

THE PISTIS SOLUTION

In PISTIS the way data is managed, shared and monetised is renewed, combining solutions from diverse domains (like data management, analytics, finance, crypto, security) through an orchestrated architecture which can accommodate the stakeholders' needs and realise the broader concept of the European Data Spaces for highly efficient and trustworthy data sharing and monetisation.

The overall PISTIS platform is envisioned as a federated environment of collaborating stakeholders, governed by a central cloud-based entity. As such, PISTIS constitutes a Data Space where stakeholders can manage their own data and exploit a central catalogue that allows them to use data monetisation and contract execution services.

In more detail, PISTIS is composed of two different parts:

- **The PISTIS Marketplace:** the global instance of the PISTIS Cloud Platform, available at <https://www.pistis-platform.eu> where the catalogue of all available data assets of the different stakeholders is hosted, and is the place where data acquisition contracts are established

- **Multiple local PISTIS Data Factories:** these are environments deployed privately by each stakeholder, taking part in the PISTIS network and realise the notion of data sovereignty and control, as the data of the network stakeholders resides in these factories and never leaves their premises without a contract. It is noted that the actual flow of data (e.g. of the "data assets") is performed only via a peer-to-peer communication channel set-up between the different PISTIS Data Factories of the data provider and of the data consumer, thus increasing the overall security and trust of the PISTIS platform and catering for data sovereignty and privacy.

THE PISTIS USERS

The PISTIS solution is for organisations and SMEs which already have their own infrastructure to manage data, not for individual users.

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Project website
www.pistis-project.eu



Promoting and Incentivising Federated, Trusted, and Fair Sharing and Trading of Interoperable Data ASsets

Consortium



THE PURPOSE

PISTIS develops a reference federated sharing and trading platform for secure, trusted, and controlled usage of proprietary data assets and data-driven intelligence.

The project advances available procedures and technologies, including federated data discovery and sharing, distributed ledger technologies (DLTs), data non-fungible tokens (NFTs), and AI-driven data quality assessment and monetisation.



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DATA PROVIDER



DATA CONSUMER

BENEFITS

- Increased revenue
- Expanded customer base
- Improved industry position
- Efficient data handling
- Enhanced data quality
- Secure data sharing
- Trusted data environment
- Simplified contract management
- Regulatory compliance
- Data sovereignty

Data registration and processing



Data management & assessment

- Data check-in
- Data transformation
- Data insights generator
- Semantic enrichment
- Analytics engine
- Data quality assessment



Security, trust, & privacy preservation

- Anonymizer
- Lineage tracker
- GDPR checker
- Searchable encryption
- Encryption/decryption engine

Data publication



Data & metadata storage

- Data factory catalogue
- Data PISTIS catalogue
- Matchmaking service



Data monetisation

- Access policy editor
- Asset description bundler
- FAIR data valuation service
- PISTIS digital DLT-FIAT wallet
- Data investment planner
- PISTIS market insights
- NFT generator
- Monetisation plan designer
- Data usage and intentions analytics

DATA EXCHANGE



Transaction services

- On/off platform contract inspector
- Transaction auditor
- Smart contract template composer
- Smart contract execution engine
- Data factory user wallet



Ledgers

- PISTIS monetary ledger
- PISTIS data ledger



System services

- Data factories registrant
- System and activities monitor



AI & interoperability repository

- PISTIS models repository
- Data factory ML models repository
- AI model editor



Identity & access management

- Identity manager (including several sub-components)

Data discovery and acquisition



Data discovery

- Factory data storage
- PISTIS data factory connector
- PISTIS data catalogue
- Distributed query engine
- Matchmaking services



Data transfer

- PISTIS data factory connector
- Smart contract checker



Data acquisition

- Smart contract checker
- PISTIS digital DLT-FIAT wallet
- Encryption/decryption engine
- Smart contract execution engine
- Data factory user wallet

BENEFITS

- Improved operations
- Data-driven insights
- Data integration (predict and mitigate)
- Easy access to different data
- Single source of truth (SSOT)
- Increased transparency on data control
- Secure & compliant data sharing
- Faster innovation
- Data sovereignty

DEMONSTRATOR HUBS

The demonstrator hubs aim to establish a data-sharing ecosystem among key stakeholders to unlock new value and revenue streams through integrated use cases.

Mobility and Urban Planning



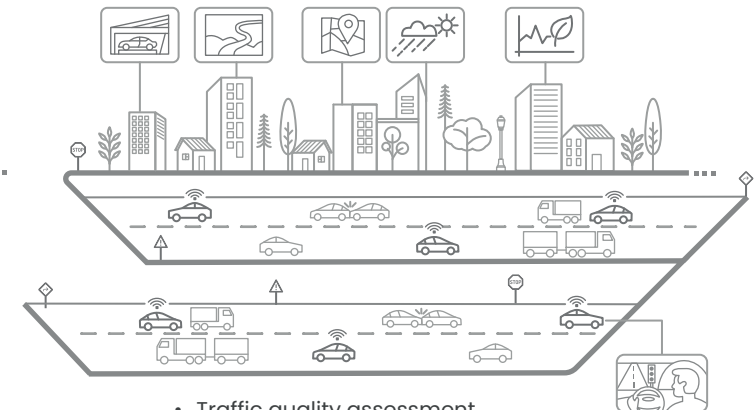
- Baggage handling management
- Transfer passenger management
- Aircraft turnaround process
- Public transportation planning support
- Insights for city commercial businesses

Energy



- Increase the hosting capacity of the grid
- Investment deferral
- P2P trading between users or energy communities
- Monetisation of data owned by the different actors to third parties for use as services over energy

Automotive



- Traffic quality assessment
- Driving style & risk assessment