

Regulatory Sandboxes Digital ID's

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What is the Core of Our Business?

Security:
Data Oracles with Proof of Authenticity

1. Mathematically prove where data came from
2. Mathematically prove authenticity of data

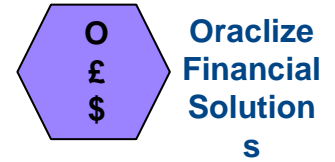
BYOB: BE YOUR OWN BANK

I want to make prompt, low cost, secure payments



- 1 Here is my eID
- 2 eID verified
- 3 Please pay XYZ
- 4 DONE!

I am a smart contract. I live on the blockchain



Forms of eID



What is my future role?



Ethereum public blockchain
(distributed record-keeping,
almost real-time settlement)

Why do you want to do this?

To build a business and make a profit

BUT ALSO...
(The Economist's Explanation)

**Innovation = Increase in Productivity = GDP
Growth**

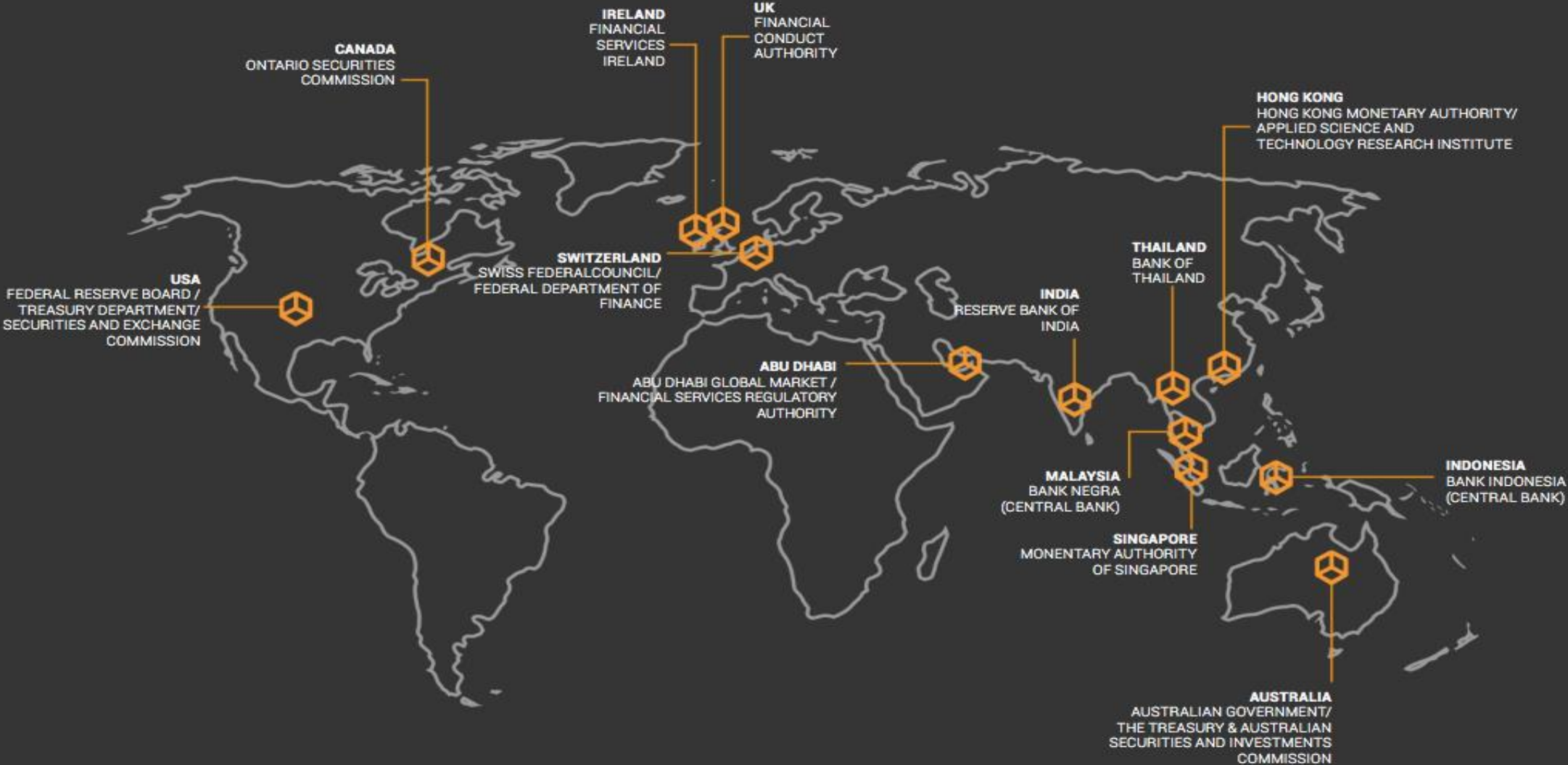
Innovation is vital for the growth of an Economy

How to do this in the real world?

Enter Another Innovation: The Regulatory Sandbox



MAP OF EMERGING AND ESTABLISHED REGULATORY SANDBOXES



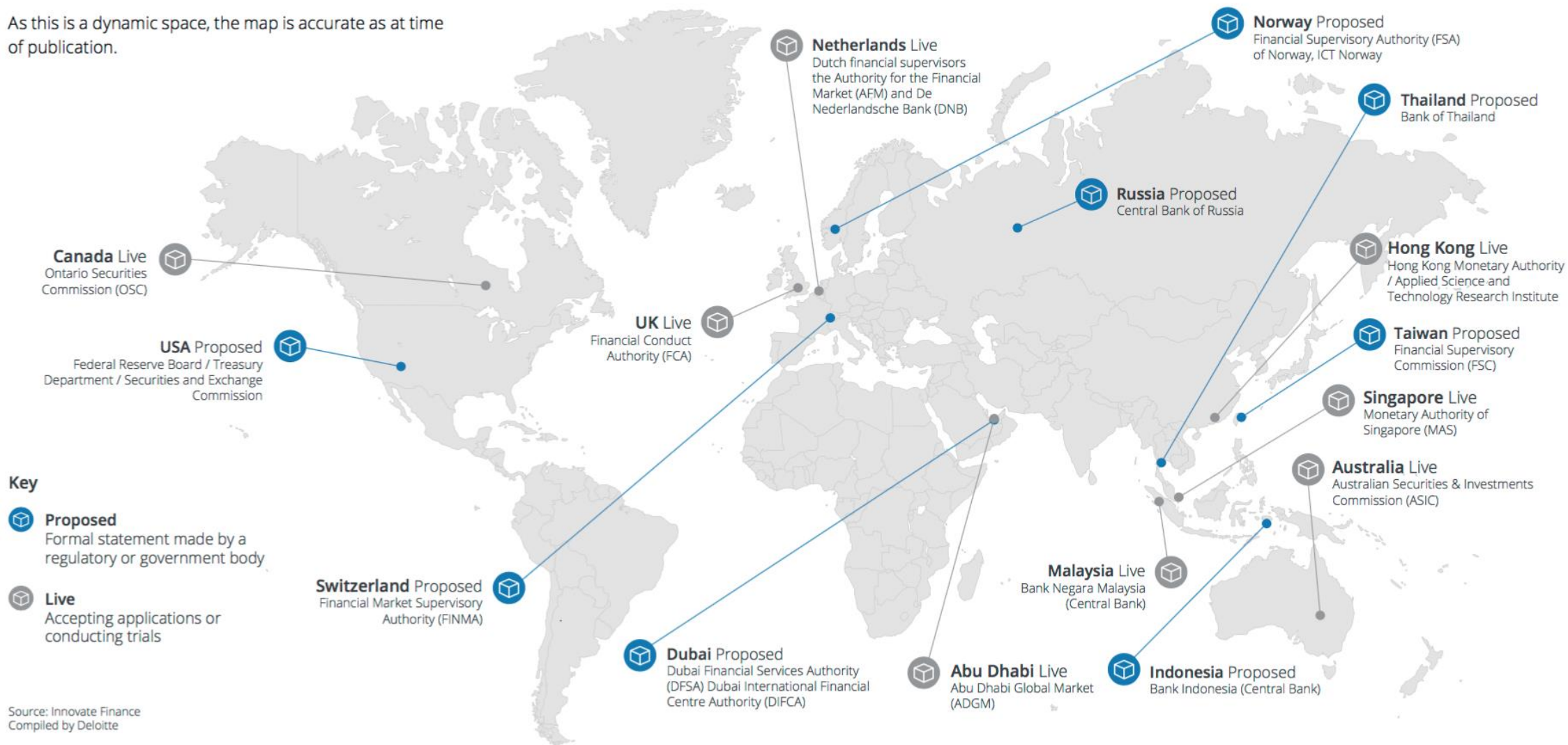
Source: Innovate Finance Analysis, accurate as at November 2016

Map of regulatory sandboxes

A regulatory sandbox is a regulator-driven initiative which allows businesses to test innovative products, services, business models and delivery mechanisms in a live environment. Typically, some regulatory requirements are amended to create a bespoke framework for the duration of an on-market trial.

The map below shows all live and proposed regulatory sandboxes (and similar regulatory initiatives). Proposed sandboxes are ones on which a formal statement has been made by a regulatory or government body. Live sandboxes are ones which have already begun accepting applications or conducting trials.

As this is a dynamic space, the map is accurate as at time of publication.



Experience with the Financial Conduct Authority

“The regulatory sandbox allows businesses to test innovative products, services, business models and delivery mechanisms in a live environment.”

Some of the Tools in the Sandbox:

- Restricted authorization
- Individual guidance
- Waivers or modifications to our rules
- No enforcement action letters

FCA Regulatory Sandbox Cohort 1

- Applications closed 8 July 2016
- Received 69 applications
- Accepted 24 companies
- Both multinational players and early stage start-ups

- 6 out of the 24 not ready to start and postponed
- Remaining 18 expected to complete testing by end of April 2017

FCA Regulatory Sandbox Cohort 1

	Description	Number of companies
Non-blockchain	Various (see next slide)	9
Blockchain	Blockchain subtotal	9
	<i>Money transfer via bitcoin</i>	2
	<i>Payment using smart contracts</i>	2
	<i>Other payments</i>	2
	<i>Non-payments (voting, etc.)</i>	3
TOTAL		18

FCA Regulatory Sandbox Cohort 1 (non-blockchain)

- Robo-advisory for comparing debt solutions
- Single-dashboard for managing multiple financial products from multiple providers
- IPO distribution platform
- Aligning in-branch banking experience with online and phone experience
- Travel and property insurance products
- Micro-savings apps

FCA Cohort 1: Lesson 1

Now we know how to do sandboxes!

FCA Cohort 1: Lesson 2

Is new regulation necessary for financial products that use distributed ledgers (i.e. blockchains)?

Consultations started recently

Current Indication:

No Need for New Regulation

FCA Regulatory Sandbox Cohort 2

- Applications closed 19 January 2017
- Received 77 applications
- Accepted 31 companies
- Companies to be announced after UK parliamentary elections (after 8 June 2017)

Initial Lessons from Cohort 2

- **Application process was more rigorous than Cohort 1**
- **Quality of applications higher than Cohort 1**

FCA Regulatory Sandbox Cohort 3

- “Cohort 3 of the sandbox will open for applications in June, and remain open until late July.” 2017

Moving on to Digital ID...

What is a digital ID?

International digital ID

Estonian E-residency



“qualifies as an e-signature under EU Directive 1999/93/EC, E-SIGN law (15 USC 96) in the US and similar laws in other countries.”

Source: <https://e-estonia.com/e-residents/services-and-benefits/>

National ID

UK VERIFY ID



German eID (NFC enabled)



Belgian eID



Singapore



Other forms of digital ID

**Social Media
Accounts**



**Aadhaar or other
biometric
databases**



**Phone Number
and USSD**



Thank you for your attention!