# Blockchain Applications in Digital Finance (beyond cryptocurrencies)

John Soldatos, March 4, 2021





This project has received funding from the European Union's horizon 2020 research and innovation programme under grant agreement no 856632

# Blockchain Traction in 2021

#### Interest in Cyptocurrencies is Booming

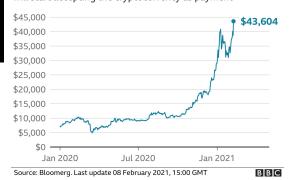
- BTC reaches all time high!
- Crypto Marketcap exceeded 1 trillion in 2021!
- Tesla bought 1.5 bn \$ in BTC
- Cryptocurrencies promoted as "digital gold" due to scarcity

#### *Wider Interest in Blockchain Technology Remains Vivid*

• Many startups, increased equity investments, several EU based blockchain startups



Bitcoin jumps as Tesla buys currency Tesla purchased \$1.5bn of Bitcoin and announced it will start accepting the cryptocurrency as payment



**Tesla** 

Buys

Bitcoin

**∞** 2

## Using Blockchain Technology in Digital Finance (Beyond Crypto) - Criteria

#### Use Blockchain In Industrial Applications when:

- There is a need for a shared database
- There is a need for a database with multiple writers.
- The use case involves with multiple non-trusting writers.
- It is not appropriate or feasible to rely on a trusted intermediary (i.e. Trusted Third Party (TTP).
- There is a need for interactions between transactions in the database

### Avoid Blockchain in Industrial Applications when:

- There is a lack of any of these five conditions (e.g., when a TTT can ensure trustworthiness across the different writers.
- When trust and robustness are not an important issue for the use case at hand.



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## Blockchain Themes for FinTech (1)

#### (Cross-Border) Payments

• Value Proposition: Faster Payments & Reduced Transaction Costs

#### Real Time Settlements – Stock Exchange Transactions

 Value Proposition: Eliminate Regulatory approvals & mandatory clearances – Reduced Transaction Costs

#### Automated Trading (Smart Contracts)

 Value Proposition: Token Transfer with Less Regulatory Overheads – Automated Trades



## Blockchain Themes for FinTech (2)

### Crowdfunding & ICO (Initial Coin Offerings)

• Value Proposition: Trust and Reduced fees, based on Security Token Coins (STC) that replace intermediaries

### KYC – AML and Customer Centric Products (e.g., Loans)

• Value Proposition: Syndicated Lending based on Seamless Data Sharing and Verification following KYC & AML Processes

### Auditing in a Variety of Settings (e.g., Electronic Notary)

• Value Proposition: Speed, Trustworthiness and higher Security



# Blockchain Themes for FinTech (3)

## Data Sharing for Credit Risk Scoring - Assessment

• Value Proposition: Lower the Barriers of Data Sharing across financial organizations (Credit Risk Assessment)

## Collaborative Risk Assessment

 Value Proposition: Lower Barriers for Data Sharing (Cybersecurity data)

Polyviou, A.; Velanas, P.; Soldatos, J. Blockchain Technology: Financial Sector Applications Beyond Cryptocurrencies. Proceedings 2019, 28, 7. https://doi.org/10.3390/proceedings2019028007



# Today's Agenda

#### March 4th (10.00-12.00) CET

Session 1: Blockchain Applications Presentations and Demonstrators	
10:00 - 10:10	"Overview of Blockchain Applications in the Finance Sector – Workshop Overview", John Soldatos
10:10 - 10:30	"Decentralized Management of Consent in Finance Applications", Dimitris Miltiadou, UBITECH S.A.
10:30 - 10:50	"Empowering Digital Finance Innovation with Blockchain Tokenization", Fabiana Fournier, IBM Israel
10:50 - 10:55	Break
10:55 - 11:15	"Know Your Customer (KYC): A Blockchain Based Implementation", Nikos Kapsoulis, INNOV-ACTS LTD
11:15 - 11:35	<b>"Analysing Blockchain Transaction Graphs for Fraudulent Activities"</b> , Alper Sen, Boğaziçi University
11:35 - 11:40	Break
Session 2: Open Discussion and Stakeholders Feedback	
11:40 - 11:50	Open Questions and Answers Session - (Questions from the Audience)
11:50 - 11:55	Guided Feedback – Questionnaires Filling (All Participants) <sup>2</sup>
11:55 - 12:00	Meeting Close & Conclusions

#### Call for Action:

- Please provide your feedback – Fill-in our Survey
- Subscribe to
  INFINITECH Newsletter
- Join the INFINITECH Marketplace (to be launched March 2021)

