



MANUSQUARE



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Blockchain in Manufacturing

MANU-SQUARE Final Event

June 23rd @ 10:30 (CEST) OFFICIAL PUBLIC PRESENTATION OF MANU-SQUARE PLATFORM

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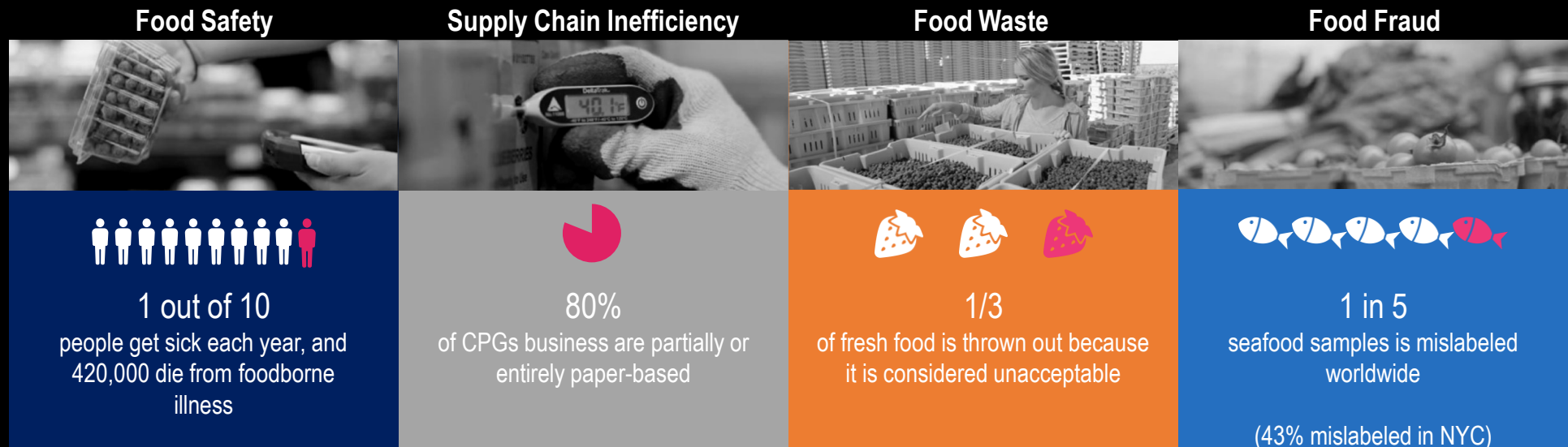
MANU-SQUARE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 761145

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Blockchain: not only cryptocurrency it is about trust

Only 1 in 4 consumers trust today's food ecosystem



The root of these issues, and many others, are lack of trust and transparency

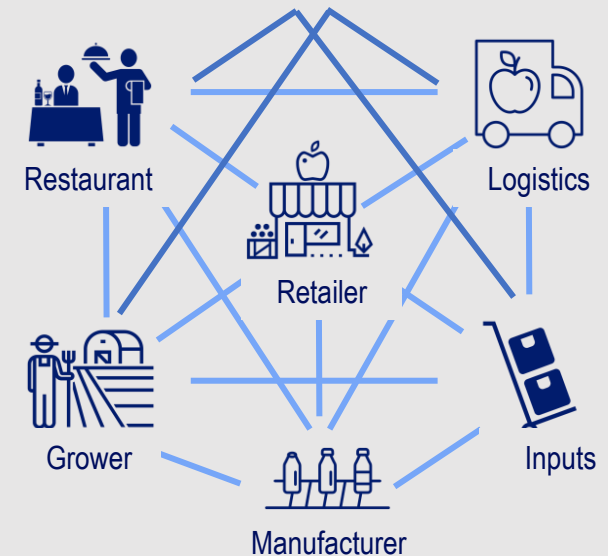
Sources: [World Health Organization](#), [Gravitas Study](#), [FAO of UN](#), [Oceana](#)

Today, traditional system constructs limit transparency

The Problem

- **Data is siloed** within each company and accessing it requires a request and time
- Exchange of information takes place between a pair of partners; to get information from a distant partner may require **intermediaries**, time, resources
- Most transactions are still **paper-based**, creating inefficiencies and opportunities for fraud
- Because everyone maintains their own record of transactions, **differences** take time and resources to reconcile

The food industry today

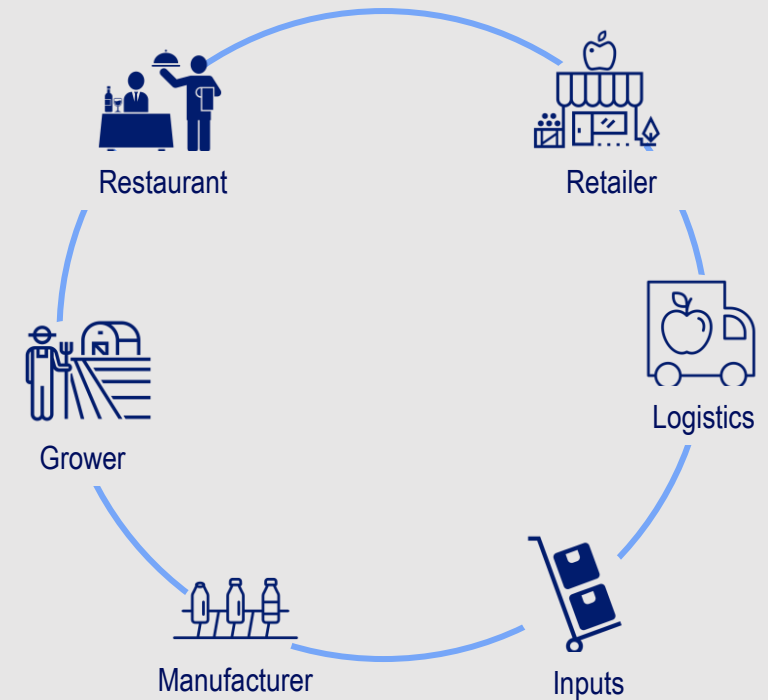


Blockchain transforms systems with trust and transparency

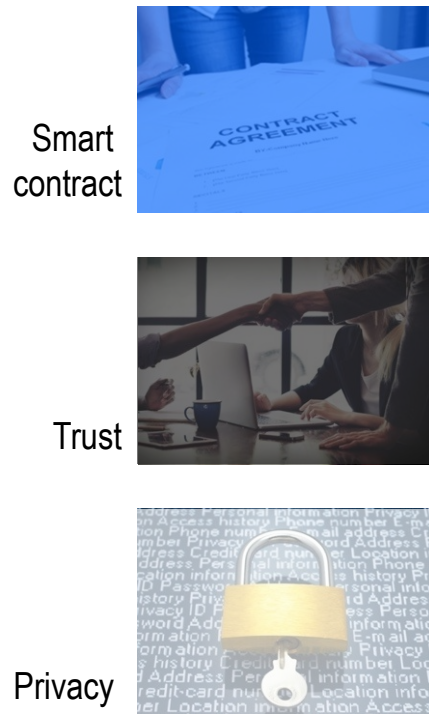
The solution

- Because blockchain provides an **independent data-sharing platform**, participants **trust** it
- Once data is shared in a single data-sharing platform, everyone has **instant transparency** into the transactions they are authorized to view; no intermediation required
- **Data immutability** creates an auditable record of all transactions, disincentivizing fraudulent behavior
- **Dispute resolution** from the shared ledger can be automated, saving time and resources
- **Address inefficient**, expensive, and vulnerable transactions across an ecosystem to protect and increase value

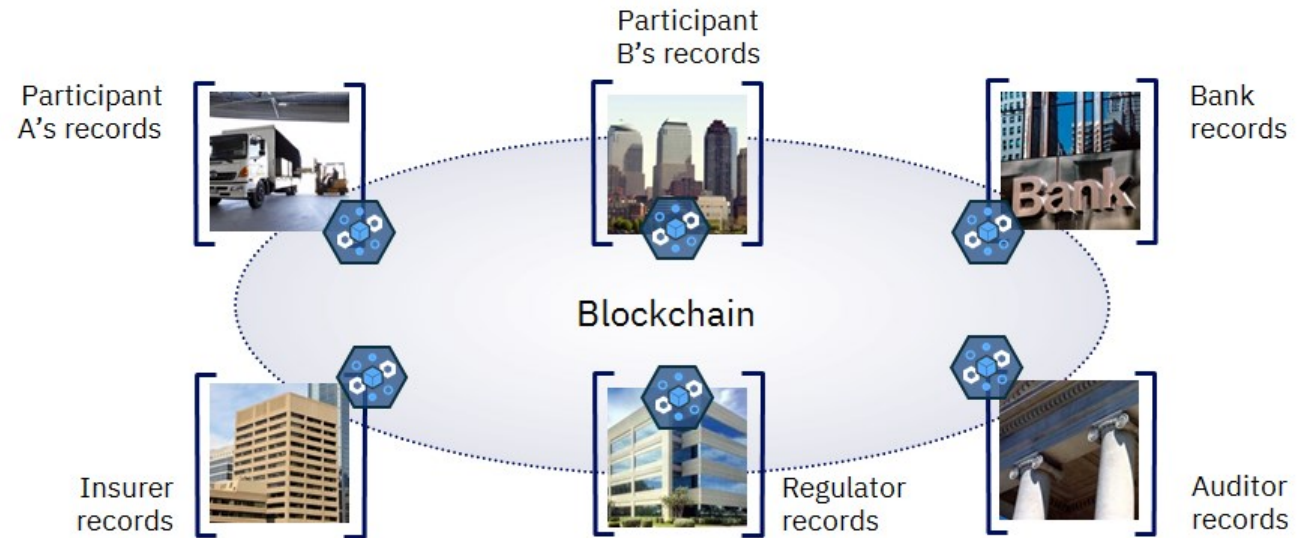
The food industry with blockchain



Blockchain – a High level view



A shared, replicated, permissioned ledger ...



... with consensus, provenance, immutability and finality

Vision

Provide a Blockchain based platform infrastructure for manufacturing and supply chain

Help track supply chain transactions reliably and transparently

Create a traceable permanent history of the product or interaction, throughout the lifecycle

Enhance trust in a trust-less environment



HYPERLEDGER

- Incorporate partners data including **IoT data**
- Ensure **selective visibility** of collaborations and data
- Provide accurate **real-time distributed visibility** fed by collaborators data
- Enable a **coherent and updated status of the supply chain ecosystem** including availability of production resources, flow of materials and components
- Based on the **HyperLedger Fabric Permissioned BlockChain** implementation

Major supply chain use cases for Blockchain



Shipping &
Logistics

Data traceability

Products
traceability

Production
environment
provenance

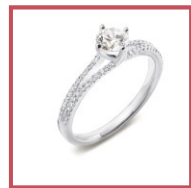


Provenance &
Serialization

Raw Materials
provenance

Supply chain
transparency

Asset tracking



Authenticity (Data
Provenance)

Identify fake
products

Regulatory
compliance

Blockchain Networks
in Production



Main uses in MANU-SQUARE: Trust, Traceability, Transparency

RFQ management

- Track the process from initiation through negotiation to the final decision
- All information exchanged digitally becomes a part of a permanent record kept and made available by the blockchain

Reputation management

- Support the traceability of the entire history related to the reputation of all involved entities at different points in time

Traceability of innovative ideas

- Keep track of the contributions of each participant and register the ownership of each such contribution

Thank you for the attention

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