

# FinTech and RegTech – Navigating the Latest Trends and Challenges

## SPEAKERS:



**Michael Wong, *IBM***

**«Emergence & Trends»**



**Jonathan Fairtlough, *Kroll***

**«FinTech, RegTech and Smart Contracts meets Financial Institution Risk Management»**



**Nick Beckett, *CMS China***

**«Overview of the Development of FinTech and RegTech in China»**



**Oliver Yaros, *Mayer Brown International LLP***

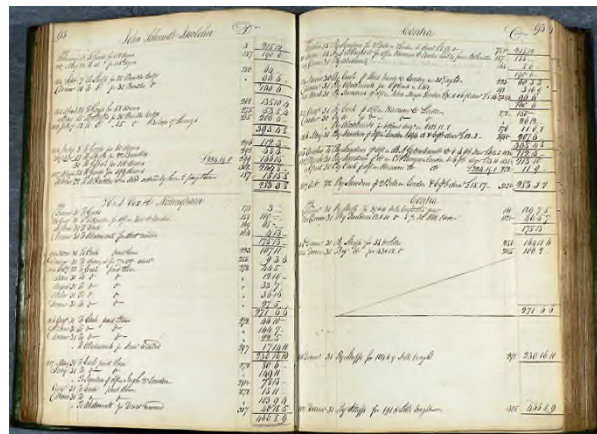
**«Fintech projects in Europe»**



**MODERATOR: Dr. András Gurovits, *Niederer Kraft & Frey Ltd***

# Fintech & Regtech: Emergence & Trends





Digitisation + Democratisation + De-regulation

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Disruption

# Peak Fintech hype or the emergence of a new innovative normal?

There has been a cambrian explosion of innovation and PoC's, leading to questions of fabric standardisation and speed of adaption



## Slide 5

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### MW [2]2

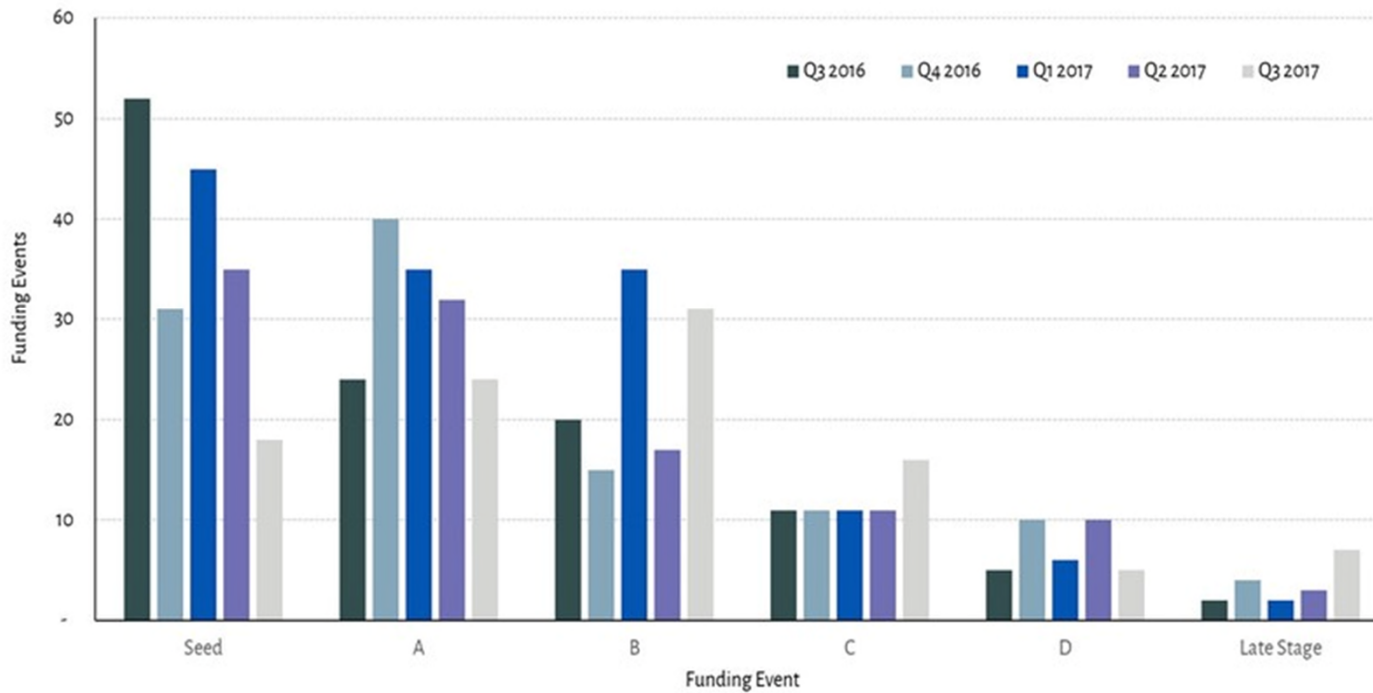
Cambrian explosion borrows from evolutionary concepts; what are the factors that lead to our cambrian explosion (see earlier slide on contributory factors - democratisation of productivity plus capital availability, incumbent lethargy, regulatory stagnation / disruption)...is this the new normal, will we continue to see growth as emerging markets also begin to access capital and technology base? Will we see mass consolidation as incumbents adapt and absorb differentiating methods from FinTechs in to their "dna" The options are 1) incumbents overcome the new comers, by competing through their own products and regulatory pressure (environmental shaping) 2) incumbents co-operate and adopt, merging into new organisations 3) incumbents disappear, or dwindle as new organisations (FIntech) grow and outcompete or 4) the ecosystem shifts dramatically, with emerging economies and markets coming online we see new spaces emerging giving FinTechs the opportunity to occupy new spaces without overlapping with existing / incumbent / mature markets

Michael WONG; 21.11.2016

# Fintech investments are now shifting to later stages, suggesting the industry is beginning to mature



FINANCIAL TECHNOLOGY  
Funding Count by Round in Recent Quarters

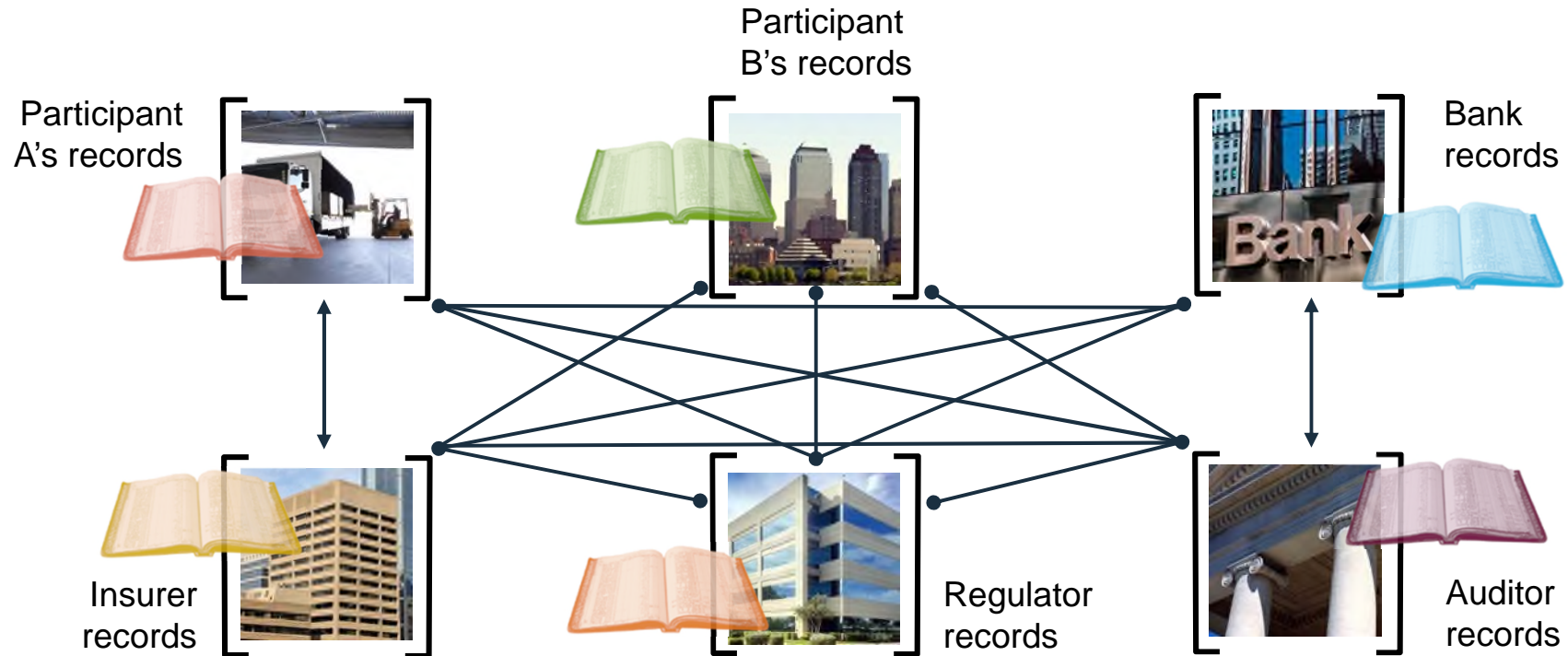


Data cumulative through September 2017

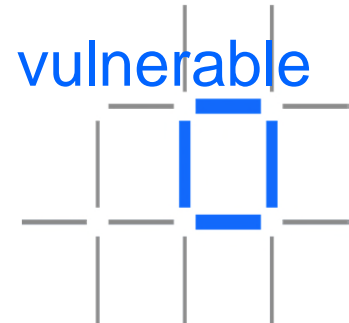
- Blockchain; business networks & trust
- Cognitive computing; making sense of regulation



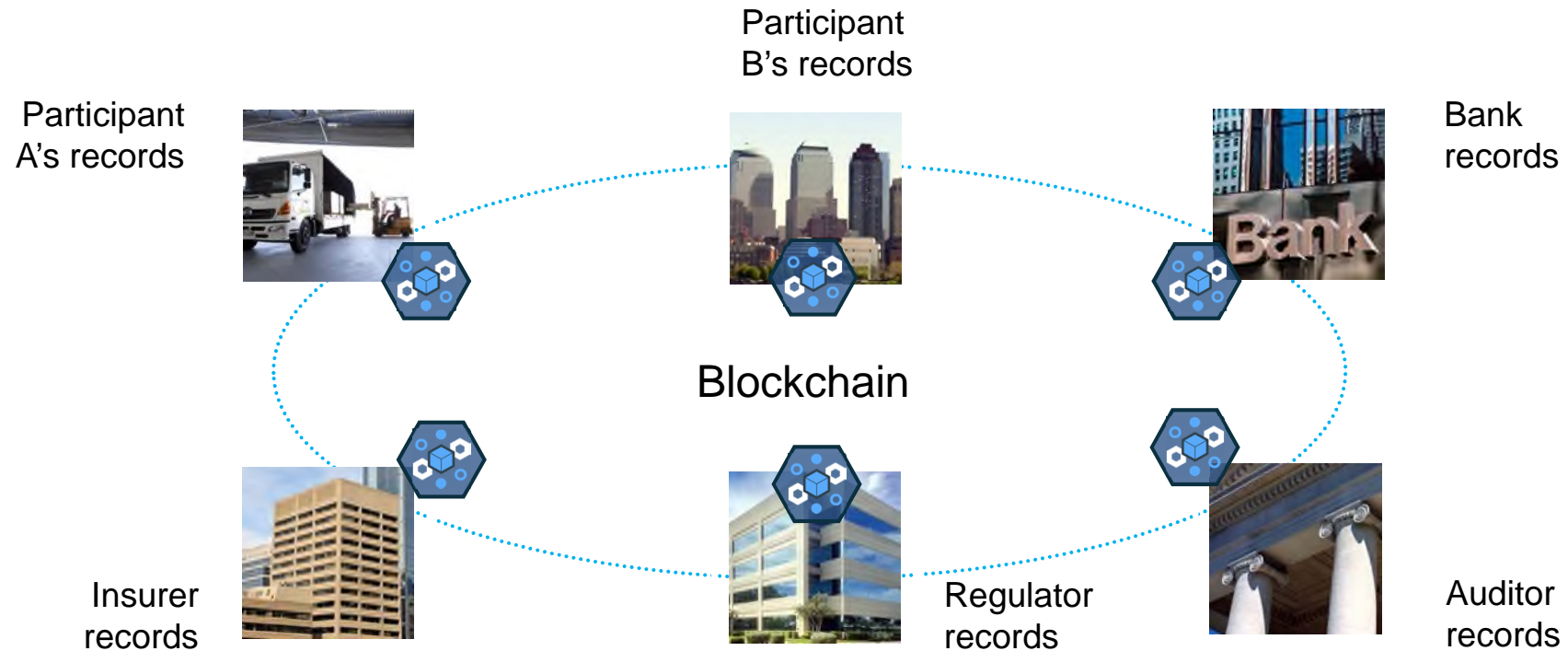
# Today's business environment



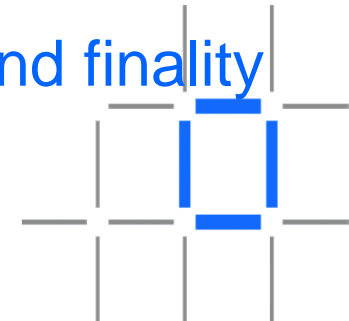
... inefficient, expensive, vulnerable



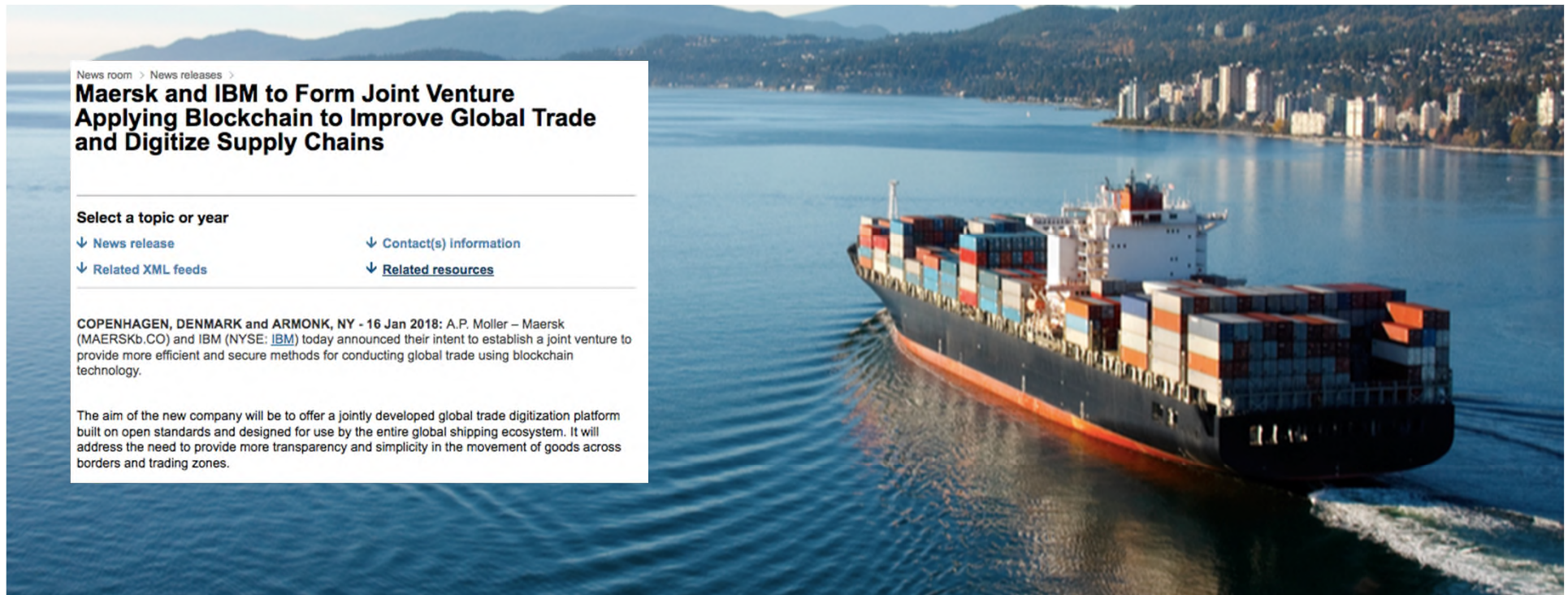
# A shared, replicated, permissioned ledger ...



... with consensus, provenance, immutability and finality



# Global Trade Digitization Network - Maersk



News room > News releases >

## Maersk and IBM to Form Joint Venture Applying Blockchain to Improve Global Trade and Digitize Supply Chains

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Select a topic or year


- ↓ [News release](#)
- ↓ [Contact\(s\) information](#)
- ↓ [Related XML feeds](#)
- ↓ [Related resources](#)

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**COPENHAGEN, DENMARK and ARMONK, NY - 16 Jan 2018:** A.P. Moller – Maersk (MAERSK.CO) and IBM (NYSE: [IBM](#)) today announced their intent to establish a joint venture to provide more efficient and secure methods for conducting global trade using blockchain technology.

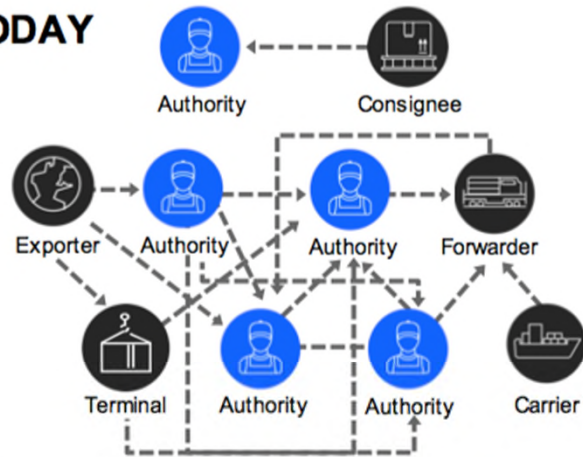
The aim of the new company will be to offer a jointly developed global trade digitization platform built on open standards and designed for use by the entire global shipping ecosystem. It will address the need to provide more transparency and simplicity in the movement of goods across borders and trading zones.

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**IBM** |  **MAERSK**

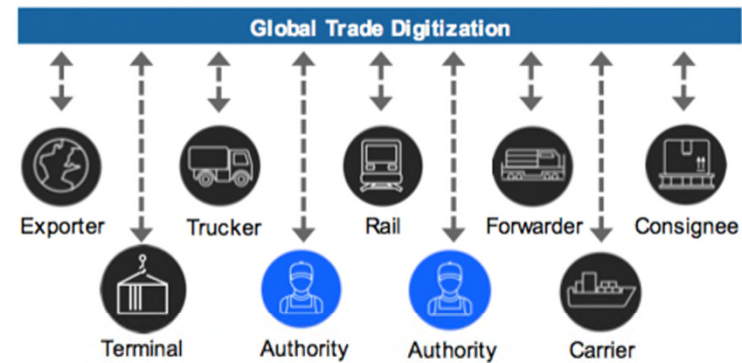
# Global Trade Digitization Network - Maersk

## TODAY



- Inconsistent information across organizational boundaries and “blind spots” throughout the supply chain hinder the efficient flow of goods
- Complex, cumbersome, and costly peer-to-peer messaging
- Manual, time-consuming, paper-based processes
- Risk assessments often lack sufficient information; clearance processes subject to fraud
- The administrative cost of handling a container shipment is comparable to the cost of the actual physical transport

## TOMORROW



- Instant, secure access to end-to-end supply chain information; single source of the truth
- Assurance of the authenticity and immutability of digital documents
- Trusted cross-organizational workflows
- Better risk assessments and fewer unnecessary interventions
- Far lower administrative expenses and elimination of costs to move physical paper across international borders

## Digital Trade Chain – We.Trade



# Discover the future of trade finance, today.

[News room](#) > [News releases](#) >

### Seven Major European Banks Select IBM to Bring Blockchain-Based Trade Finance to Small and Medium Enterprises

- Blockchain network designed to help make domestic and cross-border commerce easier

- IBM Blockchain running Hyperledger Fabric Selected for Digital Trade Chain

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#### Select a topic or year

[↓ News release](#)

[↓ Contact\(s\) information](#)

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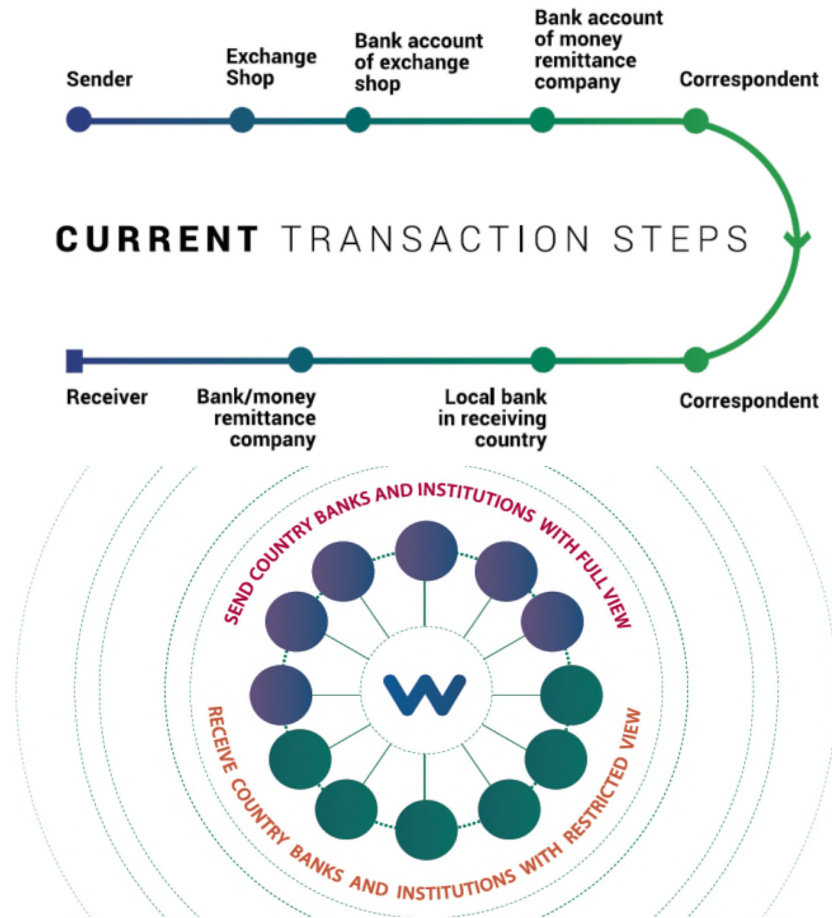
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ARMONK, N.Y. - 26 Jun 2017: IBM (NYSE: [IBM](#)) today announced that it has been selected by a consortium of seven of Europe's largest banks to build and host a new trade finance platform based on IBM Blockchain powered by Hyperledger Fabric. The platform is designed to simplify and facilitate domestic and cross-border trade for small and medium enterprises in Europe, while helping to increase overall trade transaction transparency.

Through a global competitive bidding process, IBM was selected by the Digital Trade Chain Consortium which consists of Deutsche Bank, HSBC, KBC, Natixis, Rabobank, Societe Generale and Unicredit.

The Digital Trade Chain solution will run in the IBM Cloud and is designed to connect the parties involved in a trade transaction, both online and via mobile devices. It is designed to simplify trade finance processes by addressing the challenge of managing, tracking and securing domestic and international trade transactions.

# Remittance Industry



- Serving mainly unbanked and low income migrant workers
- High costs related to bank fees driven by high risk and regulatory requirements
- Potential for exploitation and money laundering
- Blockchain system Includes regulators, banks and financial institutions

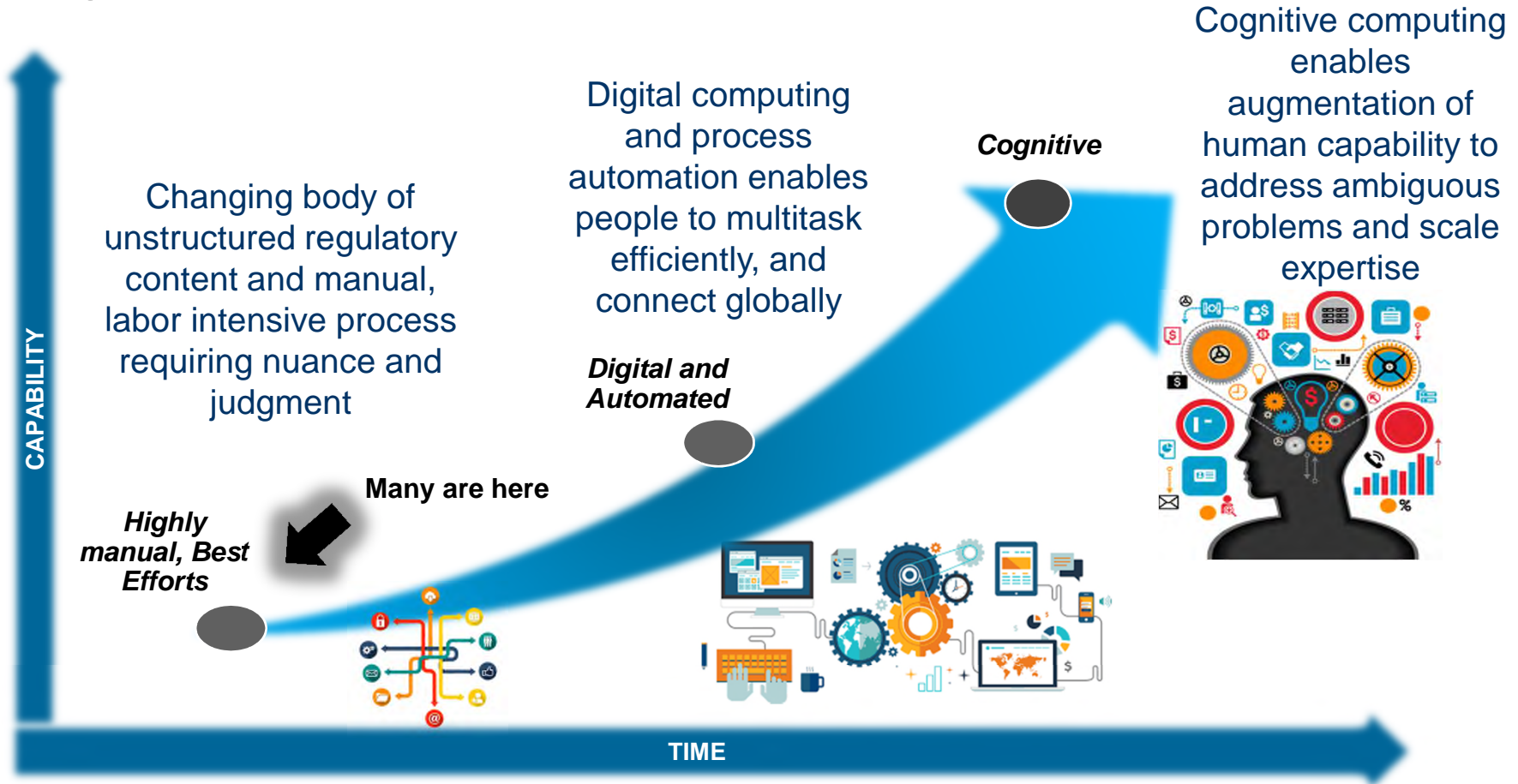
# Jeopardy!



300,000,000



# Cognitive: Watson & Promontory solutions augment human judgment and skills



Fintech represents a rising tide of innovation that will fundamentally change the way we do business

What are the opportunities?  
How will we engage?  
Who will we partner with?

# Back Up

# London Stock Exchange – Paternoster Square



< 90%

58%

# Engagement



**London**  
Stock Exchange



1. Ecosystem evaluation
2. Technology partnership
3. Investment & adoption
4. Transformation



# **FinTech, RegTech, and Smart Contracts meets Financial Institution Risk Management**

**Jonathan Fairtlough**  
**Managing Director**

# The Cyber Wild West

## The thieves are getting better tools to access more targets

- Criminal toolkit has Expanded
  - Wikileaks/Vault
  - Shadow brokers Blog
  - Middleware attacks
- Cyber crime as a service
- Cryptocurrency for ease of payment
- Attack Vectors have increased
  - 3<sup>rd</sup> party Integration
  - Cloud systems
  - Ubiquity of Encryption
  - Mobile device use
  - Social engineering

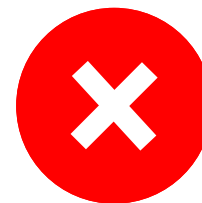


# Crypto Currencies

## A solution and a new set of concerns



- Simplify payment systems
  - Reduce third party intermediaries
  - Global payment verification
  - Block chain as authentication to limit alteration
- Protected Payment method
  - Encrypted transactions
  - Anonymous payment



- Transparency Issues
  - Know your customer issues
- Technical Issues
  - Block chain transfer can be time intensive
- Regulatory Issues
  - Few frameworks in place
- Fueling a crime wave
  - Its strengths protect the criminal
  - ICO craze leaving victims in wake

# The issues

## The Block Chain, Crypto Currencies and the Financial Industry

- Block chain
  - Global authentication
  - Uses Encryption for validation and authentication controls
  - Allows for Anonymous transactions
  - Reduces need for third party action
- Crypto Currency
  - Online storage security issues
  - Cold storage access issues
  - Making a market impediments
- Issue #1 “Identification”
  - Money Laundering statutes
  - Know your customer statutes
- Issue#2 “Notification”
  - Service and Response to process
  - Knowing which statutes apply to a transaction that is global
- Issue #3 “Enforcement”
  - Legal authentication versus digital authentication
  - Forced transfer of crypto codes
- Issue #4 Collection
  - Seizure of collateral
  - Liens, levies and court orders

# The New Reality

- **Digital Due Diligence becoming a requirement**
  - Customer validation through digital activity needed
  - Institutional knowledge sharing needs to be more robust
- **Forensic Artifact preservation needed**
  - Logging of processes needs to be verbose, constant and searchable
  - Endpoint monitoring critical to early detection of issues
  - Institutions need to be able detect anomalous behavior in multiple systems
- **Data loss and recovery needs a risk management focus**
  - Identification of important assets and network segregation to match analysis
  - Backup Strategy must be robust, external and tested
- **Cyber attacks cannot be 100% avoided.**
  - Incident response planning and training is essential
  - Early identification is key- fine tune playbooks and internal notification methods

# Building a Defense in Depth

## Asset management & tracking

Data loss prevention solution

## Network Protection

- Endpoint Monitoring
- Active Firewall Configuration
- Network and User Segmentation
- Limits on Admin controls
- Segregated backups
- Network monitoring

## Personnel & process monitoring

- Training, and more Training
- Security Information and Event Management System
- Web use monitoring
- Network Intrusion Detection System

## Threat intelligence



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Your World First



# Overview of the Development of FinTech and RegTech in China

Nick Beckett

Managing Partner, CMS Beijing Office



Overview of the Development of FinTech and RegTech in China | 8 March 2018

## How are new technologies applied in financial services?



### Payment

- online payments and mobile payments
- biometric identification



### Process efficiencies

- blockchain technologies
- RegTech



### Insurance

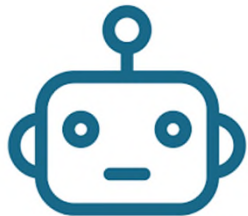
- data based risk identification and mitigation
- smart contract

## How are new technologies applied in financial services?



### Deposits and lending

- peer-to-peer (P2P) lending
- P2P financing platforms



### Investment management

- big data analysis
- AI/robot - adviser



### Fundraising

- crowdfunding
- Investment syndication



## Why does FinTech grow fast in China?

active in commissioning innovative initiatives; moderate in regulating



largest consumer base; considerable underserved SMEs

high availability of capital; enthusiasm in new business

a large pool of FS, technical and entrepreneurial talent

## China's AI Strategy



A screenshot of the Chinese government's official website, www.gov.cn. The page displays several key documents related to China's AI strategy. At the top, the website's navigation bar includes links for '国务院' (State Council), '总理' (Premier), '新闻' (News), '政策' (Policy), '互动' (Interaction), and '服务' (Service). The main content area features a prominent notice from the State Council regarding the '新一代人工智能发展规划' (Next-Generation Artificial Intelligence Development Plan). Below this, there is a banner for '中国制造2025' (Made in China 2025) with the text 'MADE IN CHINA'. To the right, another notice from the National Development and Reform Commission is visible, titled '关于印发《“互联网+”人工智能三年行动实施方案》的通知' (Notice on Issuing the 'Internet+' Artificial Intelligence Three-Year Action Implementation Plan). The bottom of the screenshot shows a video player with a man in a white shirt, likely a government official, speaking.

# Subsector analysis – payment ecosystem



## Subsector analysis – payment ecosystem



No Cash Day / Cashless Month  
since 2015



Cashless Week  
since Summer 2017



Win in-app rewards ranging in value from about 10 cents to \$700.

## Subsector analysis – ICO and P2P



ban on ICO



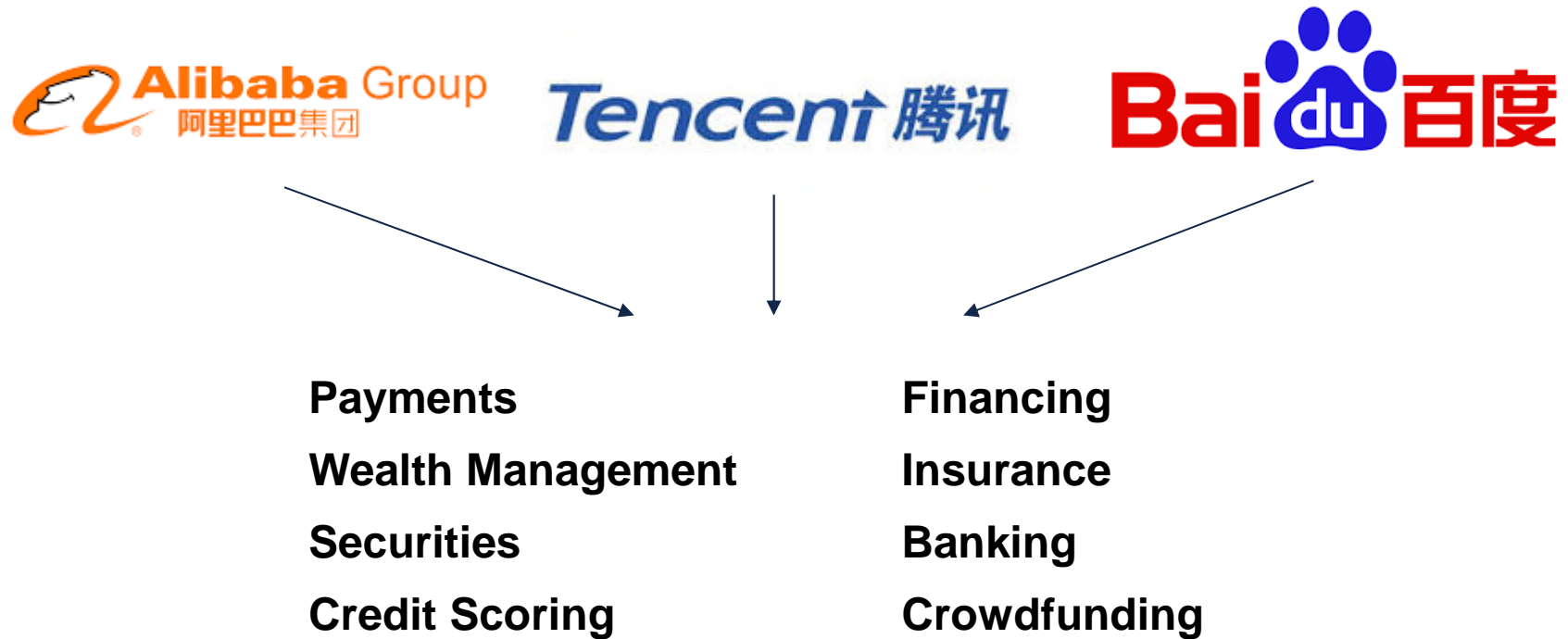
strict regulation over P2P lending

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# FinTech

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## Who are the main players?



## What are the major legal issues?



### Data Protection

- transparency – informing users clearly
- trust – obtaining users' consent
- security – protecting users' privacy

### Challenges brought by:

- strict personal data protection requirements under the new PRC Cybersecurity Law
- restrictions on cross-border transfer of personal financial data

## What are the major legal issues?



### IP Protection

- copyrights
- trademarks
- trade secret

### Challenges brought by:

- uncertainty of the patentability of business methods in China
- policy balance between innovation protection and spread of new technologies



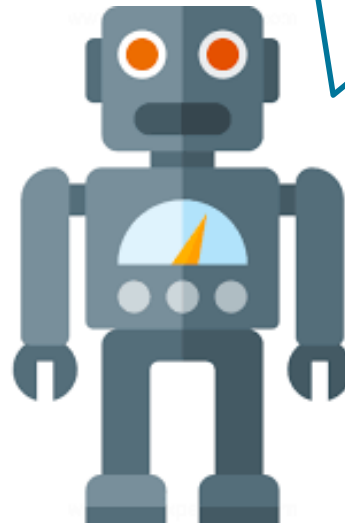
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# RegTech

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RegTech is a key component of FinTech. It applies to new technologies developed to help overcome regulatory challenges in financial services.



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# RegTech

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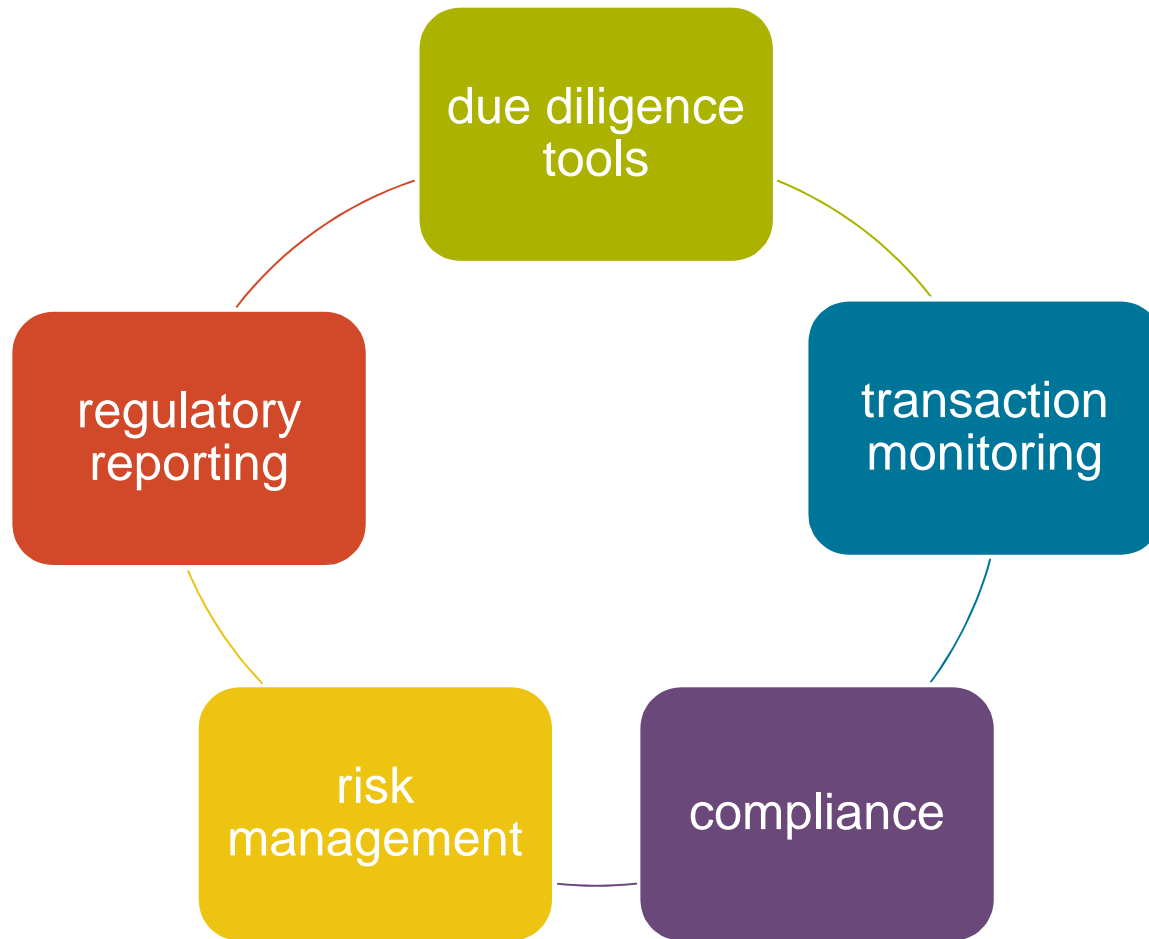


A FinTech committee has been established under the PBOC's Technology Department to explore the possibility of applying new technologies in regulatory work.

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# RegTech

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Targeted areas  
for RegTech  
firms



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# Fintech and Regtech: Navigating the Latest Trends and Challenges

## Fintech projects in Europe

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March 2018

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# Speaker



**Oliver Yaros** is a partner in the Intellectual Property & IT Group of the London office of Mayer Brown International LLP and advises clients on fintech, digital and other technology transactions, outsourcing, data protection, privacy, e-commerce and IP issues. Oliver often acts on global financial industry utility projects, IT and business process outsourcing projects and IT systems procurement transactions as well as advising a range of clients (financial institutions, manufacturers and retailers of consumer products, publishers and providers of digital media and online content) on many e-commerce and data protection issues. He has spent 18 months seconded to the IP and technology legal team of a global bank.

# Fintech and Regtech Landscape in Europe

- **Open banking and payments**
  - Payment processing
  - Mobile payments
  - Forex
  - Cards
  - Rewards
- **Insurance (Insurtech)**
  - Broking
  - Underwriting
  - Claims
  - Risk Tools
- **Planning and risk management**
  - Personal finance
  - Retirement planning
  - Tax and budgeting
  - Enterprise Resource Management
  - Customer Resource Management
  - Compliance & KYC
  - Data Storage
  - Infrastructure services
- **Lending/crowdfunding**
  - Finance platforms
  - Dashboards
  - P2P
- **Distributed Ledger Technology (blockchain)**
  - Cryptocurrencies
  - Smart Contracts
  - Payments and settlement
  - Asset Tracking
  - Identify Management
- **Trading and Investments**
  - Investment Management
  - Robo advisory
  - Trade pricing and algos
  - Trading IT
  - Trading platforms
  - Brokerage
  - Clearing
- **Data and Analytics**
  - Big data
  - Data visualisation
  - Predictive analytics
  - Data provision
- **Security**
  - Digital Identity
  - Authentication
  - Fraud Management
  - Cybersecurity
  - Data encryption

# Fintech and Regtech in Europe: Project structures

- Disruptors (e.g. N26)
- Bilateral transactions between banks and providers
- Joint ventures (e.g. Santander and Monitise)
- Bank led consortia (e.g. Symphony, R3 etc)
- Service provider led consortia (e.g. kyc.com)
- Cross industry or government supported initiatives (e.g. eID under the Connecting Europe Facility, Project Innovate etc)



# Fintech and Regtech in Europe: Typical issues

- Addressing the viability and sophistication of the fintech's business
- Understanding the suitability and limitations of the technology
- IP ownership and licensing
- Future changes to the service and service commitments
- Dealing with data
- Liability

# Discussion

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