



WORLD BANK GROUP
Finance, Competitiveness & Innovation

Sandboxes: A Regulatory Approach to Fintech

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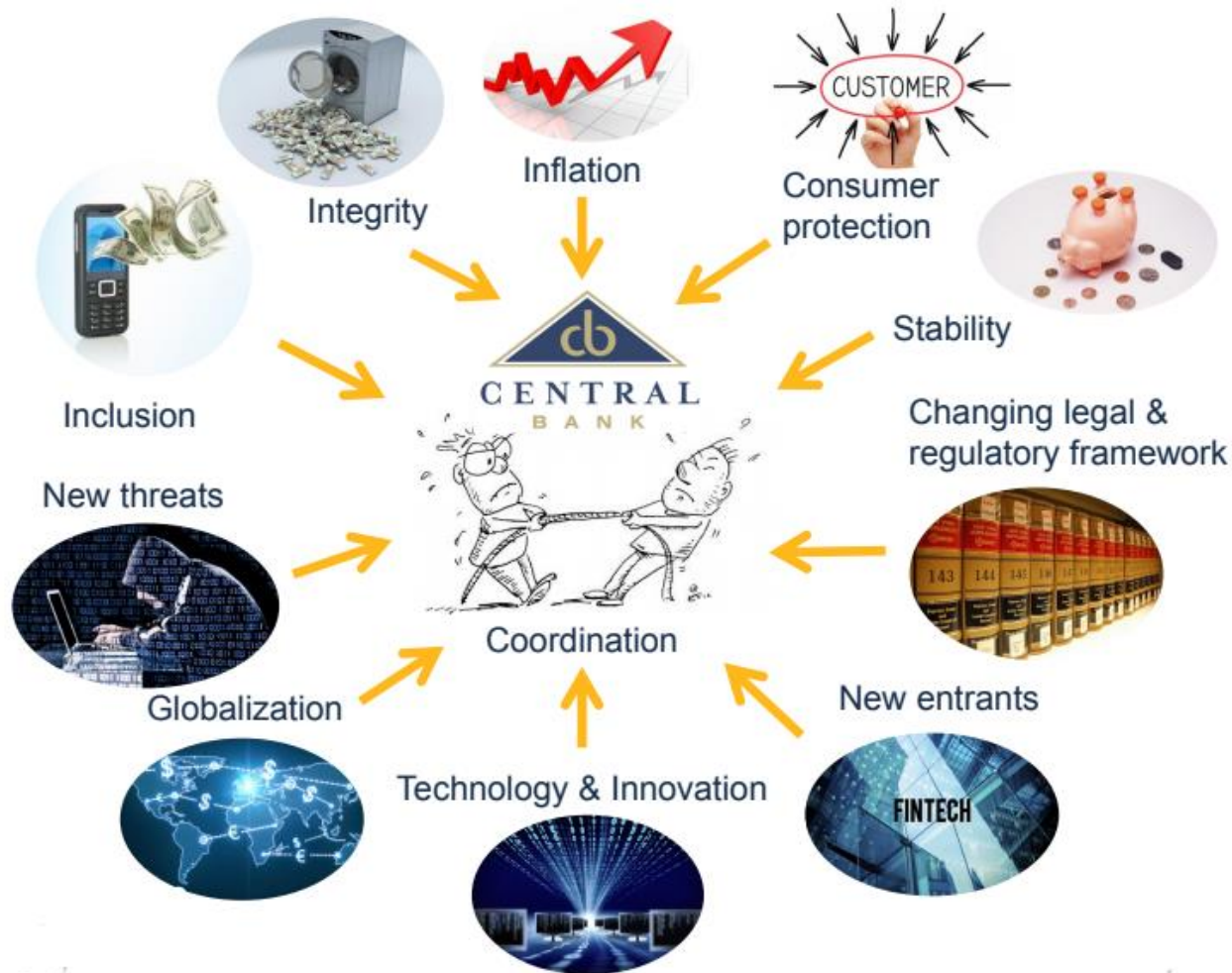
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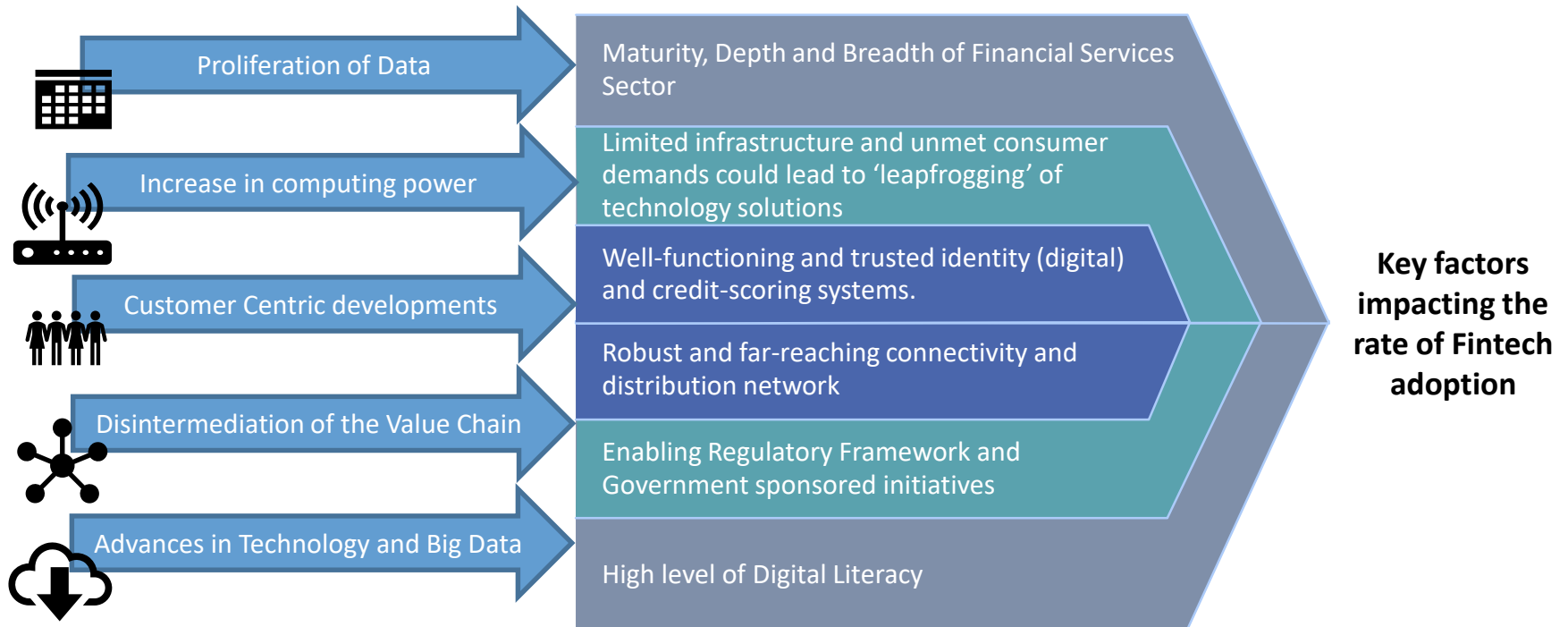
Overview

1. Factors impacting Fintech Adoption
2. Common structures for oversight of Fintech
3. Sandboxes
 - UK FCA Sandbox
 - A typical sandbox lifecycle
 - Lessons learned
 - Risks vs Benefits
4. Other Regulatory tools to enable innovation
5. Conclusions & Next Steps

The Importance of Adaption is Increasing



Factors impacting Fintech Adoption



Risks vs Benefits

Leveraging the digital opportunity does not come without challenges

- Potential Risks to **financial stability, integrity** and **consumer protection**
- **Trade-off between policy objectives:** How to reach the appropriate balance?

Challenges

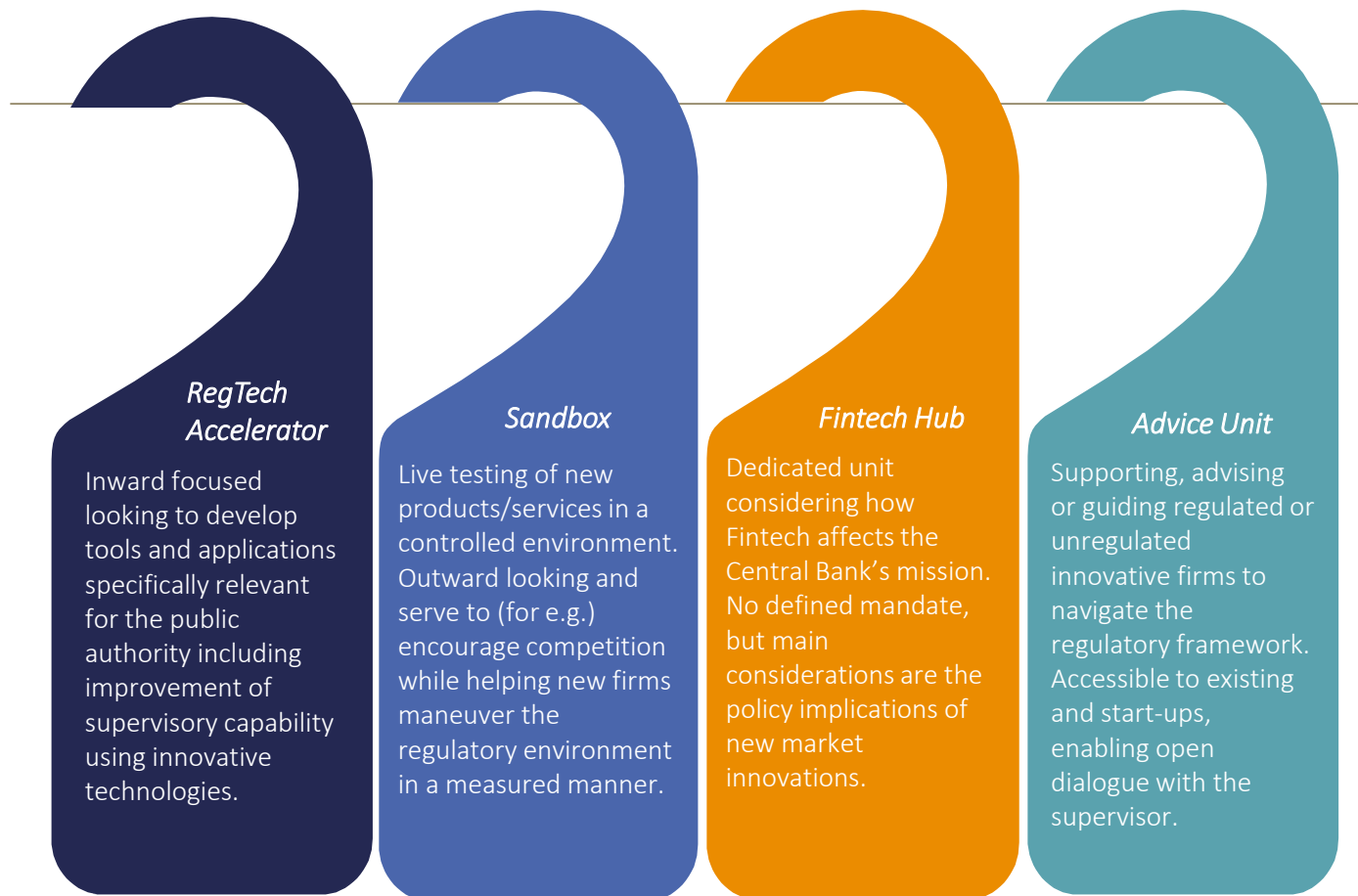
Ensuring
control of
potential risks

Financial
Inclusion

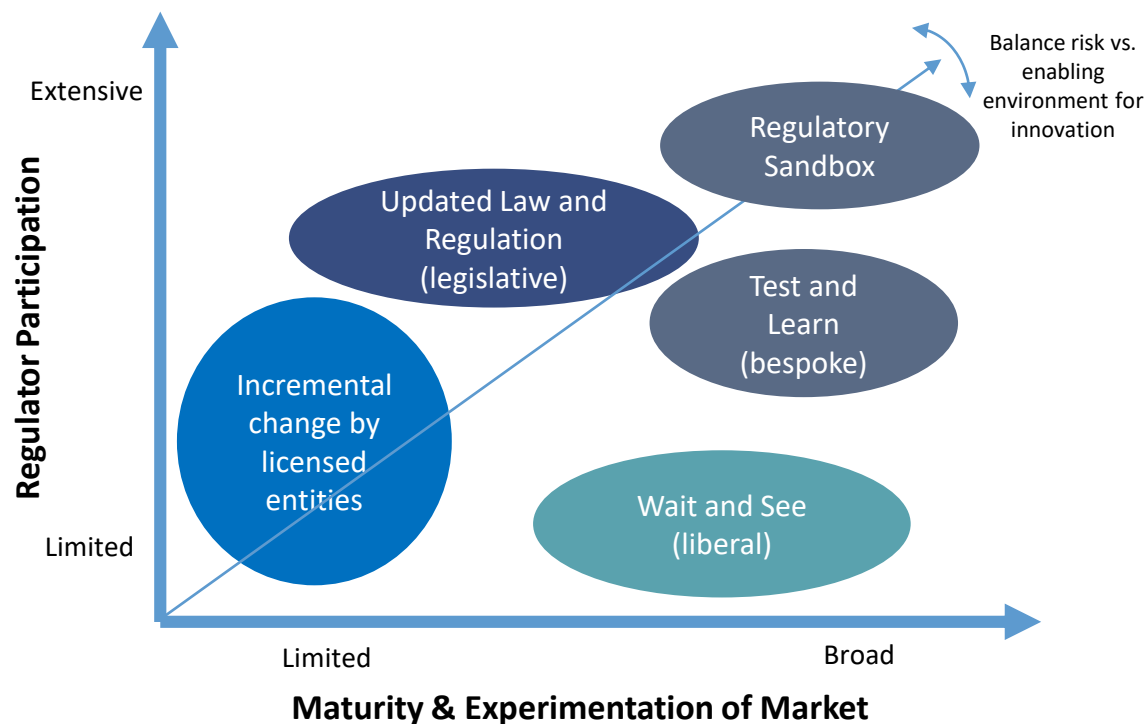
(new better and
more affordable
Financial
Services)

- **Game-changer:** exponential technologies (internet connectivity, mobile, cloud)
- **Expand and enhance offerings**
- **Reduce the cost** of serving the bottom of the pyramid
- **Improve convenience:** collection and analysis of data for enhanced customization.

Structures for the oversight of Fintech



Regulatory Tools to Enable innovation



Wait-and-See: Monitoring a Trend to understand it better before any intervention

Test-and-learn: Custom framework to test a new idea in a live environment

Regulatory Sandbox: live, time-bound testing of innovations under a regulator's oversight.

Regulatory Reform: Reform Existing policy and regulation to allow for new licensing of innovations

What is a Regulatory Sandbox?

Virtual environment for innovators (existing and start-ups) to **test new ideas** with **real customers**

Can be open to **authorized** and **unauthorized** businesses and technology providers as based on specific '**Eligibility Criteria**'

Allows the regulator to **oversee trials** using a customized regulatory environment for each pilot

Provides **intelligence** on developments, trends and emerging risks

It is NOT about exemptions from extant laws and regulations



Important to define the *Objective*

It is vital that countries can actively define the objective for why they want to create a sandbox. e.g.:

- Is it to improve their supervisory or other (technical) capabilities?
- It could even be used to review their regulatory framework?
- Or maybe, like the FCA, they want to stimulate competition in the market;
- Another reason could be bridging a gap in the current financial services provisions of the country;
- Or there could be an overarching objective to enhance financial inclusion or increasing financial stability (*implemented by attracting solutions directly relevant to these objectives only*)
- Sometimes, the objective could also be to attract talent and investment from sources outside the country.

FCA Objectives

Strategic Objective of **ensuring** that the relevant **markets function well**



To secure an appropriate degree of **protection** for consumers

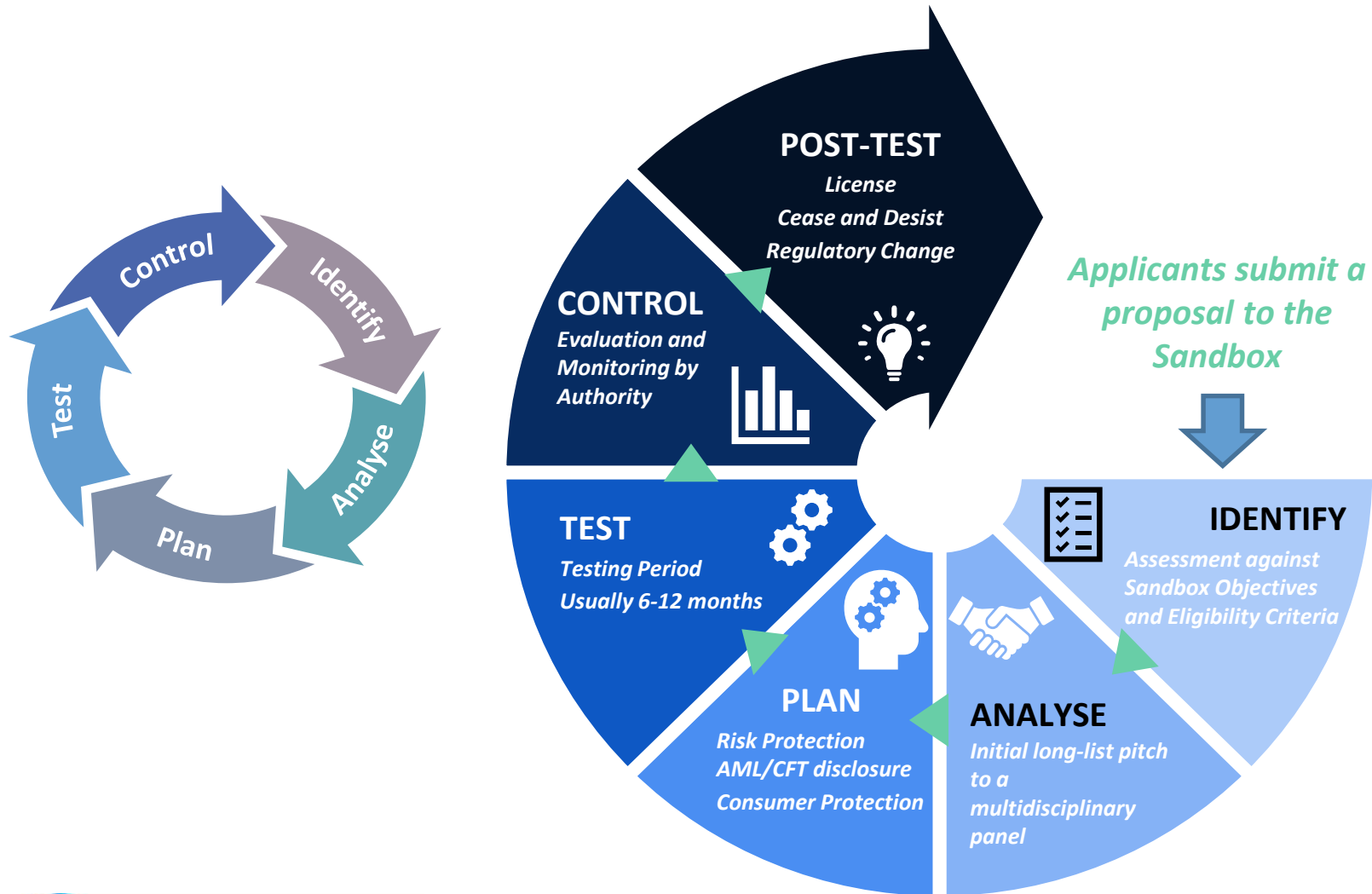


To protect and enhance **the** integrity of the **UK** financial system



Promote **effective** competition in the interests of consumers

Typical Sandbox Lifecycle



FCA Case study: Payments firm

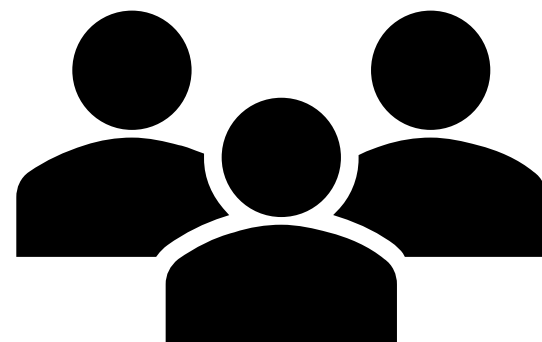
Focus: making cross-border money transfers **cheaper, faster or easier** using digital currencies

Test:

- Full application for authorization as small payments institution with a limit of 50 customers
- Additional capital buffer to cover 100% of consumer funds
- Disclosures to consumers in test were reviewed by FCA
- 6 remittance transactions carried out, ranging from £5k - £25k

Conclusions

- Overall objective of business model met
- Transactions settled within minutes for most consumers
- Cost of transactions 4.4% lower than market rates
- Firm reassessed by 'Authorizations Team' after 1 year and restrictions lifted



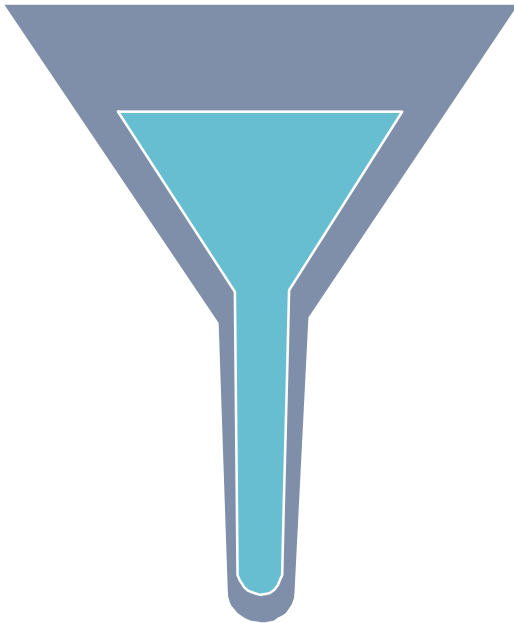
Lessons Learned

A range of innovations sandbox-tested

Total number of applications: **276**

Those that met eligibility criteria: **105**

Admitted to sandbox: **81** (cohorts 1-4)



Sector breakdown relating to the product/service conducted through sandbox test:

- General insurance and protection
- Investment Management
- Pension and Retirement Income
- retail banking (of which 15 Payments/e-money firms)
- retail investments (of which 3 P2P platforms or aggregators)
- wholesale firms (of which 3 are Payments/e-money firms in wholesale space)

Technology used

- DLT
- Robo-advice platforms
- Biometrics
- APIs

... But there are also some limitations to testing

- Meeting **FCA conditions** for authorization.
- Access to consumer **data and API integration**
- Access to **banking services**
- **On-boarding** of start-ups by large firms
- Need to abide to certain **EU requirements**



Benefits



Reducing the time and cost of getting innovative ideas to market



Facilitating greater access to finance for innovators



Enabling products to be tested



Working to ensure appropriate consumer protection safeguards are built in



Introducing greater competition to the market



Benefits for regulator include improved visibility of sector and better risk management of new technologies

Potential Risks

CAPACITY

- Limited regulatory capacity- Resources, staff, expertise.
- May require institutional assistance/support from multi-lateral development banks.

COORDINATION

- Coordination issues where there are different authorities with financial supervisory powers.

NEW PRODUCTS

- Risks associated with new products and services.
- May be hard to assess before product/service is fully launched.

Financial Inclusion creates Opportunity

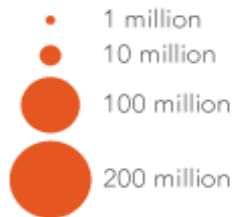


Advances in financial technology (fintech) hold the key to achieving the World Bank goal of Universal Financial Access by 2020

Two-thirds of unbanked adults have a mobile phone

Adults without an account owning a mobile phone, 2017

1.1 billion unbanked adults have a mobile phone



In the developing world, 71% of unbanked men have a mobile phone, against 61% of unbanked women

Sources: Global Findex database; Gallup World Poll 2017.

Note: Data are not displayed for economies where the share of adults without an account is 5 percent or less.

Leveraging Sandboxes for Inclusion

Three ways to make financial inclusion an integral part of the sandbox

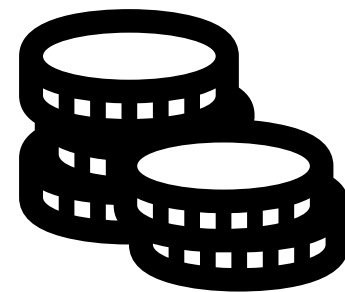
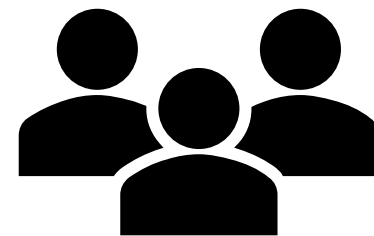


To date, only very few regulatory sandboxes have stated financial inclusion objectives: e.g.: Malaysia and Bahrain.

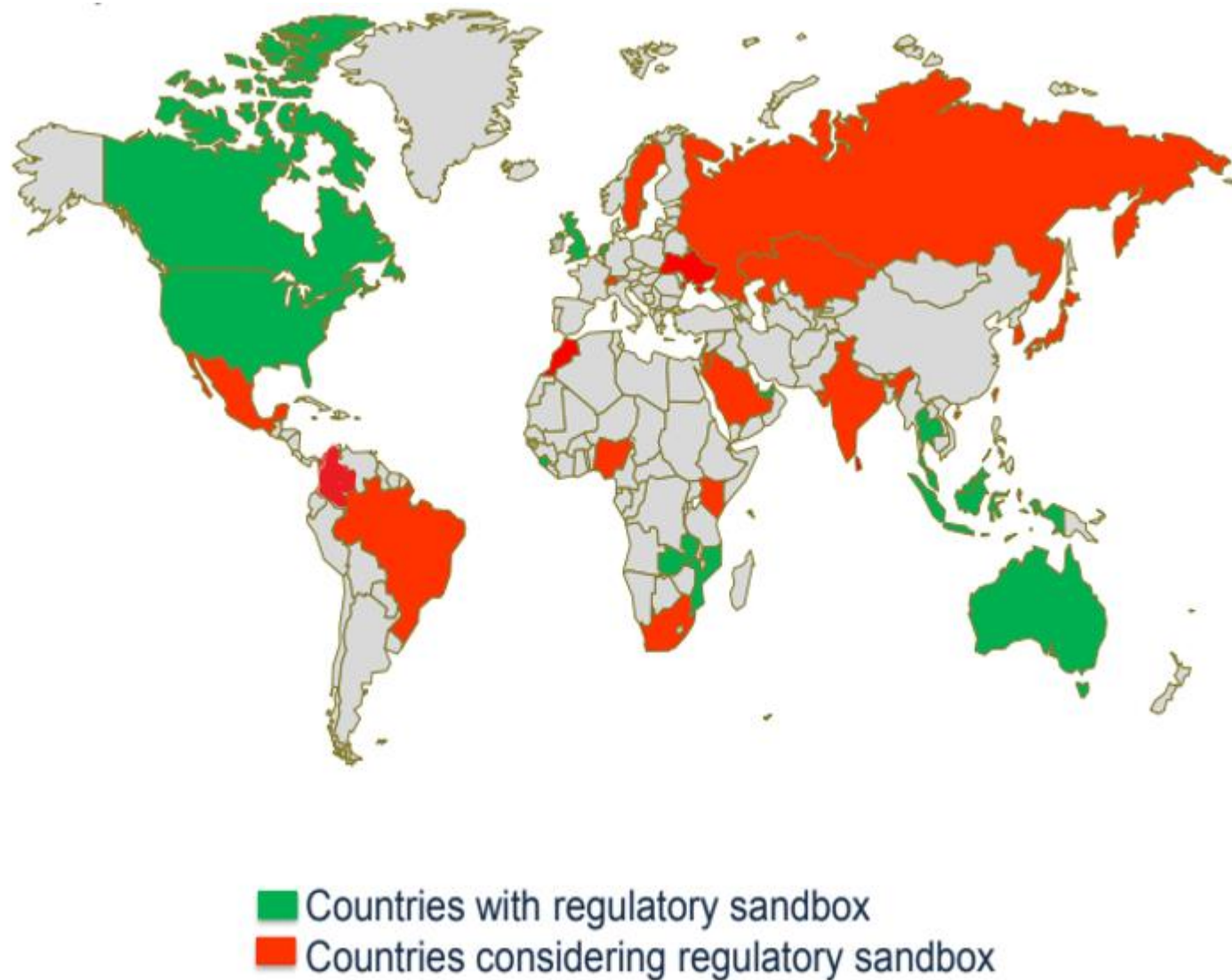
Malaysia Case study: Remittances Firm

- World Remit, a UK-based FinTech remittance company mainly serving emerging markets, was admitted in Bank Negara Malaysia (BNM)'s regulatory sandbox
- As part of the sandbox, World Remit was interested in testing its online KYC process, even though Malaysian law required conducting KYC checks in person
- The sandbox allowed WorldRemit to work in a controlled environment and show BNM how it works so that they could get confidence in the online KYC process. The testing was successful and well received by customers
- As a result of the tests performed by World Remit in the sandbox, ***Bank Negara Malaysia is currently working on draft regulation to allow online KYC checks***

Provides a good example of a regulatory sandbox facilitating innovation and benefiting financial inclusion



Regulatory Sandboxes around the World



Forms of Sandbox models

Main aim to promote competition;
Conducted in a structured framework using cohorts;
Open to those conducting regulated activities or interact with regulated activities

Example: UK

Regulatory sandbox is tool of last choice;
Open to all innovation

Example: Singapore

Coordination with Industry/academia, utilizing the available infrastructure.

Example: MAS, IFC and ASEAN Bankers Association (ABA)

Disrupter within the Central Bank; Only open to regulated entities

Example: Hong Kong

Single point of contact providing advice to firms;
Form a coordinated body with different public authorities to understand regulatory changes needed.

Example: Estonia

Requisites

- Well articulated **objective** for the Sandbox;
- Clear **eligibility criteria**;
- Articulated **governance arrangements** and lines of responsibility within the regulatory body;
- **Case-by-case rules** for each FinTech firm/business proposal, rather than a one-size-fits-all approach;
- **Limits** on the number of customers, testing for a limited time period, and safeguards for consumer protection (such as requirements to obtain informed consent); Less stringent capital requirements should also be mentioned;
- **Proportionate** requirements, restricted authorization/licensing, individual guidance, waivers/modifications to rules for that project, and no enforcement action letters.
- Measures of success- **define what does success look like** clearly tied to objectives;
- **Regular milestones** and feasibility checks;
- Feasible **exit strategy**.

Regulatory Tools

WAIT & SEE



Allows innovations to develop with **no restrictions**

- May work well in environments with limited regulatory capacity
- **Presents significant risk** if not controlled later through regulations
- **Example: China**

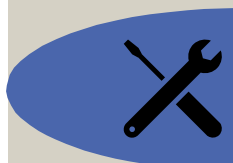
TEST & LEARN



New innovations tested in a live environment with involvement from the regulators

- **Case-by-case basis**
- Requires **active involvement** by regulator
- **Difficult to scale up**; hard to ensure equal treatment
- **Examples: Philippines, Tanzania**

REGULATORY SANDBOX



Virtual Environment where innovators can **test** their products/services in a time bound manner.

- **Greater transparency** and **replicability**
- Relevant for markets with good supervisory capacity and high level of active, potentially non-licensed players

WAIVER/ EXEMPTIONS



Waiver or exemption from a license or restrictive sections of a license

- usually codified in law, therefore no need for subjective decisions from the regulator
- No special resources for maintenance are required

LETTERS OF NO-OBJECTION



legal **certificate** issued by the authority to indicate that it does not object the product or services provided by the fintech entity.

Relevant for smaller markets, when the risk profile of the innovations are generally well-understood.

Example: Kenya

DIFFERENTIATED REGULATION



Usually codified in law, therefore no need for subjective decisions from the regulator

No special resources for maintenance are required

REGULATORY REFORM/LAW



Enactment of regulations that support FinTech startups and consumer protection, competition, financial stability and financial inclusion

- Modifications to existing regulations
- **Examples: EU (PSD2, GDPR), Mexico (FinTech Law)**

One Tool Among Others

	Wait and See (liberal)	Test-and-Learn (bespoke)	Licenses (legislative)	Regulatory Sandbox
A Structured and defined process to deal with innovations			✓	✓
A Permanent Framework			✓	✓
Implementation driven by defined objectives			✓	✓
Open Access (objective and transparent criteria to determine access)			✓	✓
Parameterized test (restrictions and safeguards in place)		✓		✓
Mutual Learning between the regulator and Innovators		✓		✓

Factors that affect decision-making

Legal & Regulatory Framework

- How well established is the regulatory and legal framework?
- What is the level of complexity?

FinTech and Stakeholder Ecosystem

- How many regulators oversee financial supervision?
- How well developed is the FinTech ecosystem?

Capacity & Resources

- How much resources does the regulator have available?

Market Conditions

- How competitive is the market?
- Number of excluded / underserved?
- Number and types of financial institutions?

Risks in Regulating FinTech

- **Regulatory perimeter:** Narrow or overlapping regulatory perimeters issues may affect the ability for authorities to monitor FinTech developments- restricting innovation and complicating oversight. Moreover, the Cross-border nature of lending, trading and payment transactions can raise questions about the cross-jurisdictional compatibility of national legal frameworks.
- **Market Confidence, Data Protection and Ethics:** Oversight and regulation of algorithms underlying FinTech innovations may be needed to build confidence in the systems that rely on them.
- **Operational risks.** Third-party service providers to financial institutions are quickly becoming more prominent and critical, especially in the areas of cloud computing and data services.
- **Macro-financial risks.** Systemic importance and procyclicality could emerge from a number of sources, including from greater concentration in some market segments.
- **Consumer protection.** Inclusion brings new, inexperienced customers, who may be onboarded without direct interaction; need for responsible finance standards. Products and services are gathering more and more data raising issues of privacy, accuracy and recourse.

Concluding Notes

Developing an Innovation-Supportive Regulatory Strategy

Key Challenges

- New entrants providing financial services but don't fit an entity-based regulatory structure
- New products don't clearly map to rules/regulators
- Regulated institutions seeking to adopt new technologies that regulations don't cover or supervisors are not equipped to assess and monitor

Goals

- Ensure financial stability and integrity
- Encourage and accommodate innovation (for efficiency, inclusion)
- Protect Consumers
- Foster competition

Emerging Regulatory Principles

1. No one size fits all;
2. There are a number of regulatory approaches to enabling fintech dependent on the appetite of the regulator and the maturity of the market;
3. Apply existing structures first; distill to the essential activities and strive for definitional clarity to determine which regulator covers the hybrids and new combinations
4. Activity based, entity neutral (same opportunity to innovate as a bank or as a fintech)
5. Principles based approach, applied at the granular level of fundamental basis for regulation
6. Tech neutral: As long as it meets standards for security, privacy, robustness, we shouldn't care what specific technology is used underneath

Further References

- RegTech Lab 2018. *“Thinking Inside The Sandbox”*
- CGAP. 2017. *“Regulatory Sandboxes and Financial Inclusion.”*
- BCBS (Basel Committee for Banking Supervision). 2017. *“Sound Practices: Implications of fintech developments for banks and bank supervisors.”*
- FSB (Financial Stability Board). 2017. *“Financial Stability Implications from FinTech: Supervisory and Regulatory Issues that Merit Authorities’ Attention.”*