

# Partisia Introduction

- We build trust by design





Pioneer in  
privacy-preserving  
software solutions

45 experts, software and business developers



**Partisia  
Blockchain**

Public blockchain  
build by Partisia

Additional 15 marketing, software and  
business developers



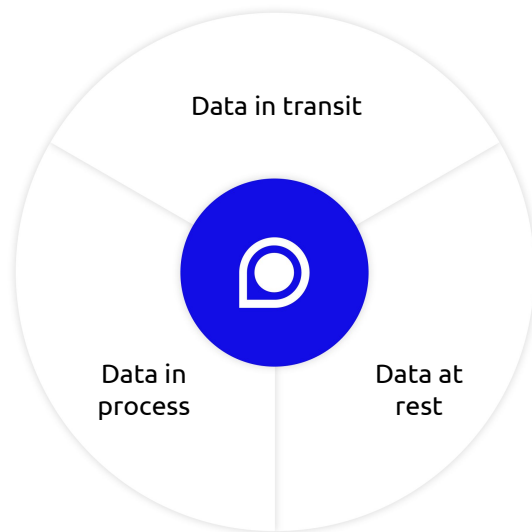
**SEPIOR**


Spinout from  
Partisia focused on  
key management

Acquired by Blockdaemon

# Raison d'etre

Protecting data in all stages  
"With no single point of trust"



Pioneered and used  
commercially since 2008 by  Partisia

# Value Proposition

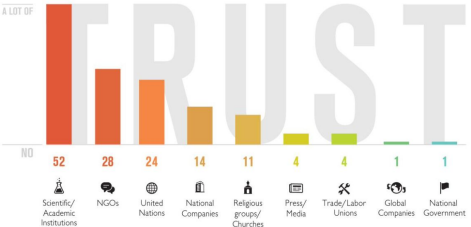
Applications & Infrastructure



# Collaboration and trust drives the data economy

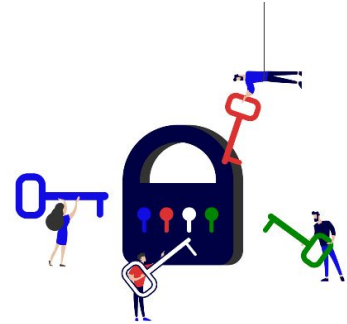


Net Trust\* in Institutions  
Average of 22 Countries, 2015



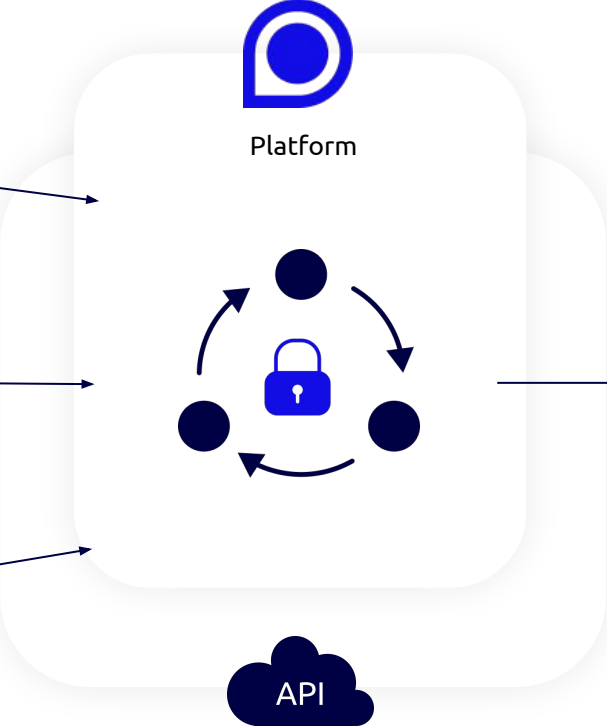
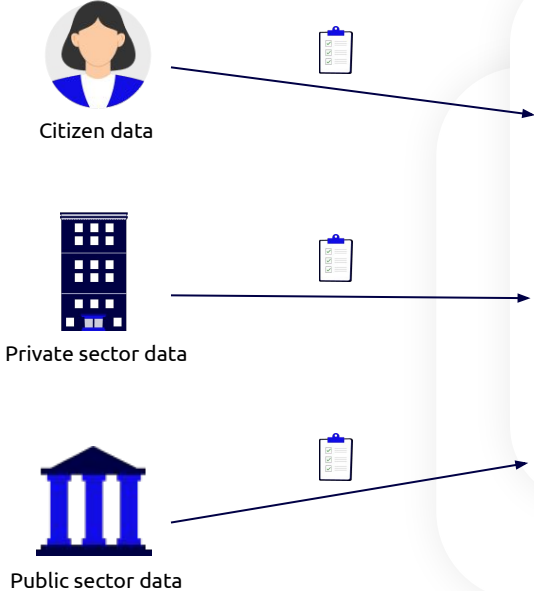
\*"A lot of trust" and "Some trust" minus "Not much trust" + "No trust at all"

More trust → More data → More value



# New paradigm on data usability

Decentral control & privacy



Central value by combining data

- Personalized advertisement
- Precision healthcare
- Personalized trading
- Next generation banking
- Next generation shipping
- Next generation insurance
- Statistics

# Neutral infrastructure – working across jurisdiction and organisations

## Confidentiality with no single point of trust

Cryptographically enforced privacy



Confidentiality



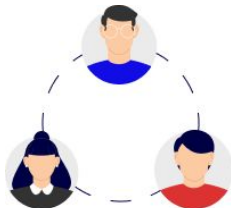
Integrity



Availability

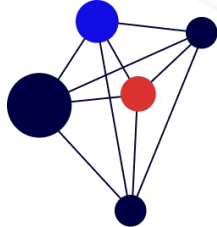
## Integrity with no single point of trust

Cryptographically enforced transparency and accountability

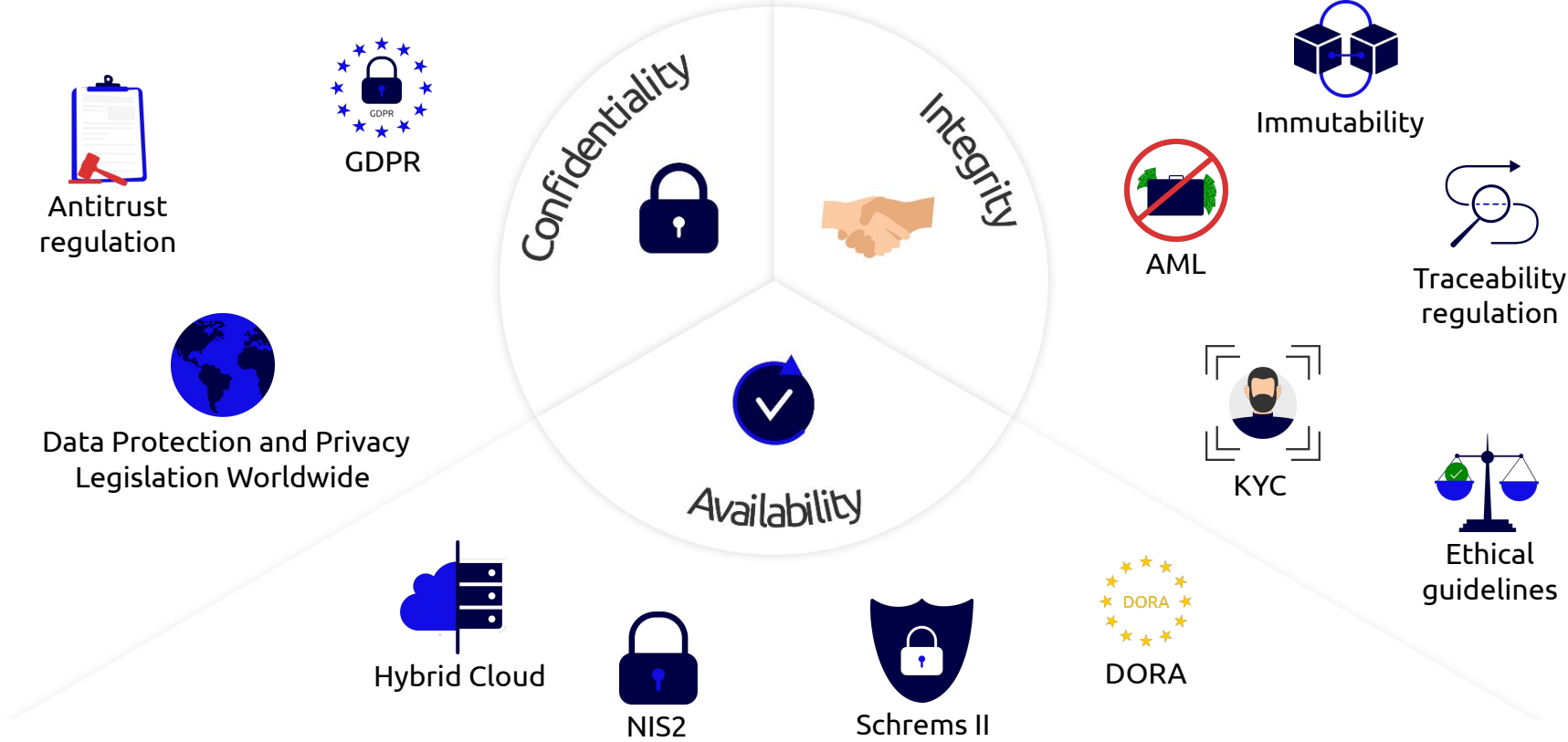


## Availability with no single point of trust

Cryptographically enforced robustness

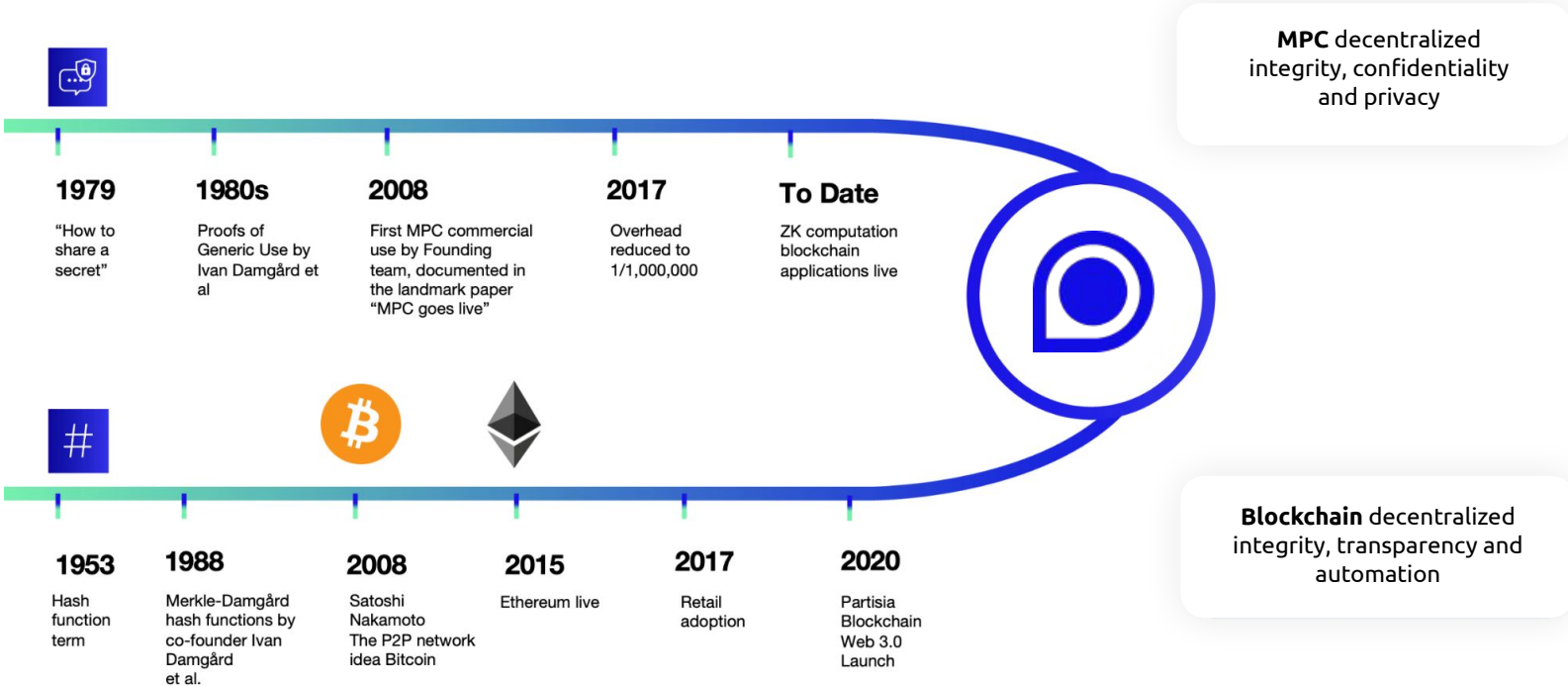


# Future proof compliant digital infrastructure





# Partisia is the history of combining MPC and Blockchain technologies



# Recent projects

## Partisia Platform projects



IoT platform - Partisia delivered MPC infrastructure for Bosch's future IoT analytics

### DATA for GOOD

DFG Platform for consent use of data build for and with the Data for Good Foundation



VPR Platform for combining public registers and other large data sets within a decentralized infrastructure



Partisia's PBC Platform for private deployed MPC and Blockchain services, used on commercial terms since 2019. (Fundraising USD 17M)



Partisia delivered the MPC infrastructure for different auction solutions



Partisia delivered MPC infrastructure for real-time financial order matching



Auctions for electricity, contract and spectrum rights

## Partisia public blockchain projects



Partisia builds blockchain and MPC infrastructure for privacy-preserving search and advertisement



A data exchange with approx. 300K users - Partisia build basic infrastructure (Fundraising USD 20M)



NFT based transparent fundraising for covid vaccination



Partisia's public blockchain infrastructure for MPC computation to be launches as a Web 3.0 public blockchain (Fundraising USD 55M, version 3 is live)



Partisia builds blockchain and MPC infrastructure for counterfeit medicine and healthcare support

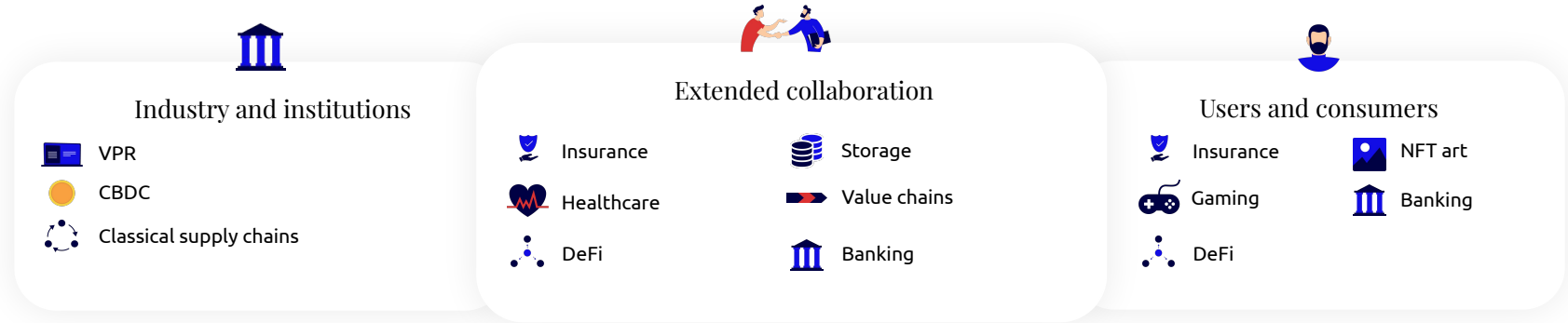


Partisia builds private Humanitarian Token Solution for Internal Committee of Red Cross.

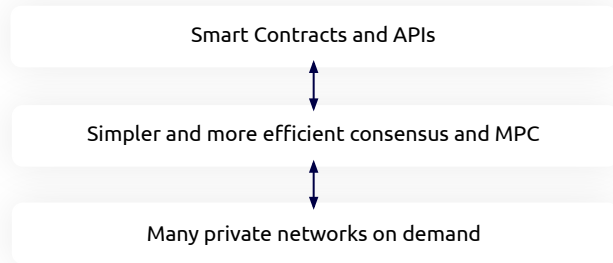


Partisia Builds confidential intelligence sharing of IoC (cyber breaches)

# Synergies - public & private operated platform

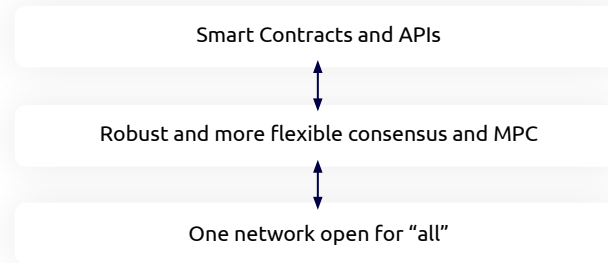


## Infrastructure as marketplace



**PARTISIA PLATFORM**

## Web3 infrastructure



**PARTISIA PUBLIC BLOCKCHAIN**

One platform,  
many opportunities



# One general platform, many services

## Confidential use of data



Pseudonymisation



Merging data



Create differential privacy



Create synthetic data



Descriptive statistics



Statistical tests



Regression



Federal statistics



AI models

## User control and data activation



Identification



Key management



Storage



Data access management



Consent



API for client side secret shared encryption

## Platform - robust and transparent



Auditability



User authorization



User authentication

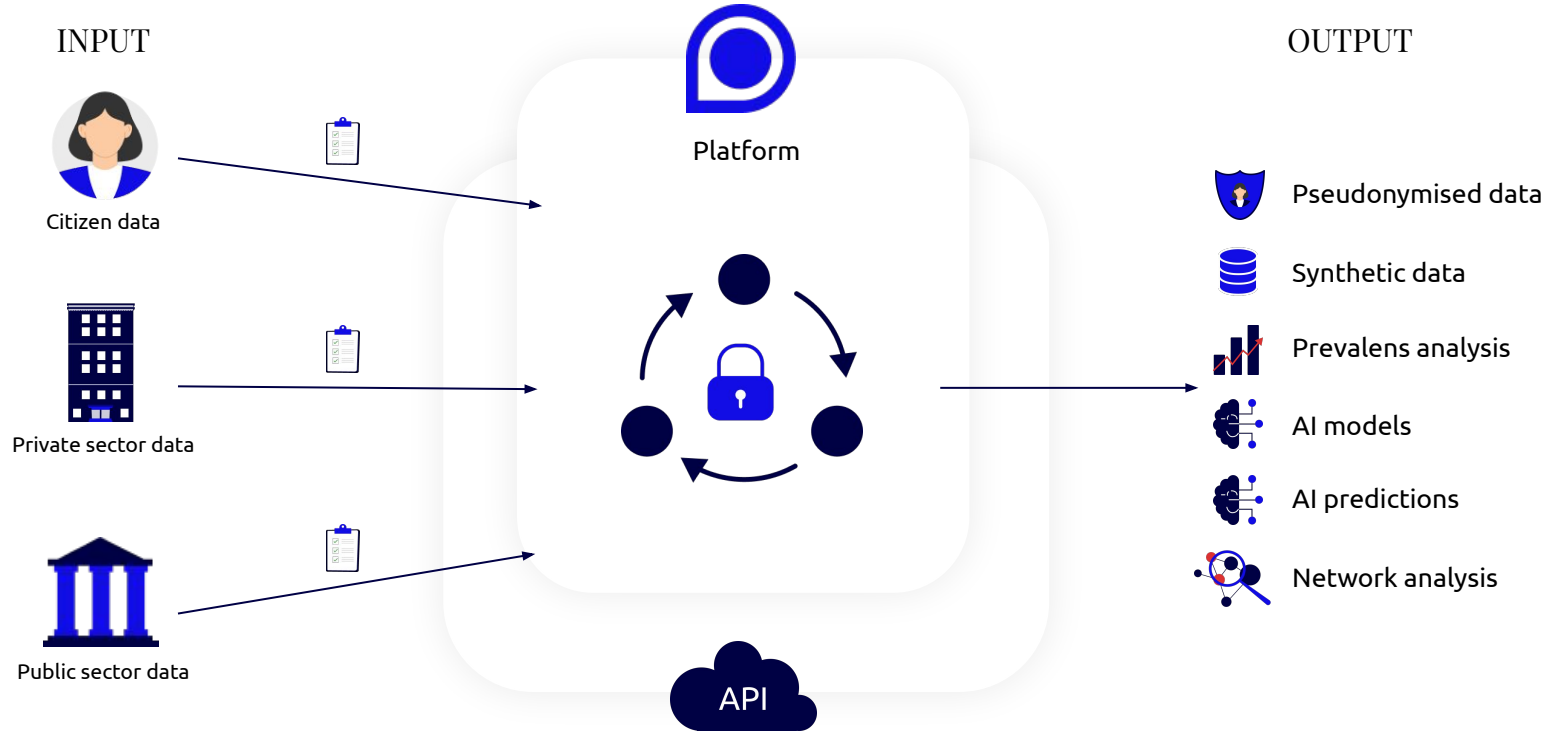


Immutability

# Only the agreed output is revealed - agree on output not input

Decentral control & privacy

Central value by combining data



# Marketplace



# Use cases examples - subset of services



Use case 1



Data access management



Consent



Pseudonymisation



Merging data



**CUSTOMER uses merged data**



Use case 2



Data access management



Consent



Pseudonymisation



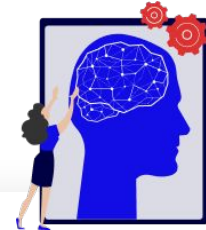
Merging data



Create synthetic data



**CUSTOMER uses synthetic data**



Use case 3



Data access management



Consent



Pseudonymisation



Merging data



AI models



**CUSTOMER uses/builds services**



# DFG standard service packages



## Consent as-a-Service



Consent



**CUSTOMER use existing data**



## Data as-a-Service



Data access management



Consent



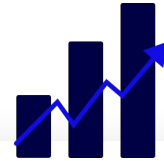
Pseudonymisation



Merging data



**CUSTOMER uses delivered data**



## Analytics as-a-Service



Data access management



Consent



Pseudonymisation



Merging data



MPC based statistics



**CUSTOMER script analysis and get results only**

# Revisiting public & private platform offerings

CUSTOMERS  
(some time us or partners)



## Industry and institutions

- VPR
- CBDC
- Classical supply chains



## Extended collaboration

- Insurance
- Healthcare
- DeFi
- Storage
- Value chains
- Banking



## Users and consumers

- Insurance
- Gaming
- DeFi
- NFT art
- Banking

## Infrastructure as marketplace

Confidential use of data		
Pseudonymisation	Create synthetic data	Regression
Merging data	Descriptive statistics	Federal statistics
Create differential privacy	Statistical tests	AI models
User control and data activation		
Identification	Storage	Consent
Key management	Data access management	API for client side secret shared encryption
Platform - robust and transparent		
Auditability	User authorization	User authentication
		Immutability

## PARTISIA PLATFORM

## Web3 infrastructure



- Poseidon** — Provable Fast Track Consensus
- Iris** — Complete Sharding
- Hermes** — Collateralized Token Bridging
- Athena** — Zero-Knowledge Layer
- Demeter** — MPC-as-a-Service
- Apollo** — Unified Public and Private Smart Contracts
- Mithra** — Market for Trust

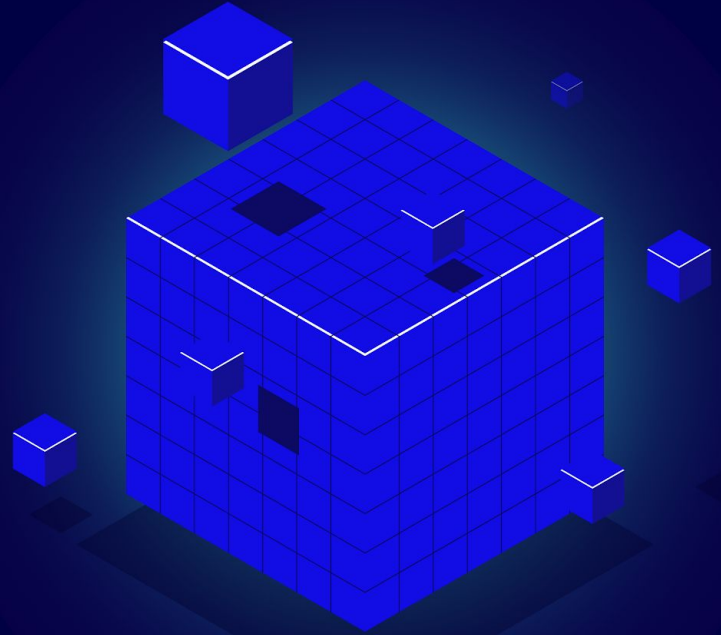
[Read more on Medium:](#)



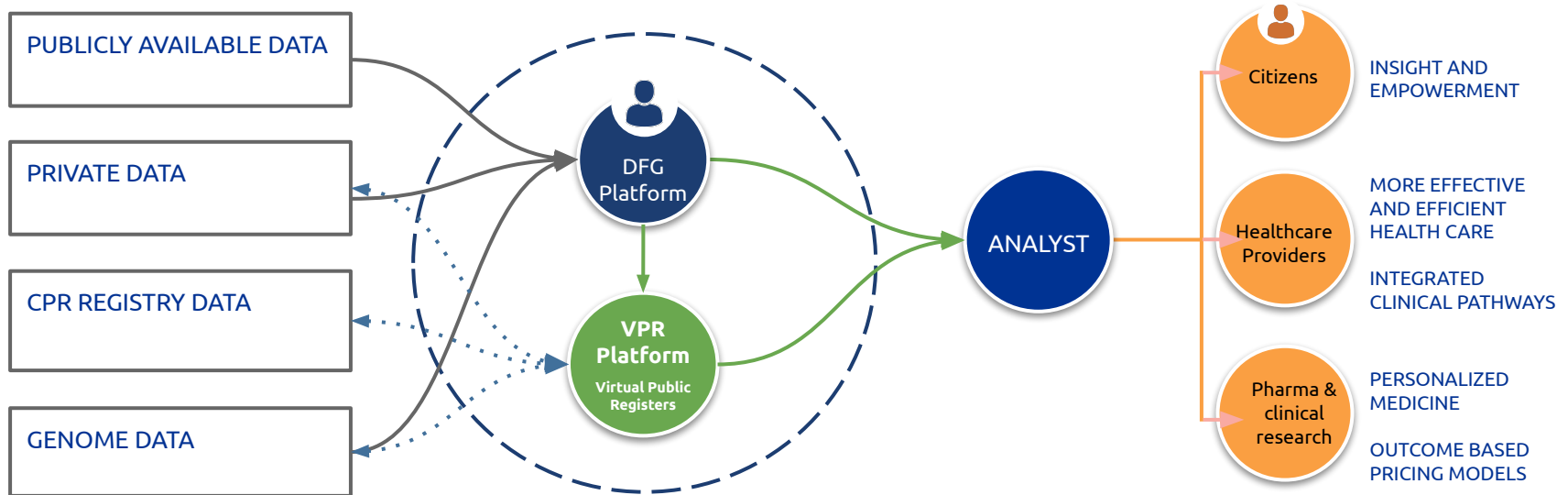
## PARTISIA PUBLIC BLOCKCHAIN

OUR CORE OFFERING  
(some time with partners)

# Examples of applications



# Public-private Data Platforms



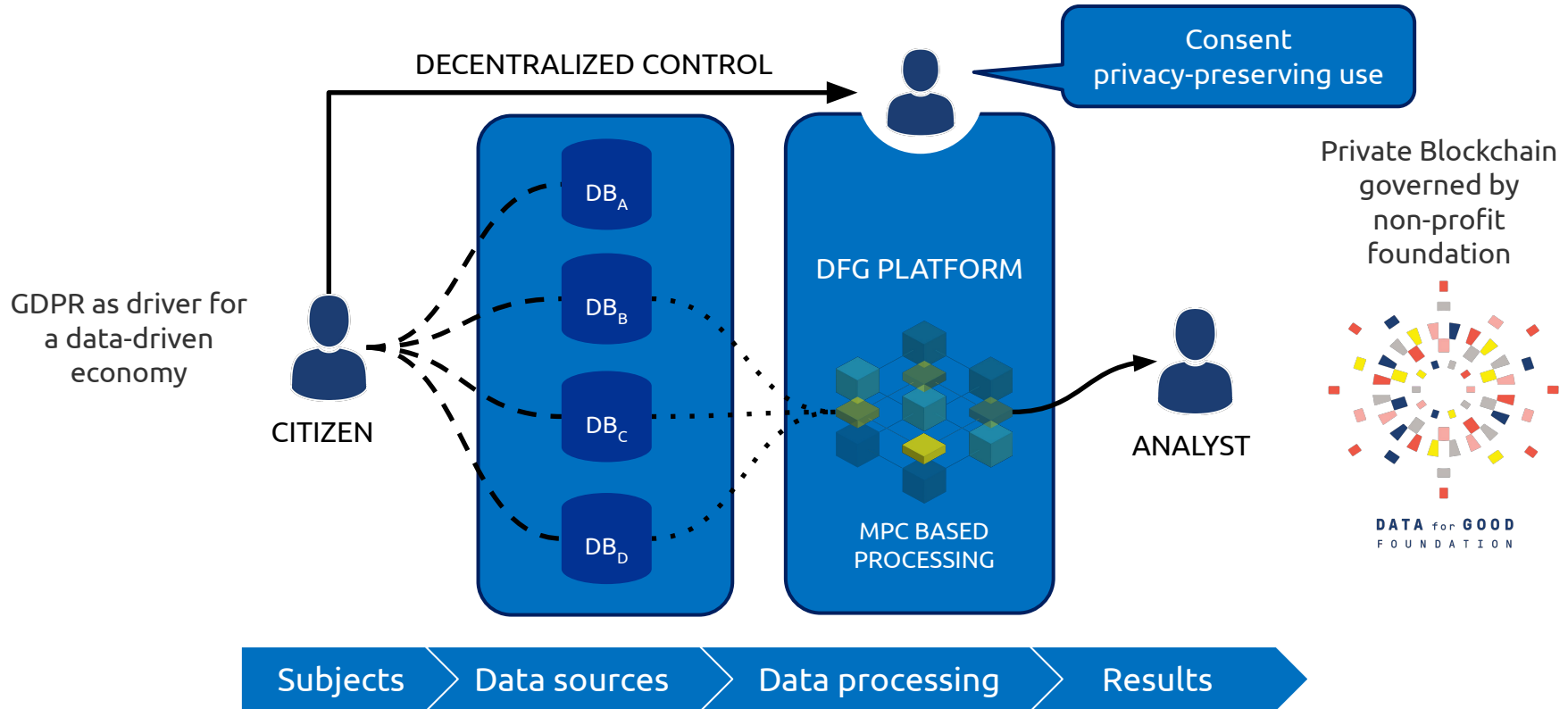
1. CONNECT AND COLLECT

2. MPC ANALYSIS

3. CLEAR TEXT ANALYSIS

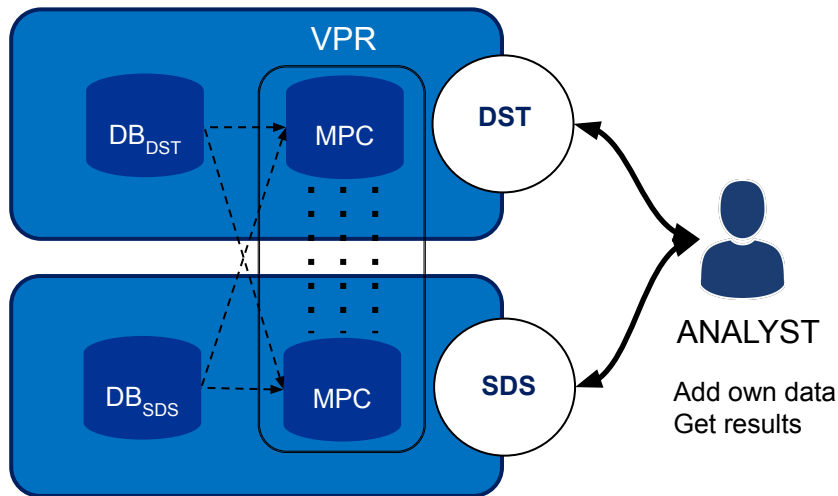
4. USE

# Data For Good - DFG Platform



# Virtual Public Register – VPR Platform

**Statistics Denmark** – up to 50 years  
of personal data socio-economic data



**Danish Health Data** – up to 50 years  
of personal health data

## NO DATA SHARING

Step 1: Establish virtual data set

- Secret sharing DST and SDS data completely anonymised data

Step 2: Use virtual data set

- Data sent to opponent is completely anonymised data
- Adversary tapping all communication learn nothing

Step 3: Share result

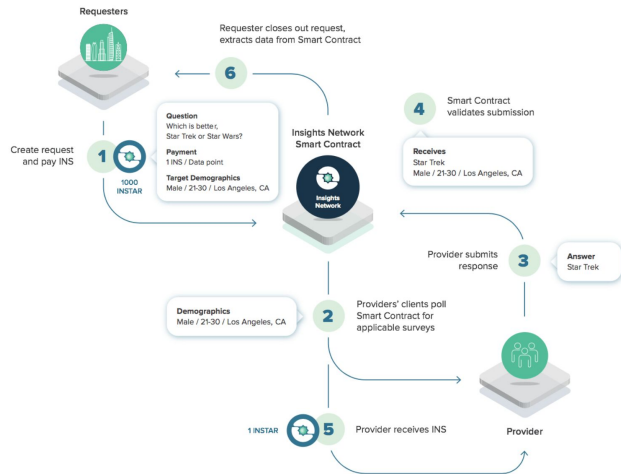
- Only approved result is shared with ANALYST

# A social network for data exchange



## Data exchange

- Return control to data-subjects



Collaboration between Insights Network and Partisia

## The solution

- Combine blockchain and MPC
- Efficient orchestration and execution of confidential matching of data with data
- A decentralized data broker

## Highlights

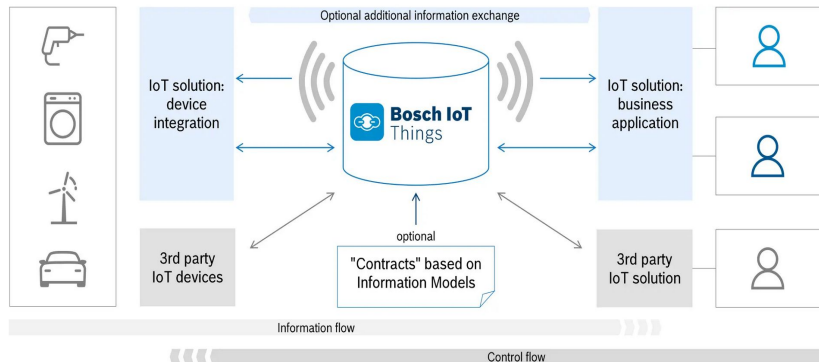
- Partisia built the infrastructure
- USD 20M raised for token economy
- Complete version live since Dec 2018

# Bosch IoT Platform



## IoT analytics

- Privacy-preserving analytics



Assisting Bosch in building a industrial-grade IoT platform with privacy-preserving computation capability

## The solution

- MPC based IoT analytics
- Generic platform for IoT

## Highlights

Partisia built MPC protocols for the infrastructure

- Collaboration since 2019
- Industry collaboration around open sourced platform

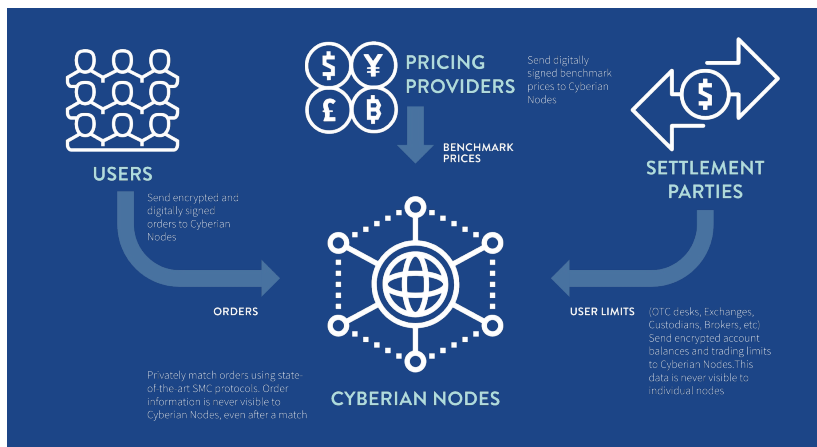


# Financial order matching & dark pools

## CYBERIAN

### Off-exchange matching

- Orchestrating matching pools



Joint-venture between Tora and Partisia (Every day over USD 3 billion is traded through the TORA platform)

### The solution

- Combine blockchain and MPC
- Efficient orchestration and execution of confidential order matching
- A decentralized dark pool

### Highlights

- Partisia built the infrastructure
- Live in Nov 2019
- Close strategic collaboration with Caspian

# Broker Auction



## Broker auction

- Orchestrating auction pools

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Built directly on Partisia Platform (Strong and experienced startup team)

### The solution

- Combine blockchain and MPC
- Efficient orchestration and execution of broker auctions for securities and currencies

### Highlights

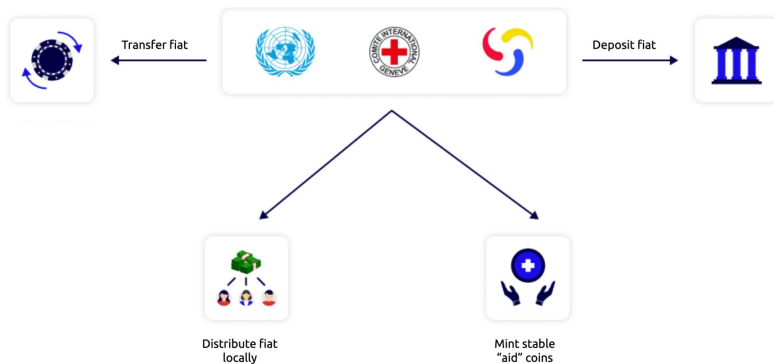
- Partisia built the infrastructure (the Privacy Blockchain)
- Pilot testing January 2020
- Live with initial customer

# Humanitarian Token Solution (or special purpose CBDC)



## Confidential and auditable e-cash

- As cash or for tailored purpose



Build for International Committee of Red Cross (ICRC) currently moving to field test.

## The solution

- Create a staple coin
- Protect the identity of the recipients
- Fully auditable

## Highlights

- MVP delivered successfully to ICRC
- Field testing planned for 2023
- Extensive work to replace "cash and vouchers" across multiple organisations including: ICRC, Global Fund, UNICET, UNITAR, Universal Postal Union

# Financial Fraud



## Financial fraud detection

- Orchestrating and improving fraud detection



Developed Proof-of-Concept with UK financial regulators and ongoing work with banks and regulators

### The solution

- Include more private information in detecting suspicious transactions using two-party MPC (across sender and receiver)
- Detecting crime rings with general MPC and statistics (facilitating collaboration between banks and law enforcement)

### Highlights

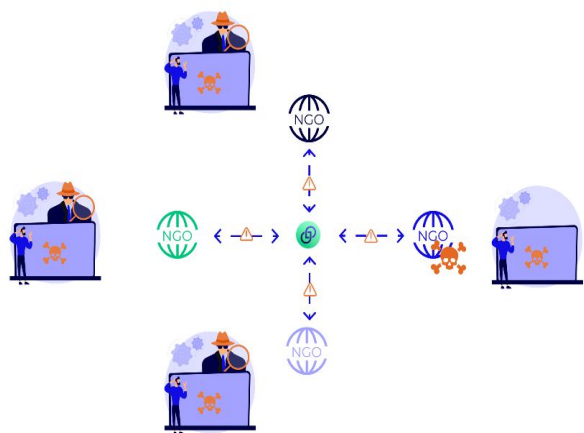
- PoC developed in 2019
- Ongoing work with regulators and banks

# Confidential sharing cyber breaches



## Sharing Indicators of Compromises (IoC)

- Orchestrating MPC based intelligence sharing



Developed Proof-of-Concept with the cyber peace institute organizing the help NGO combating cyber security breaches

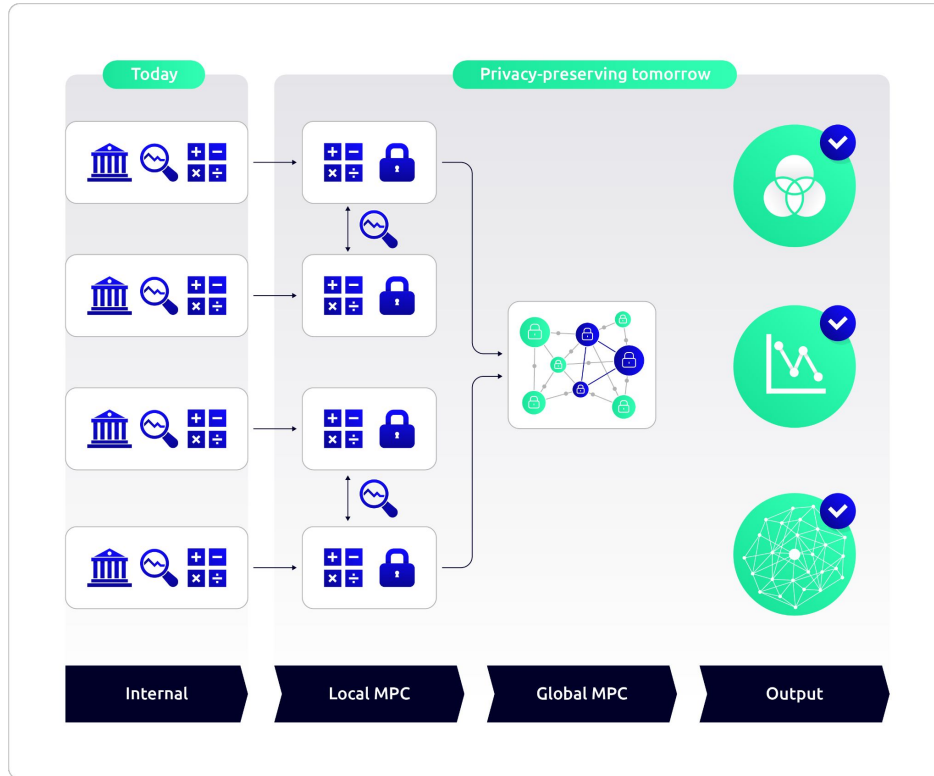
### The solution

- Sharing locally collected IoCs and confidential matching across NGOs
- Reporting on IoC to enhance NGOs handling of cyber breaches

### Highlights

- Delivered PoC in 2023
- Close collaboration with NGOs to bring the product to real use
- Stepping stone to develop general collaborative logging service

# Generic network assessment



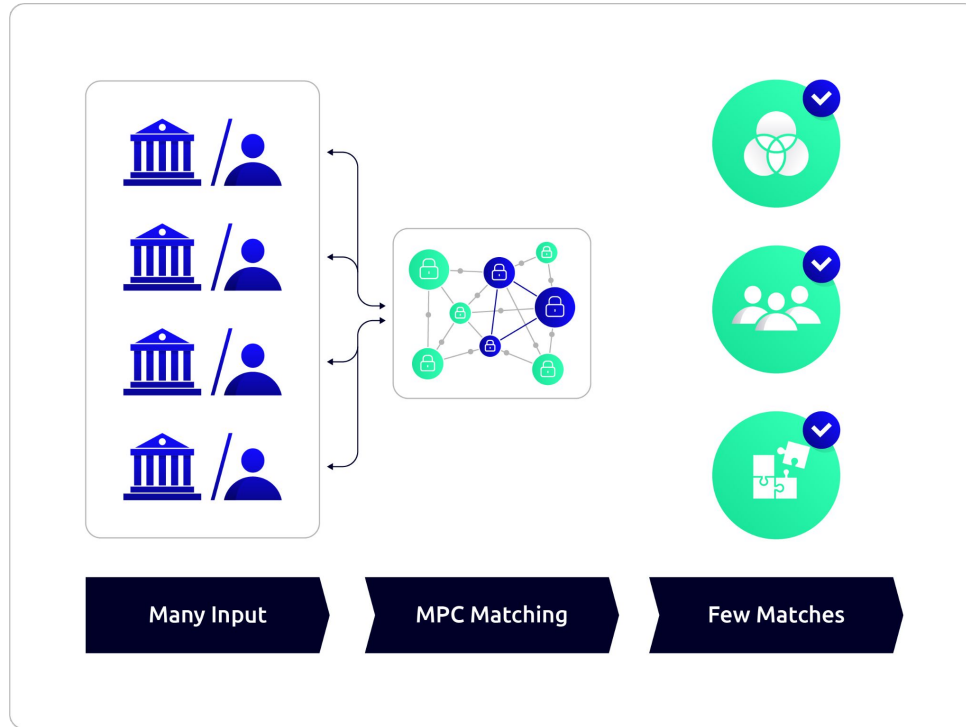
## Privacy-preserving fraud detection:

- Bank own assess of transactions
- MPC based assessment across sender and receiver
- Global MPC based mapping of fraud in real time

## Privacy-preserving cyber security assessment

- Inhouse assessment
- MPC based local assessment across entities
- Global MPC based mapping for breaches real time

# Generic matching



- Financial order matching
  - Buyer meet seller
  - Execute trades
- Bidding agents
  - Agents match potential trades
  - Execute trades
- Whistle blower solutions
  - Whistle blower raise claim
  - Stepwise confidential process assess claim
- Mergers & Acquisitions
  - Company meet company
  - Stepwise confidential process assess match



# Contact

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