



NATIONAL
SETTLEMENT
DEPOSITORY
MOSCOW EXCHANGE GROUP

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head of blockchain lab

BLOCKCHAIN BASED SERVICES: PRACTICAL EXPERIENCE

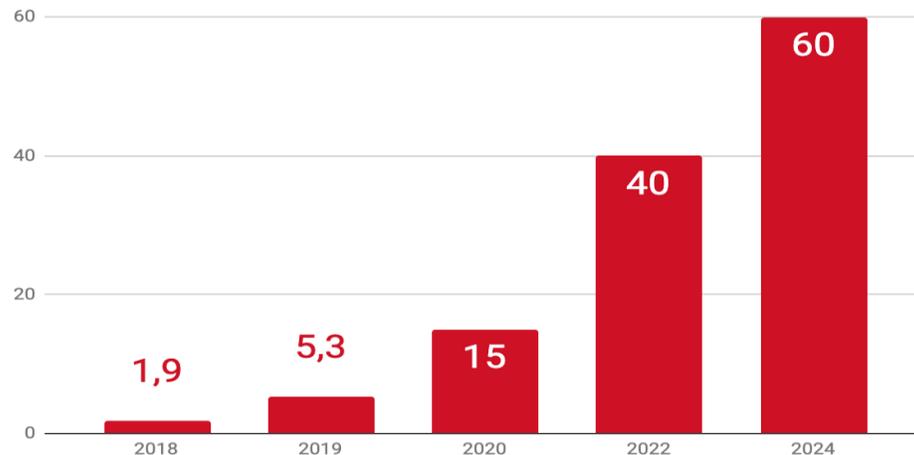
INTRO

- Blockchain lab found in 2015
- Hyperledger project members since 2016
- 9 blockchain projects done(from consulting and mentorship to pilot products)
- Only Russian company listed in Forbes Blockchain 50'2020

BLOCKCHAIN: EXPECTATIONS AND REALITY

It's promised to disrupt intermediaries, reduce reconciliation costs and increase quality of asset services

According to IBM, in 2024 total volume of investments in blockchain based solution will be over \$60 billion, added in 230% each year.



There is a lot of businesses trailing blockchain, but success rate of projects is still low

Only 4% from 398

Were successfully finished

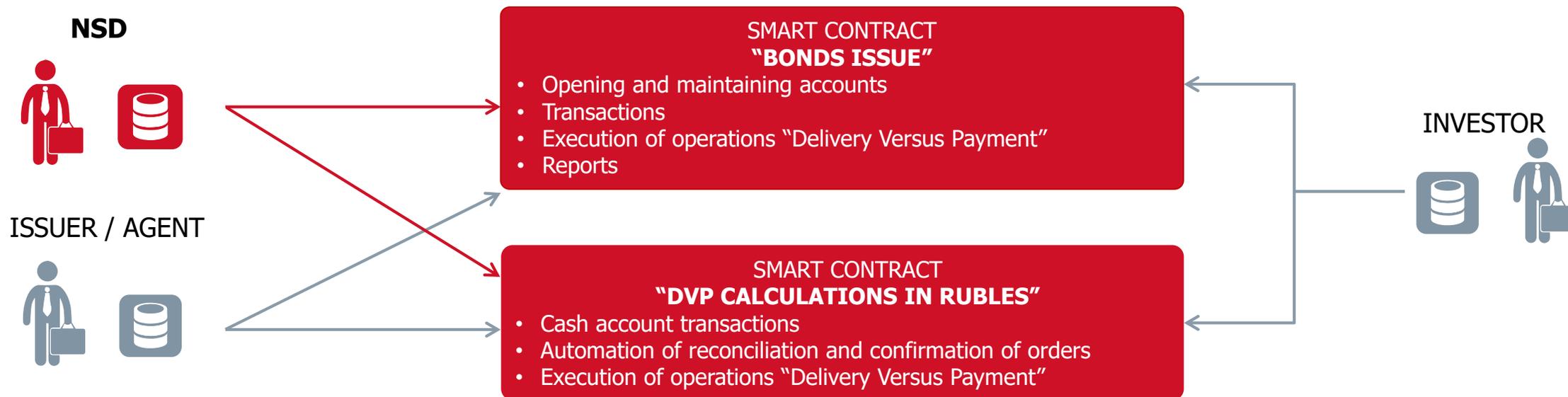
Nevertheless, everyone is trying to effectively cope with technological requirements and find the benefits of use.

* [Blockchain Market Shares, Market Strategies, and Market Forecasts, 2018 to 2024](#)

WinterGreen Research for IBM, 2018

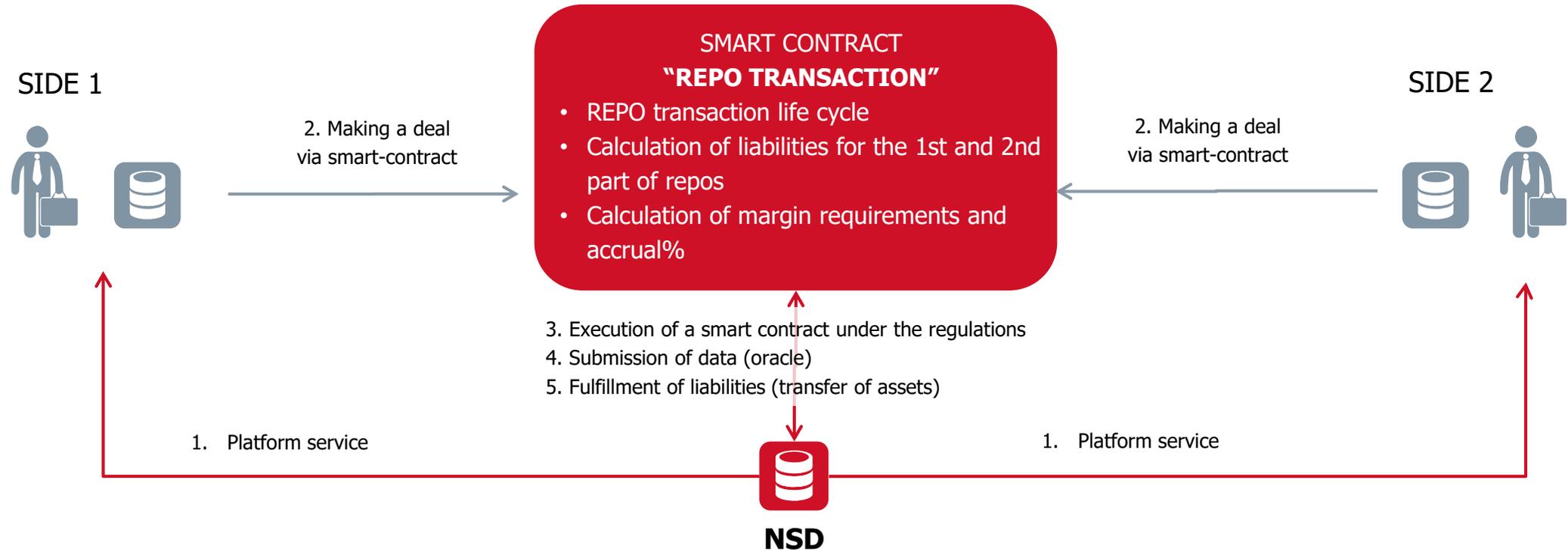
** Market Guide for Blockchain Consulting and Proof-of-Concept Development Services. Gartner, 2018

BONDS ON BLOCKCHAIN – BENEFITS?



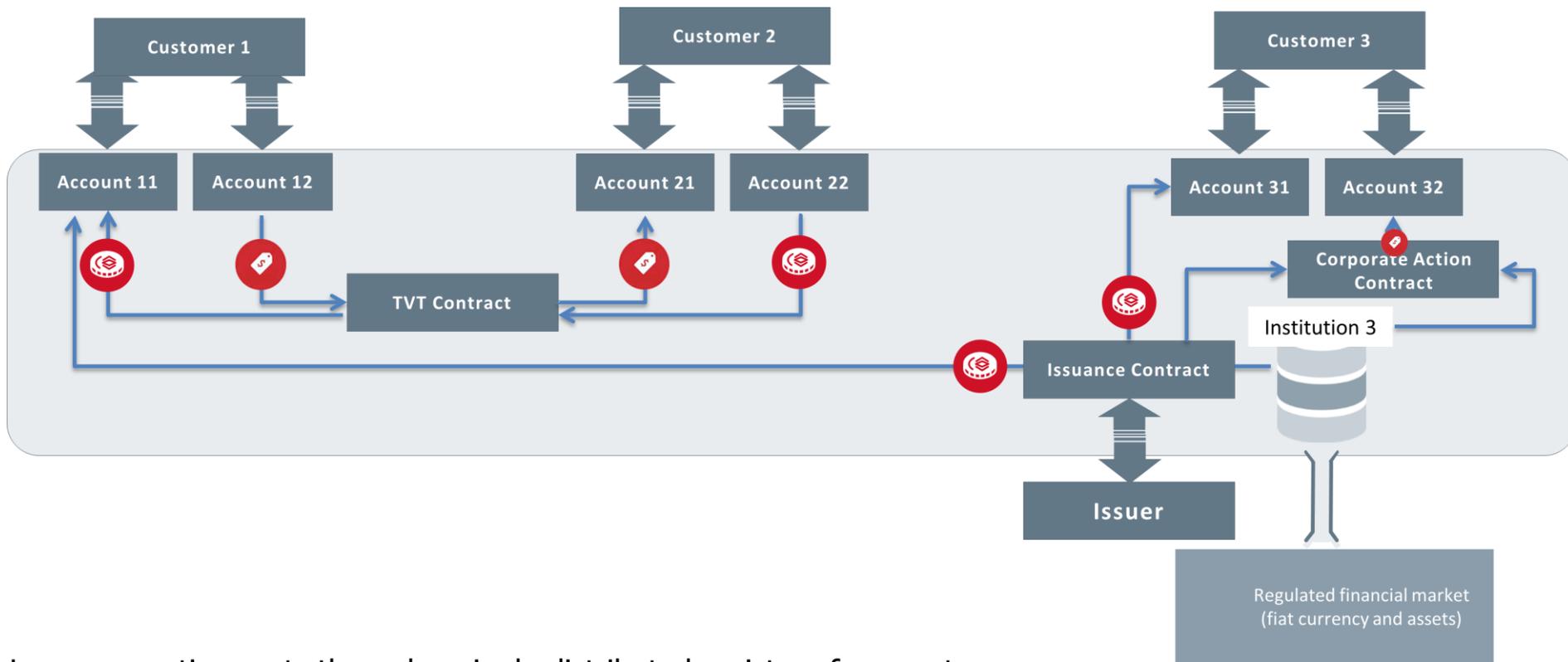
- Transition from workflow coding to coding of relationships between participants
- Guaranteed atomicity of transactions without involving a third party – using technology
- Elimination of information desynchronization risks – a single data source and the ability to integrate with document exchange
- Acceleration of business processes in those places where paper workflow is present

THREE PARTY REPO – BENEFITS?



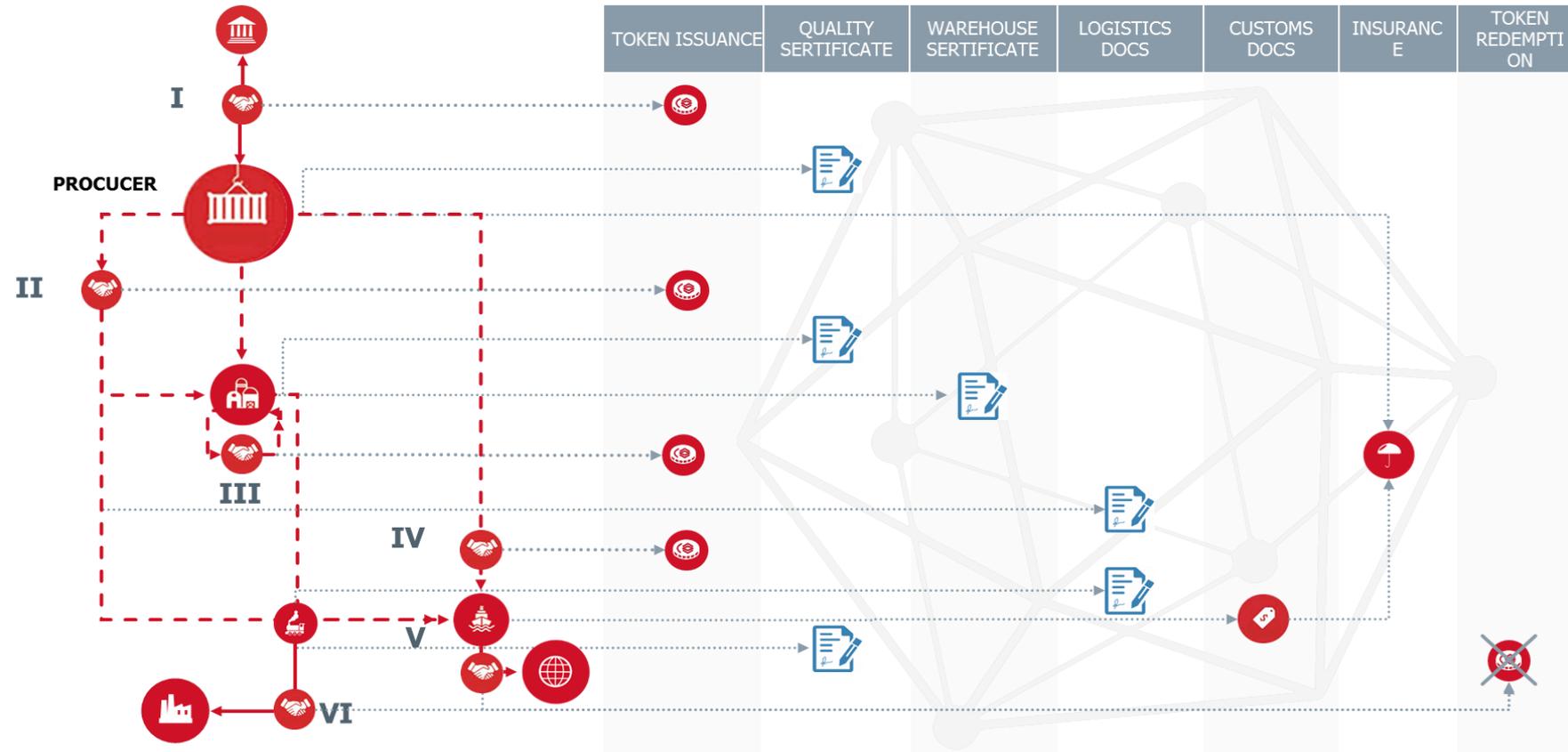
- Checking the Disintermediation Hypothesis
- Integration with centralized NSD systems
- Preparation of a legal framework for working with tokenized liabilities

DISTRIBUTED DEPOSITORY – BENEFITS?



- Lower operating costs through a single distributed registry of accounts
- Standard interfaces
- Opportunity to regulate the market online by imposing rules directly on the acceptance of operations by a distributed registry

COMMODITY MARKET – BENEFITS?



- Integration of supply chain management and trading / settlement functionality
- Full transparency and traceability
- Unified document exchange
- Ability to create international trading platforms

STANDARTS/WORKING GROUP EXPERIENCE

ISSA WORKING GROUP

- "Crypto Assets «Issuance, settlement, servicing, safekeeping and operational infrastructure» (TBD Sep, 2019)
- "Infrastructure for Crypto-Assets: A Review by Infrastructure Providers" (10/2018) > [PDF](#) 787 kB
- "Distributed Ledger Technology - Principles for Industry-Wide Acceptance", v1.0 (06/2018) > [PDF](#) 1.2 MB
- "General Meeting Proxy Voting on Distributed Ledger"; Product Requirements v2.1 (11/2017) > [PDF](#) 685 kB
- Cross-Reference Table aligning the Proxy Voting DLT solution with ISO 20 (11/2017) > [PDF](#) 395 kB

ISO COMMITTEE

- STANDARDS BY [ISO/TC 307](#) "Blockchain and distributed ledger technologies"



SWIFT

- ISO20022 DLT Edition (SWIFT)



TECHNOLGY HARMONIZATION

- Hyperledger Working Groups (TSC, Architecture, Performance & Scalability, etc)



HYPERLEDGER PROJECT

OPERATOR OF BLOCKCHAIN REGISTRY – WHY WE NEED IT?

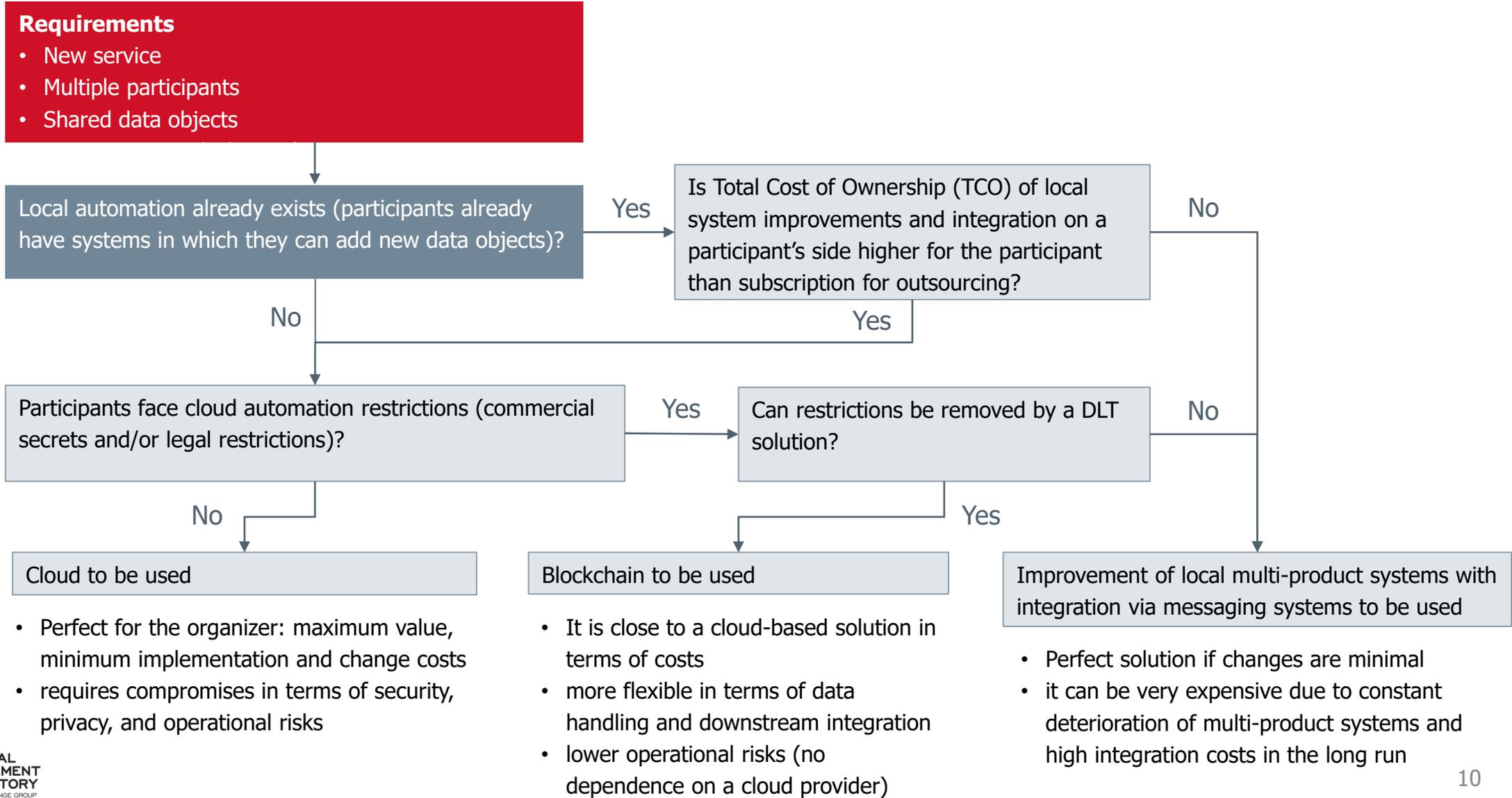
KEY FUNCTIONS

-  ensuring the reliability and security of the platform for the possibility of deploying financial services on it
-  setting of unified rules of make a legal basis
-  stimulating the technological development of the platform and building up its functionality
-  scalability

REQUIREMENTS

-  neutrality with respect to the services and operations of participants
-  sustainability, self-sufficiency, long-term development strategy
-  high level of business continuity, cybersecurity, corporate governance
-  financial responsibility

HOW TO CHOOSE BLOCKCHAIN IN RIGHT WAY?



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THANK YOU!



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