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Financial Market

## Why do we Need Smart Contracts?



Offer a Higher  
Degree of Trust  
and Reduced Risks



Reduced  
Administration and  
Service Costs



Potential to Weed out  
Inefficient Business  
Processes

# Introduction to FinTech and Smart Contracts

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Hosted by Labuan FSA and Labuan IBFC Inc.

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# FinTech – The Buzz Word

## What is Fintech?

I say, it is Disruptive Technology to provide seamless workflow.  
It is an overlap of Technology and Finance.

Why Disruptive..... It disrupts the financial system. Shifting current manual and inefficient workflow by eliminating human intervention, eliminating possible human errors and introduces Artificial Intelligence in the equation towards automation.

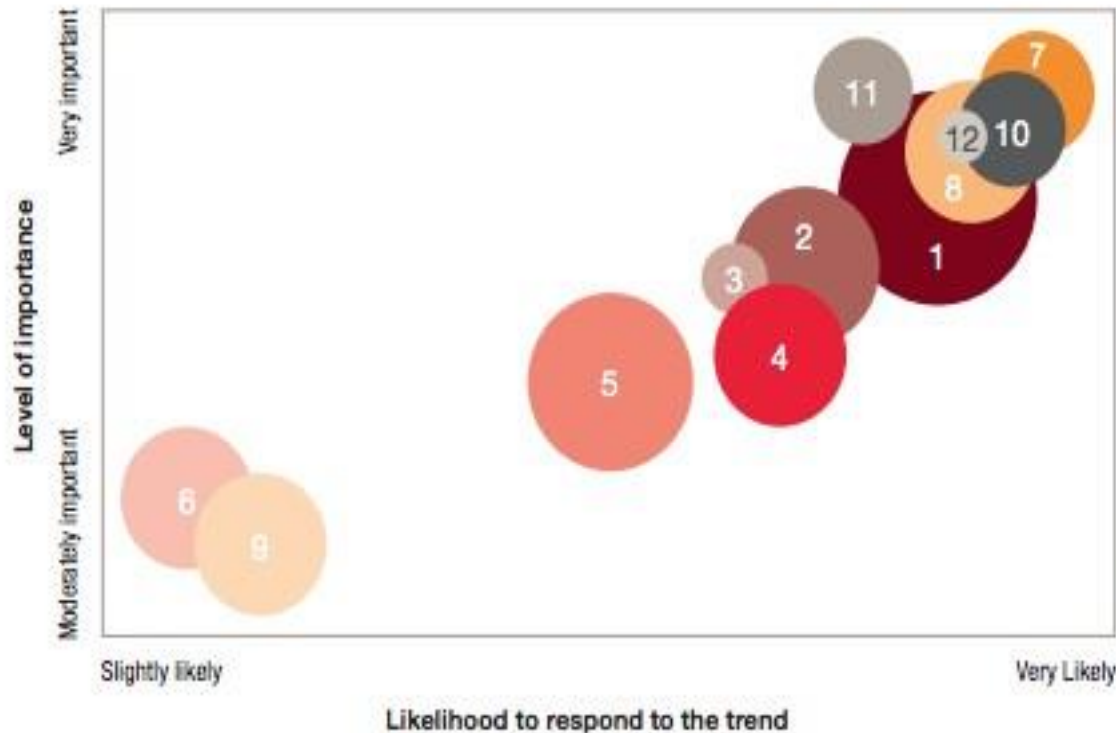
With the fast development of technology, we in the financial market have to be ready to embrace it. Having said that, some banks have already started implementing. Branchless banking is coming!!!

Now a days, FinTech is also associated with Mobile wallet, Bitcoin etc.



# FinTech Innovation Trends

The size of the bubbles is proportional to the number of related FinTech companies as assessed by the DeNovo platform



## Asset and Wealth Management

- 1. Increase in digital solutions that firms can integrate to improve operations\*
- 2. Increased innovation in research tools and analytical capabilities to enable better investment decision-making
- 3. Shift from technology-enabled human relationships to digital experiences with human support

## Banking

- 4. Increased customer empowerment/control of financial matters
- 5. Emergence of new services and solutions for unserved/underserved customers\*\*
- 6. Enhanced credit underwriting using non-traditional metrics to determine applicant creditworthiness

## Insurance

- 7. Increased sophistication of data models and analytics to better identify and quantify risk
- 8. Increased sophistication in methods to reach, engage and serve customers in a highly-targeted manner
- 9. Rise of aggregators to compare products and services from different providers

## Transactions and Payments Services

- 10. Use of advanced methods, tools and technologies to improve information security and predict, detect and analyse fraud
- 11. Proliferation of mobile wallets and new payment options
- 12. Increase in use of consumer data to improve value-added service offerings

\* Also the most relevant trend in Banking

\*\* Also a relevant trend for Asset and Wealth Management

Source: PwC Global FinTech Survey 2017 and DeNovo

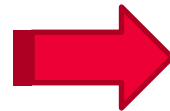


# Smart Contracts

## Is it smart?

"A set of promises, specified in digital form, including protocols within which the parties perform on the other promises."

- Nick Szabo, 1994



## Is it a contract?

"A smart contract is an agreement whose execution is **both automatable and enforceable**. Automatable by computer, although some parts may require human input and control. Enforceable by either legal enforcement of rights and obligations or tamper-proof execution."

- Clack, Bakshi and Braine, 2016.

Presently we are at the relatively early stage of development in this field ,as there is still a lack of agreement on what a smart contract is in terms of existing Legal Standards and Contracts and will replace current legal contract or simply automate



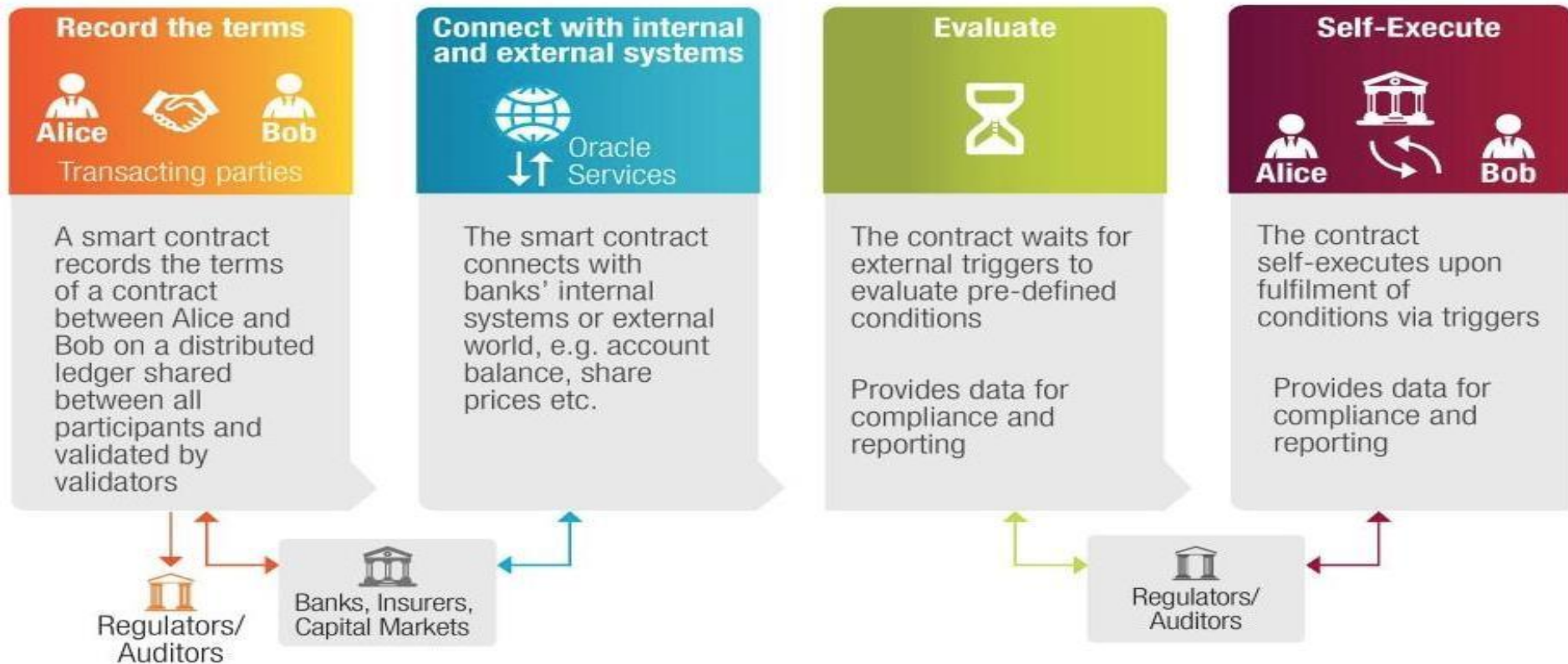
## Is FinTech Really A New Phenomena?

- Contract Matching - Trax
- Settlement Matching and Clearing - Clearstream and Euroclear
- Settlement Cashflow on Bonds and Sukuk
- Collateral Management - Tri Party





## Smart Contract Lifecycle



Source: PC Magazine Image credit: Capgemini



# A smart contract summary



A smart contract automates tasks



Using software code.



Making processes more efficient



And faster



To improve performance.



Works well with distributed ledgers



But they can work with other technology too



Not all of a contract needs to be automated



Indeed, many terms are more than just logic.



But you can blend the best of both worlds.

# Smart Contracts



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- “Smart legal contract” versus “smart contract code”. The latter refers to elements of legal contract being represented and executed by software. The former is the code designed to execute certain tasks
- *A smart contract is an automatable and enforceable agreement. Automatable by computer, although some parts may require human input and control. Enforceable either by legal enforcement of rights and obligations or via a tamper-proof execution of computer code*
- Certain operational clauses within legal contracts lend themselves to being automated. Other non- operational clauses, eg, governing law clauses, are less susceptible to being expressed in machine-readable code. Other legal clauses are subjective or require interpretation
- A possible near term application of a smart contract is for the legal contract to remain in natural legal language, but for certain actions to be automated via smartcontract
- This would require those actions, eg, payments and deliveries, to be represented in a more formal, standard way within the ISDA Definitions, enabling them to be read by machines
- Transaction data could be held on a distributed ledger that would be available to regulators. This would ensure there is a single, shared representation of each trade
- **Industry wide standards are required to ensure smart contracts are interoperable across firms and platforms. ISDA is working on these standards**

Source: Dr. Peter Werner, ISDA





## Survey Time

**Is it a Legal Contract Issue**

**OR**

**Smart Coding Issue**



# ICMA FinTech Directory

- European Repo & Collateral Council, Operations WG and FinTech WG Initiative
- KYCOn Boarding
- Matching and Confirmation
- Collateral Management
- Corporate Action
- Exposure Agreement
- Reconciliation



## Where can Islamic Finance Adopt?

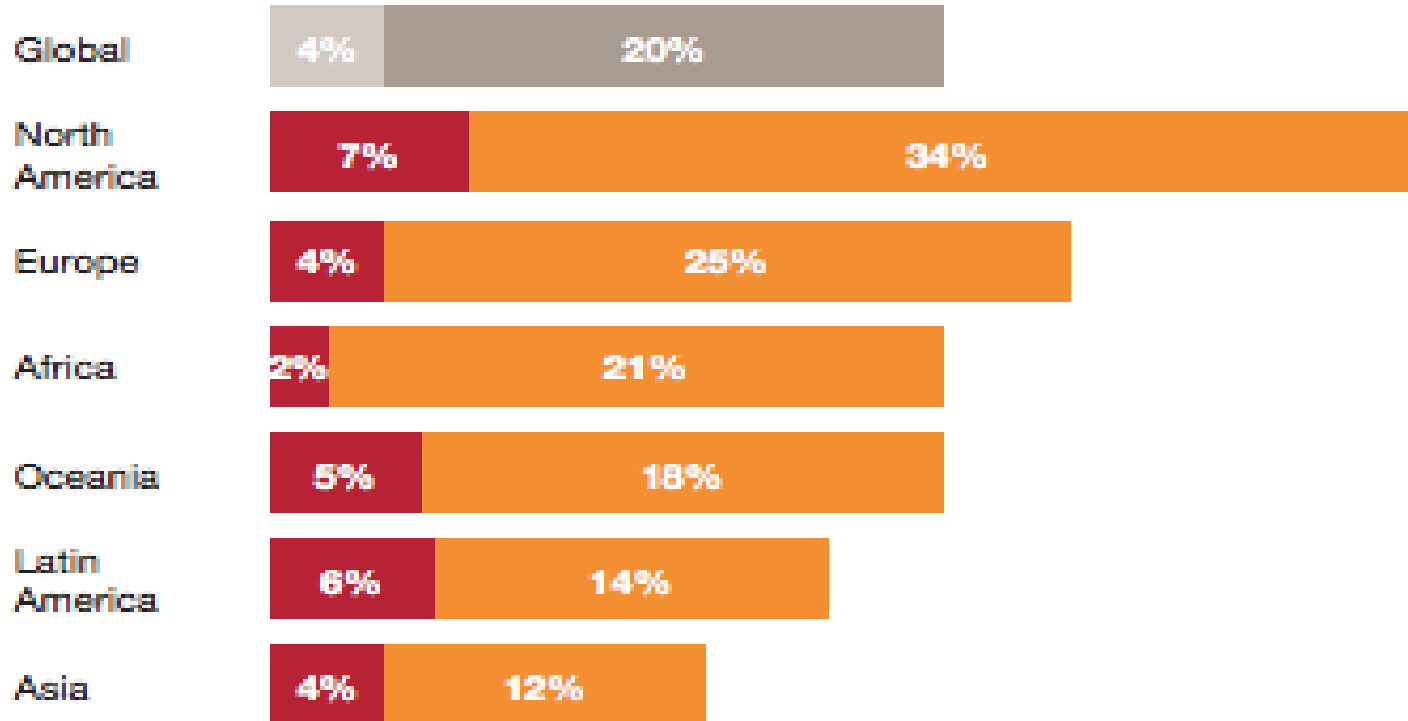
- Possible Automation in Islamic Finance
- Murabahah
- Collateralised Murabahah - Collateral Management and Margining
- Wakalah
- Tahawwut Master Agreement – Profit Rate Swap etc



# We All Are Learning

Please describe the extent to which you are familiar with blockchain technology

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■ Extremely familiar ■ Very familiar

Source: PwC Global FinTech Survey 2017



# The Way Forward

Like we embraced internet and social media.

Think how you can streamline and automate

Embrace Fintech and work towards :

**Standard Enforceable Agreement,**

**Tamper proof execution of Computer code** and

**Automation**

**Smart Contract is Here and it will Catch On!**



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# *Shukran*

# *Wassalamu Alaikum*

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