



## Blockchain - Interoperability in Logistics

Panagiotis Zikos

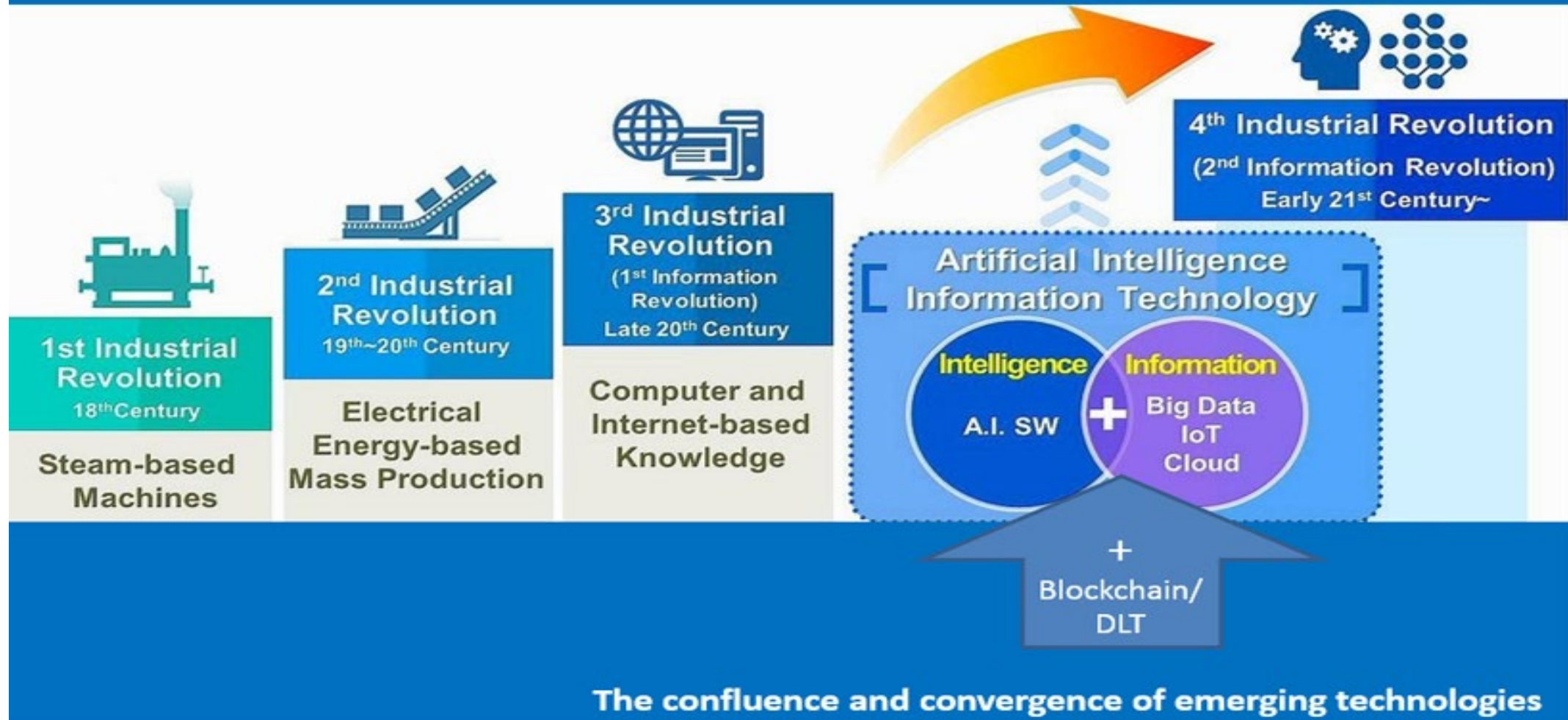
Co-Founder iLink New Technologies

ITS Hellas BoD member, HBH member

Dipl. Eng. NTUA, MSc CMU, MBA, MIT Blockchain

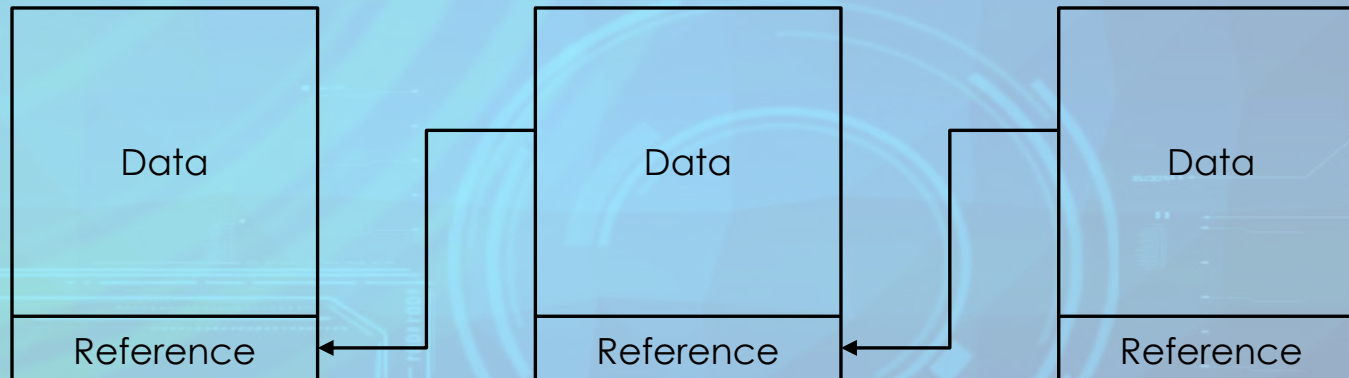
# Industry 4.0

# The Fourth Industrial Revolution



# What is a Blockchain?

A blockchain is a growing list of data blocks that are linked together.



- ☐ Decentralized
- ☐ Append only
- ☐ Immutable
- ☐ Digitally signed
- ☐ Timestamped

# Blockchain for business – BC 3.0...



## Shared ledger

Append-only distributed system of record shared across business network



## Cryptography

Ensuring appropriate visibility; transactions secure, authenticated and verifiable



## Consensus

All parties agree to network verified transaction

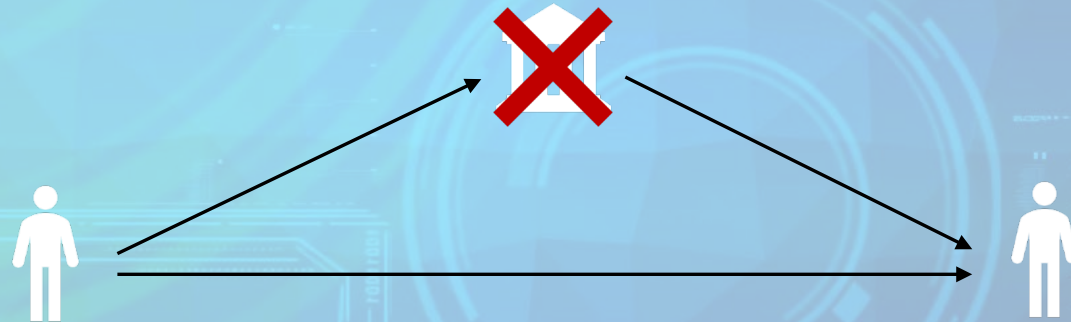


## Smart contract

Business terms embedded in transaction database and executed with transactions

# Why Blockchain?

Cutting the middleman



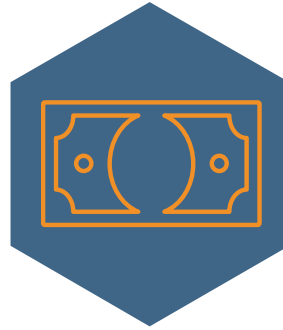
- ☐ Power of network
- ☐ Power of market
- ☐ Power of many

# Business benefits



## **Saves time**

Transaction time  
from days to  
near  
instantaneous



## **Removes cost**

Overheads and  
cost  
intermediaries



## **Reduces risk**

Tampering,  
fraud  
and cyber  
crime



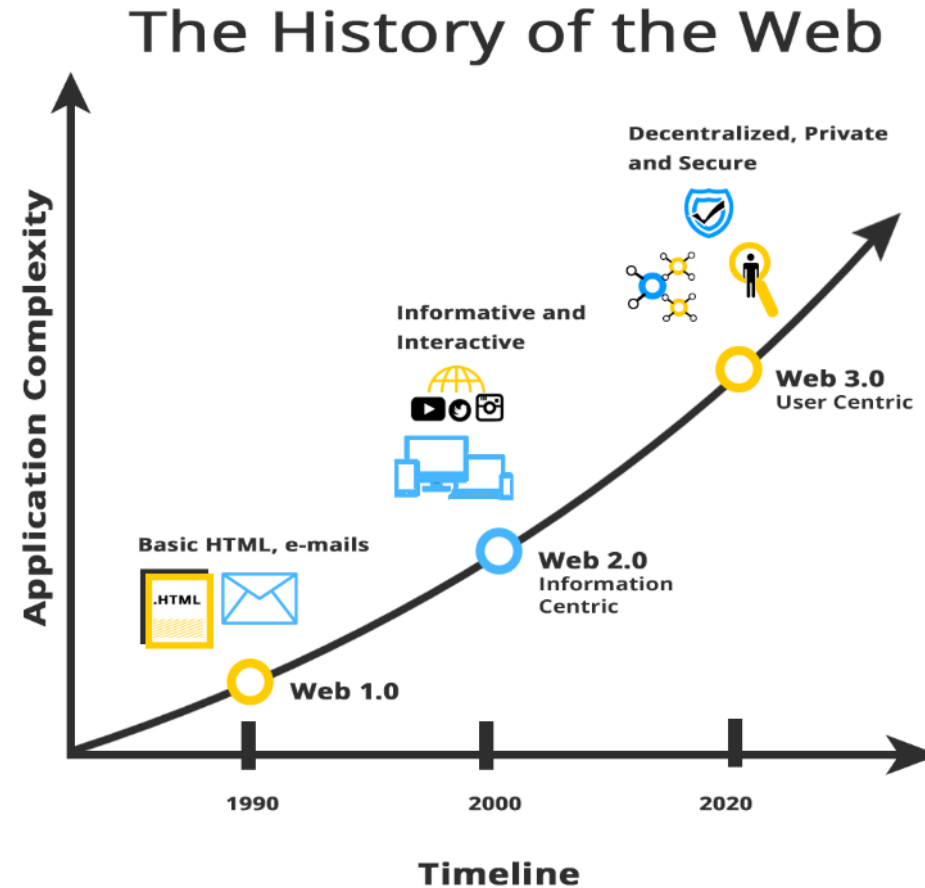
## **Increases trust**

Through shared  
processes and  
recordkeeping

# Web 3.0 – Make People Valuable Again

The new internet is:

- User-centric
- More secured
- More private
- Better connected





# Blockchain & IoT

- ❑ Security
- ❑ Tamper proof data
- ❑ Trustless
- ❑ Autonomous

## Applications:

- Vehicles
- Smart appliances
- Energy markets
- Ports
- Oracles
- Everywhere...





# Logistics 4.0



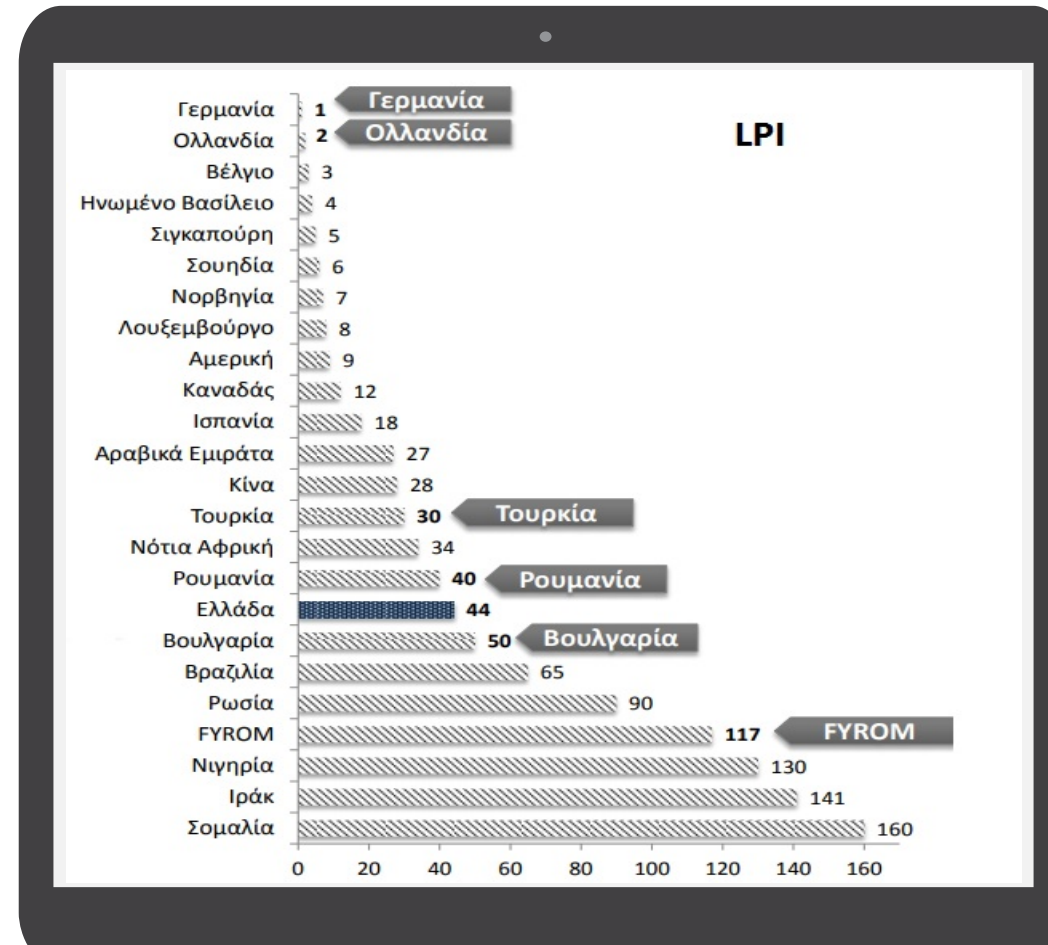
10% GDP



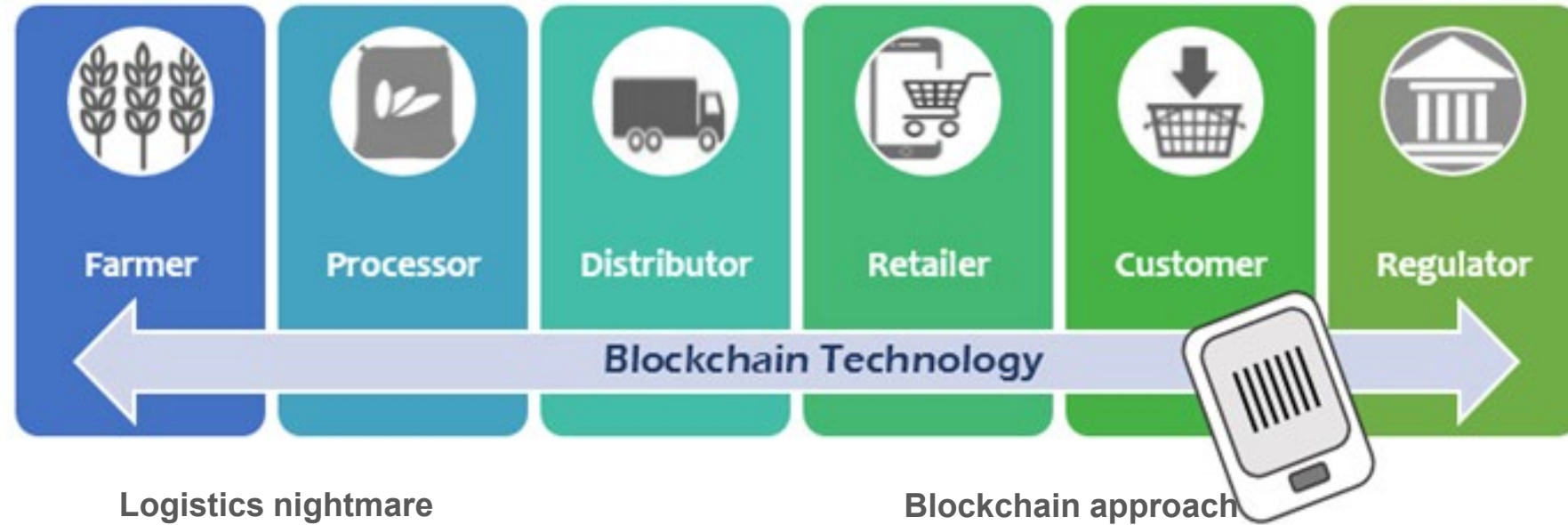
5% of total workforce



A strong ecosystem

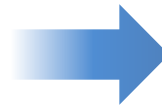


# Blockchain in logistics



## Logistics nightmare

- \$140b in **disputed** payments
- Admin cost -> 20% of TC
- Tons of **papers**
- Huge diversity of ERPs and SWs
- Demand & Supply **mismatch**
- Sensitive products **overlooked**



## Blockchain approach

- Smart contracts **Immediate** payments
- No **intermediary** is required
- Just **electronic** transactions
- Interoperability is guaranteed
- One **common** DLT
- IoT **transactions**

# Logistics 4.0 – Interoperability

