



NEW TECHNOLOGY AND LAW

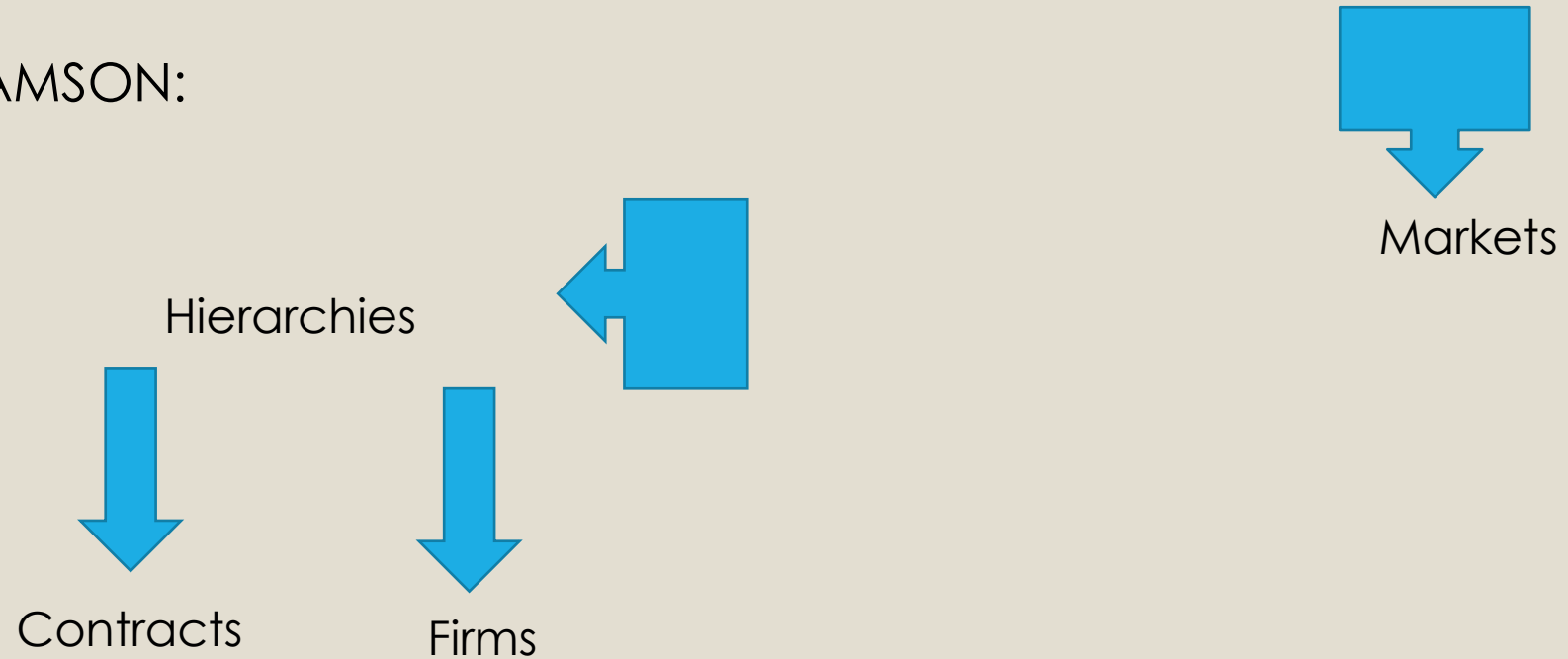
Workshop ITM & GEDAI (Münster University/Germany)- 2019

BLOCKCHAIN TECHNOLOGY AND THE ECONOMIC INSTITUTION OF CAPITALISM

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ECONOMIC INSTITUTIONS OF CAPITALISM

Oliver WILLIAMSON:



ECONOMIC INSTITUTIONS OF CAPITALISM

Oliver WILLIAMSON:



Reduce costs

ECONOMIC INSTITUTIONS OF CAPITALISM

Opportunism
uncertainty



frequency.

Specific assets

Opportunism (uncertainty)

HAND UP EFFECT –





Opportunism is self interest seeking with guile often involving subtle forms of deceit, especially calculated efforts to mislead, distort, disguise, obfuscate, or otherwise confuse. This vastly complicates the problems of economic organisation. Plainly if it were not for opportunism all behaviour could be rule governed

— *Oliver E. Williamson* —

AZ QUOTES

Strategies:

Contracts or Firm



BLOCKCHAIN TECHNOLOGIE



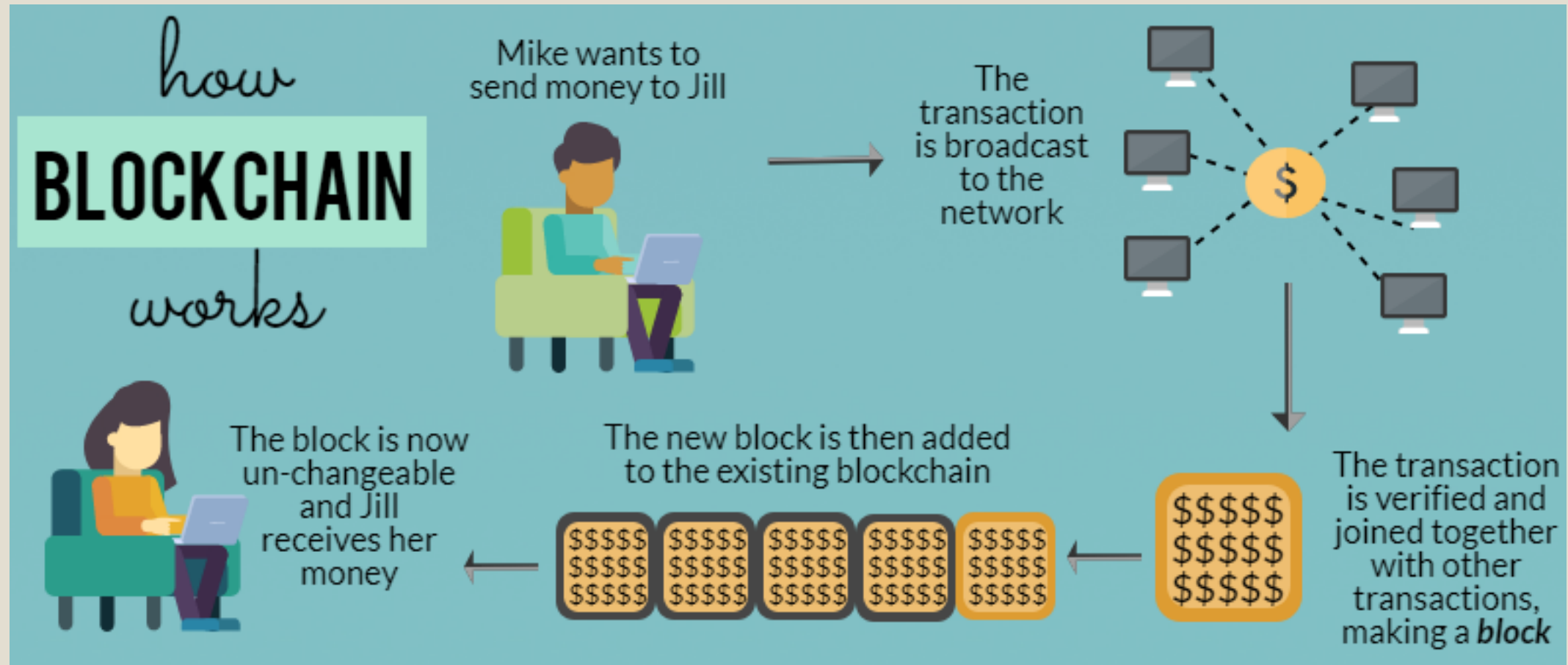
BLOCKCHAIN TECHNOLOGIE

- “Blockchain technology” means a mathematically secured, chronological, and decentralized consensus ledger, or database, whether maintained by internet interaction, peer-to-peer network, or otherwise.
- – Vermont (US, Legislative Code) Rule of Evidence 902 §1913 (2016)

BLOCKCHAIN TECHNOLOGIE

- A distributed ledger is essentially an asset database that can be shared across a network of multiple sites, geographies or institutions. All participants within the network can have their own identical copy of the ledger. Any changes to the ledger are reflected in all copies in minutes, or seconds.
 - Walport (UK Government Chief Science Advisor) (2016)

BLOCKCHAIN TECHNOLOGIE



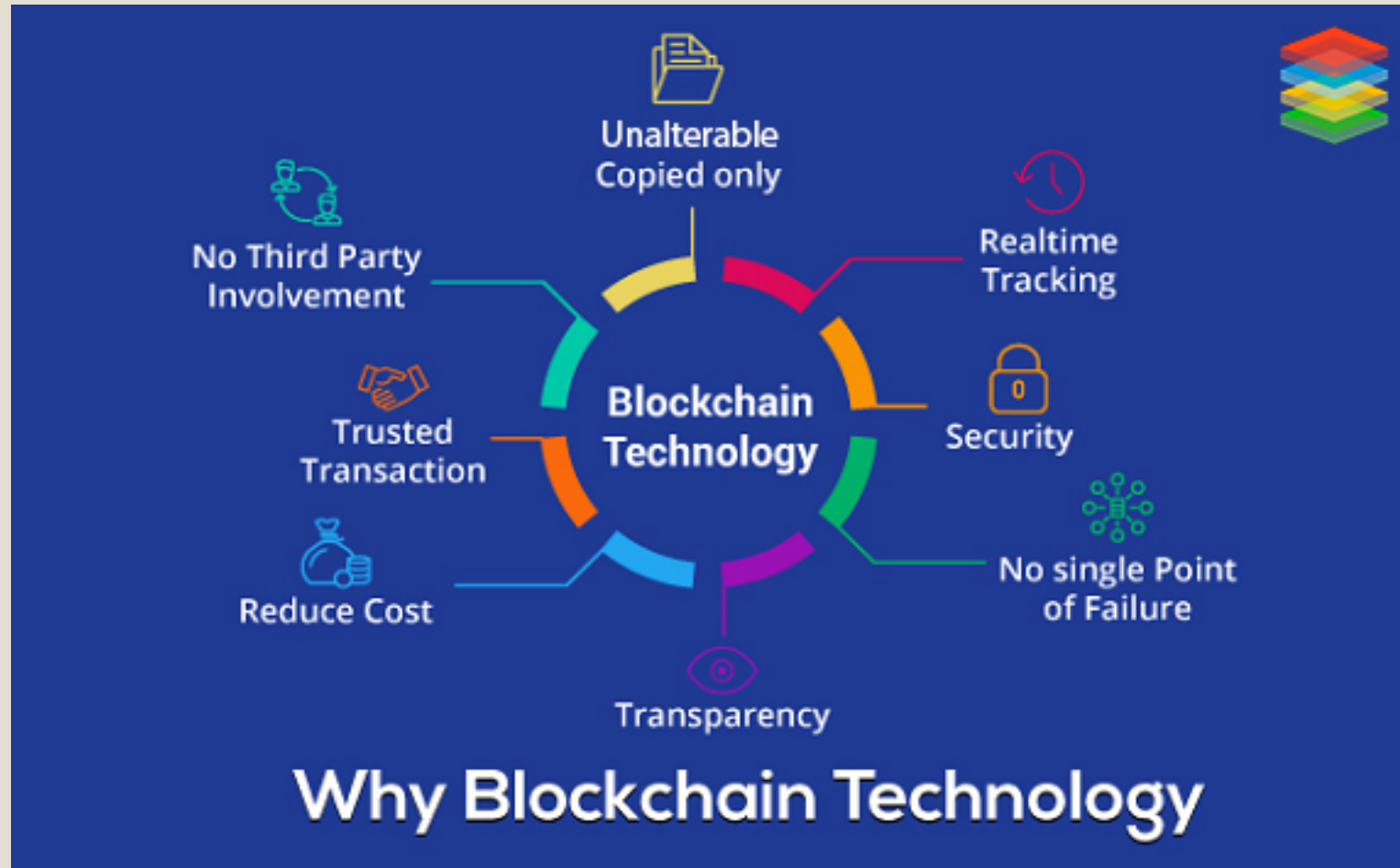
BLOCKCHAIN TECHNOLOGIE

CONSENSUS



REPUTATION

EFFECTS:



EFFECTS:

At the time of writing , blockchain technologies are still experimental. The underlying platforms and protocols are still being developed, adapted and optimized.

This is unfolding as a competitive process, yet one that is also notably also highly collaborative in terms of knowledge sharing.

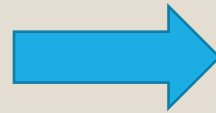
The Bitcoin blockchain has been operating continuously since 2009, the Ethereum blockchain since mid 2015.



Blockchain innovations increase total factor productivity by their effect on marginal factor productivity. They do so by reducing the production costs associated with any endeavour to produce a particular output.

Blockchain technology reduces a production cost by eliminating an intermediate cost in a production process

MARKET X CONTRACT X FIRM



BLOCKCHAIN

Why less production costs??

Specifics of the size of the aggregate effect and the exact form of the distributional gains and losses (what Joseph Schumpeter called 'creative destruction') are ex ante unknowable, as are the exact shape of all the entrepreneurial opportunities and forms of consumer surplus, or the rate of adoption diffusion, what can be inferred is that the new technology will contribute to economic growth and prosperity because, by making existing factors more productive, it 'economizes' on scarce resources.

TRADE STABILITY (condition)

ACCESS (opportunity)

DISCLOSURE (information)

Why less transactions costs ??

The costs of coordinating economic activities



Why less transactions costs ??

Decentralised organizations and distributed governance to coordinate individuals into higher-level plans and goals

OPTIMISTE CONCLUSION

- More inclusion
- Less Costs
- More productivity
- Open Innovation

Challenge



- Institution (Law) : control the (risk of) interference on technology development
- Institution (Society) : collaboration and reputation
- Companies: some activities will disappear (intermediation) third parties:
 - Litigation and lawyers
 - Assets allocation
 - Banks
 - Registration structure

