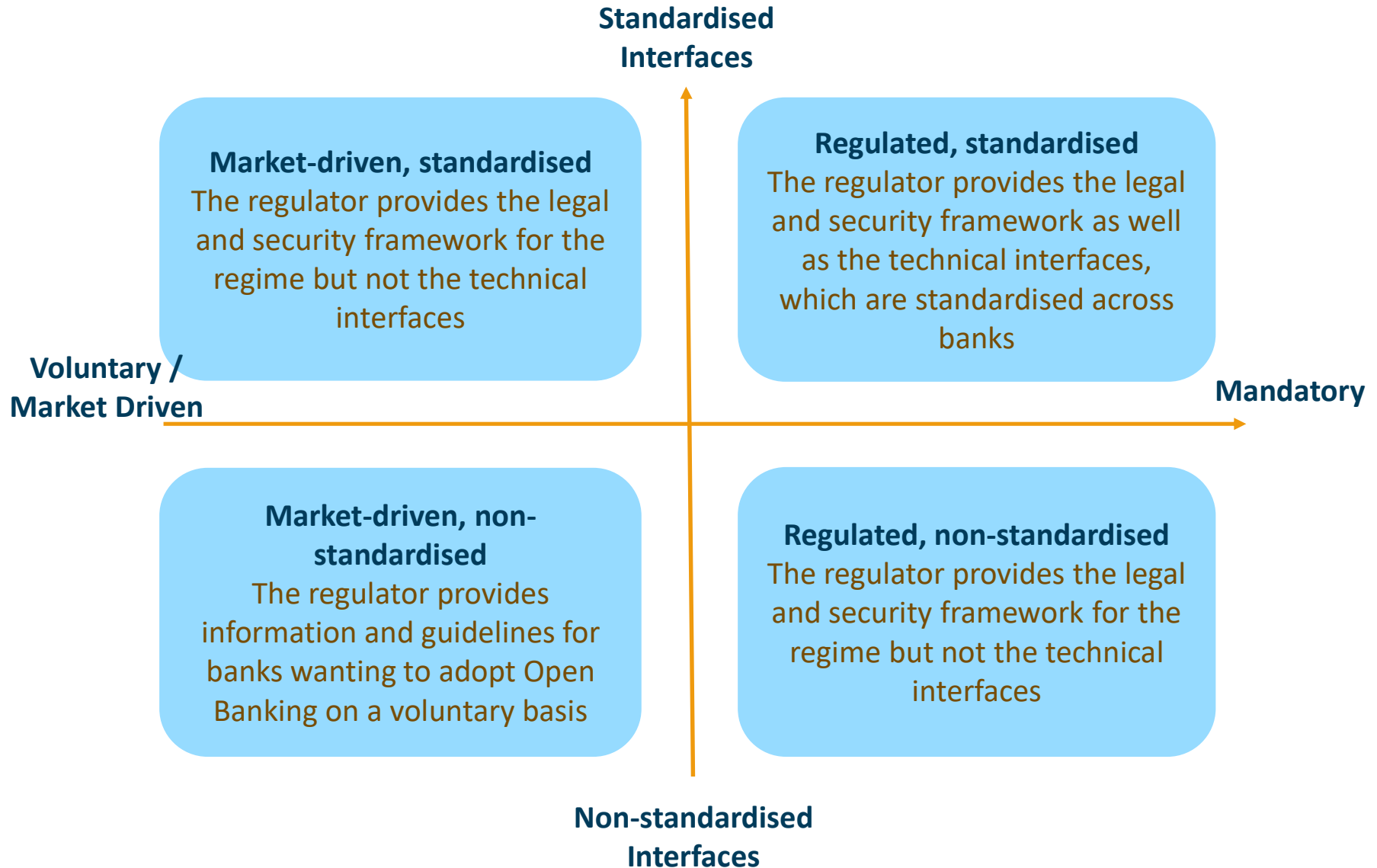
23 June 2019

Fostering FinTech Innovation

Fostering the adoption of innovative technology forms part of ADGM's wider objective to <u>encourage best practices and raise industry standards in the financial sector</u>.

- **Setting robust policy and regulation** for financial services to ensure that new technologies are used in a safe and responsible manner.
  - **Open Data / Banking regime is a key enabler**

- **Engaging financial institutions** to identify key compliance issues affecting the industry, and **mobilising technology developers** by calling for innovative solutions in a structured systematic way.
  - **Digital sandboxing provides a collaborative way to experiment and accelerate Open Data / Banking**

Regulatory approach to Open Data / Banking

Standardised Interfaces

Voluntary / Market Driven

Mandatory

Market-driven, standardised
The regulator provides the legal and security framework for the regime but not the technical interfaces

Regulated, standardised
The regulator provides the legal and security framework as well as the technical interfaces, which are standardised across banks

Market-driven, non-standardised
The regulator provides information and guidelines for banks wanting to adopt Open Banking on a voluntary basis

Regulated, non-standardised
The regulator provides the legal and security framework for the regime but not the technical interfaces

Non-standardised Interfaces

ADGM approach to Open Data / Banking

Financial markets are pooling and transmitting <u>ever-increasing amounts of data</u>. Governance across various aspects of data need to be in place.

Background

- Incumbents, startups and large technology providers are harvesting, processing, storing and exchanging <u>ever-increasing amounts of **data**</u>.
- Ensuring the right <u>confidentiality, security and integrity of this data</u> is crucial for well-functioning financial markets.
- The Digital Sandbox is our way of <u>experimenting on the development of an appropriate framework</u> to regulate Open Data / Banking while fostering innovation.

Security

- General tech gov requirements
- Oauth 2.0 for APIs
- Cloud: ISO 27017 on security controls
- Private/Public key management for tokenized assets

Messaging

- Voluntary standards
- 'Grammar'-based
- RESTful APIs
- Standards are pre-req to onboard to Digital SB
- Documentation requirements
- Ensure inter-operability

Storage

- BCP and usual tech gov reqs apply
- Cloud Guidance
- Must have/provide access to data on demand
- Tier 3 data centre minimum
- Off-site backups for critical services

Confidentiality

- Data Protection rules
- Client consent-based
- Right to be forgotten
- Balance with AML & FATF requirements
- Homomorphic encryption for data sharing (TechSprint)

Need for standardization of APIs

APIs are not new. However, the concept of a market structuring them in the same way to share data will cause a paradigm shift in financial services.

Risks

- Diverging standards
- Lack of documentation
- Cybersecurity
- Data privacy
- Customer protection
- Liability

ADGM API Standards

- Only regulated entities gain access
- Two factor authentication
- Certification of APIs and Third Party Service Providers
- Central depository for compliant APIs
- Uniform methods for documentation

Digital Sandboxing ➔ robust Open Data landscape

The ADGM Digital Sandbox gives us a way to engage directly with the new Open Data culture, and steer it in the right direction

Digital Sandbox

- Firms cannot onboard unless they meet requirements

- Firms gain opportunity to collaborate with regulator, and with other players

- Global best practice standards

Robust FS Data Landscape

- Fosters a best practices-based approach to gathering, storing and processing data

- Allows incumbents to meet startups and BigTech in a consistent and secure manner

- Encourages responsible growth and development of products and markets

ADGM Digital Sandbox

Supporting the testing and discussion of new solutions in a controlled, cloud-based and API-enabled digital environment
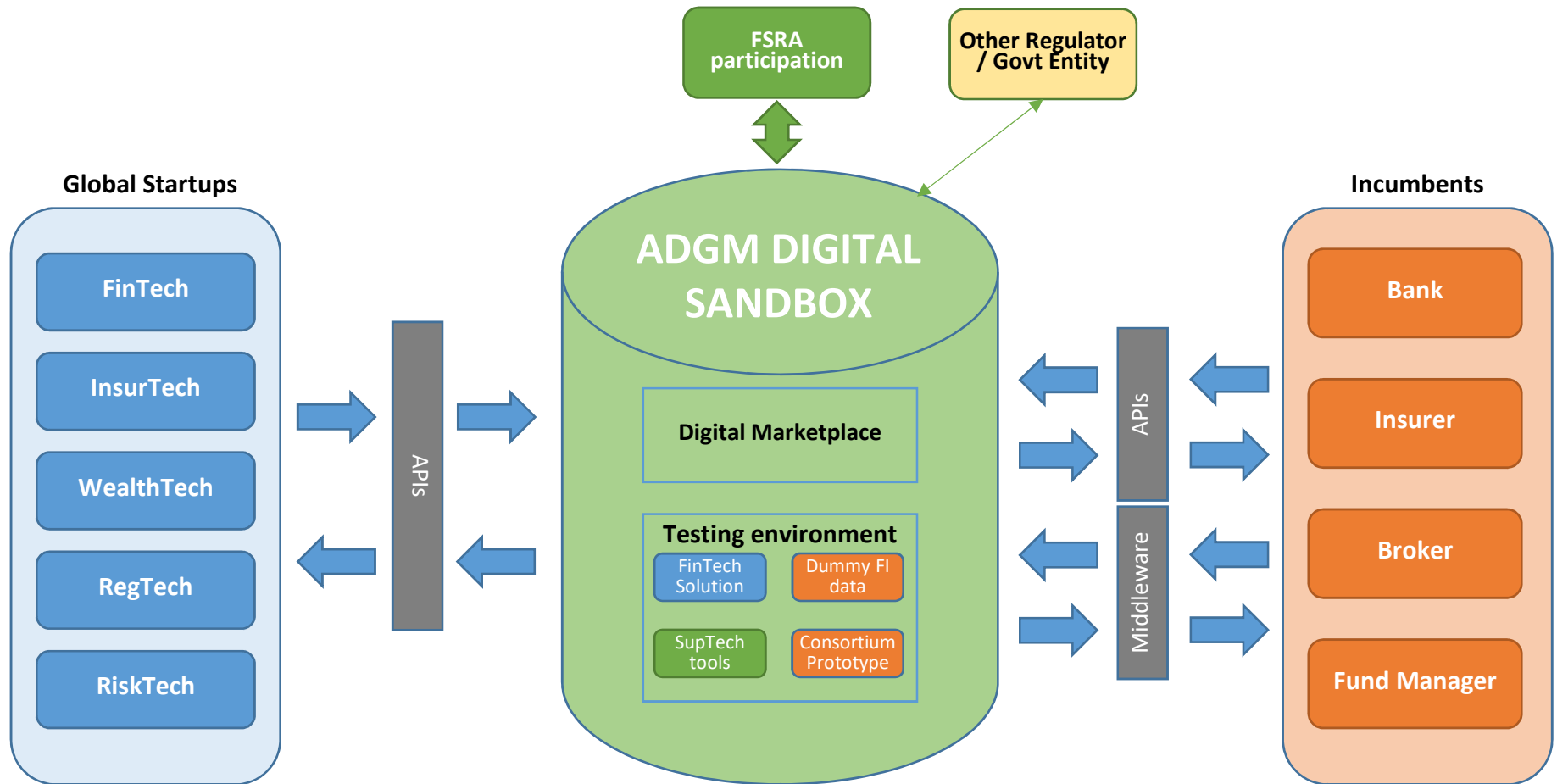
API Use Case: Singapore and ADGM

Regulators with digital sandboxes can connect entities in respective jurisdictions via APIs

1. *A bank in the Middle East is able to finance a trade transaction between a buyer in the region and a seller in Singapore.*

2. *The Bank on-boards the seller using the FinTech solutions available on APIX, retrieves and validates the invoice documents from the National Trade Platform of Singapore (NTPS).*

3. *Bank disburses the financing via a payment system in Singapore. All of these enabled in a digital and secure environment.*

API Use Case: The Trade Finance Flow

Abu Dhabi

Singapore

AGTB asks the Singapore SME to upload all relevant KYC documents into the Signzy app

Signzy calls the ARCA API to verify the relevant documents

AGTB Trade Finance Platform

ANGLO-GULF TRADE BANK

ADGM Platform

ABU DHABI GLOBAL MARKET
سوق أبوظبي العالمي

AGTB initiates financing to the seller via the NETS API

SIGNZY
eKYC FinTech

ACRA

APIX

ACRA verifies the information and passes the response back to AGTB via its API

NETS payments

NETS

Singapore seller

The seller uploads the invoice into NTP

NTP
Networked Trade Platform

NTP confirms the invoice and the buyer