

UNLOCKING THE VALUE OF DATA TOGETHER

THE CASE FOR COOPERATIVE DATA ECOSYSTEMS

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A NEW DATA ECONOMY BUILT ON ECOSYSTEMS

Cooperative ecosystems

Organisations work together to solve global problems and advance individual goals

Trust-building mechanisms

Cooperate on ad-hoc basis in low trust scenarios, and evolve cooperation with trust

Value-driven relationships

Relationships form beyond simple profit motivation, focusing on additional value, to solve global challenges with social responsibility in mind



THE POWER OF DATA SHARING

Umbrella expression

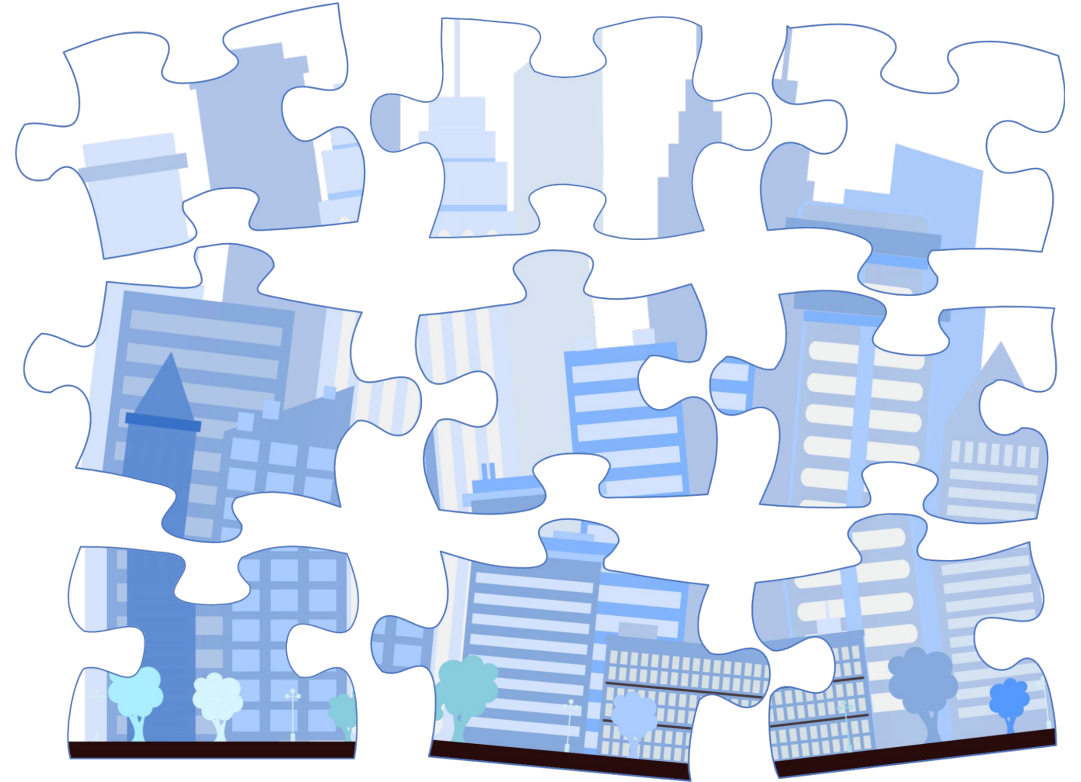
- Raw data
- Information (processed data)
- Insights (contextualised data)

Diverse data sources, owners & organisations

- Government
- Private sector
- Academia, ...

Diverse boundaries

- Geographical
- Legal
- Organisational



THE POWER OF DATA SHARING

Selective data sharing

Strategic sharing with privacy preservation and tailored to the use cases

Data sovereignty

Retain control and ownership over data, and metadata, to balance cooperative needs with compliance

FAIR data principles

Findable, Accessible, Interoperable and Reusable: lower barrier to value across multiple contexts



SOCIO-TECHNICAL CHALLENGES

Evolution of TRUST

Gradual development of confidence in technology and parties within the ecosystem

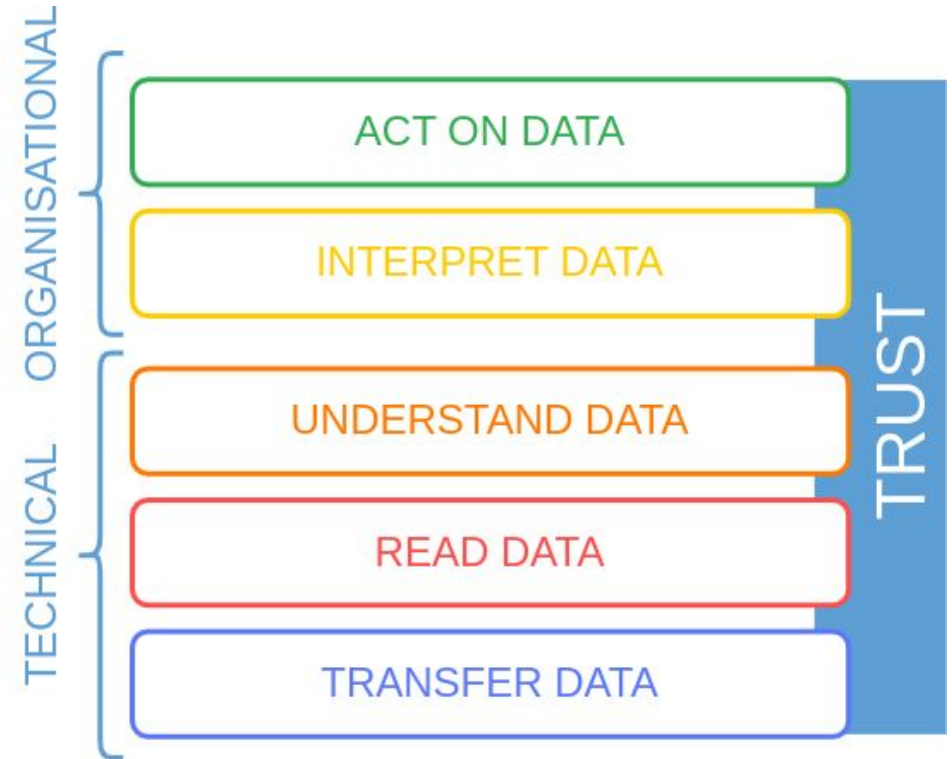
Technology

Innovate with what we have, to address technical challenges and enable the solution to human challenges



THE INTEROPERABILITY IMPERATIVE

- Establish trusted and autonomous interoperability
- Enable any type of ecosystem
- Lower barriers to entry
- Address human challenges



THE INTEROPERABILITY IMPERATIVE

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Virtualisation

Decouples access to data sources
to alleviate sharing concerns

Sovereignty

Grants control over data ownership

Symmetry

Fosters equitable data-sharing relationships

Decentralisation

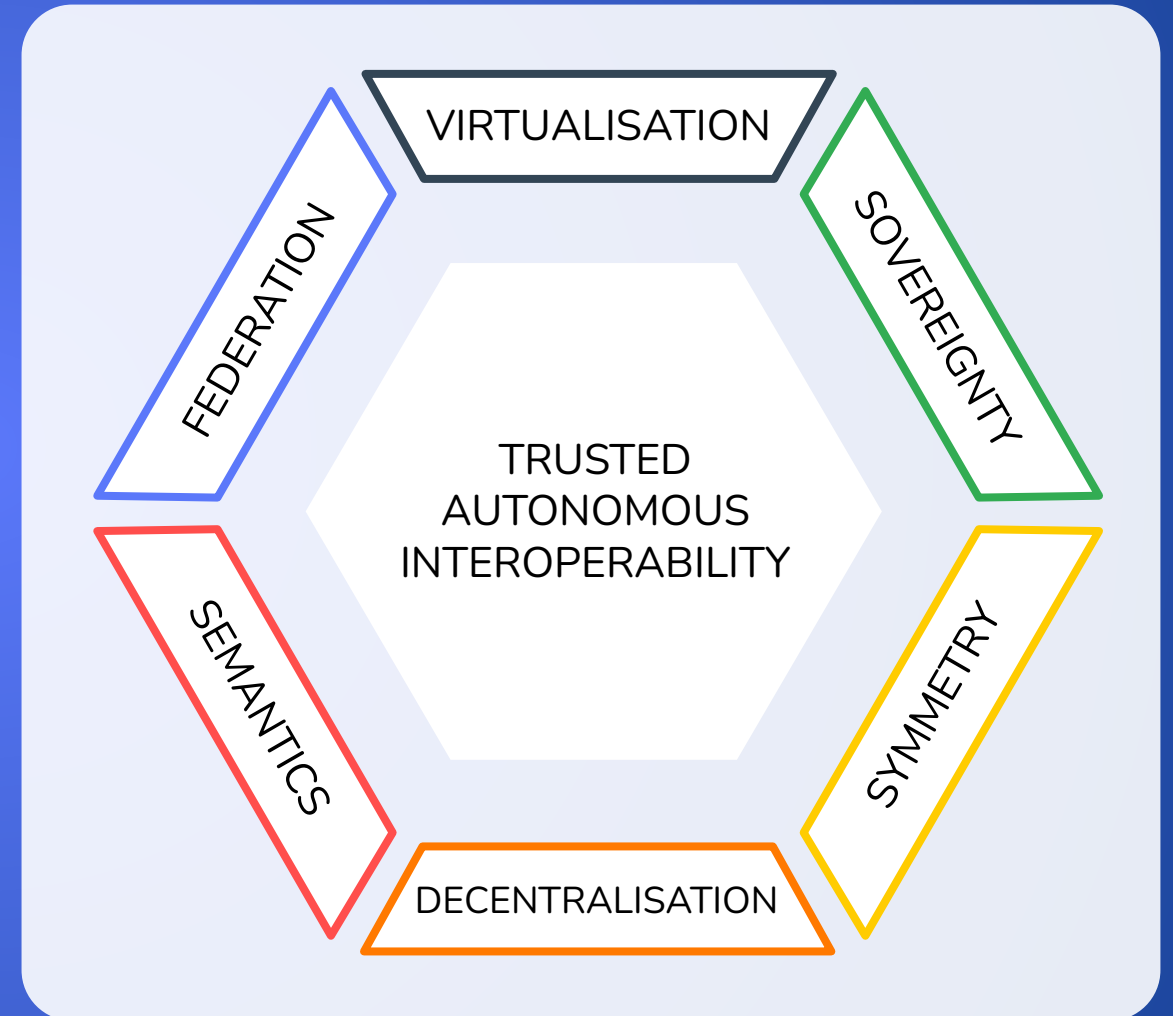
Empowers distributed data governance

Semantics

Ensures M2M autonomous interoperability

Federation

Unites data-sharing entities for collective strength



EXPANDING TO A NETWORK OF NETWORKS

Mimicking socio-cultural patterns

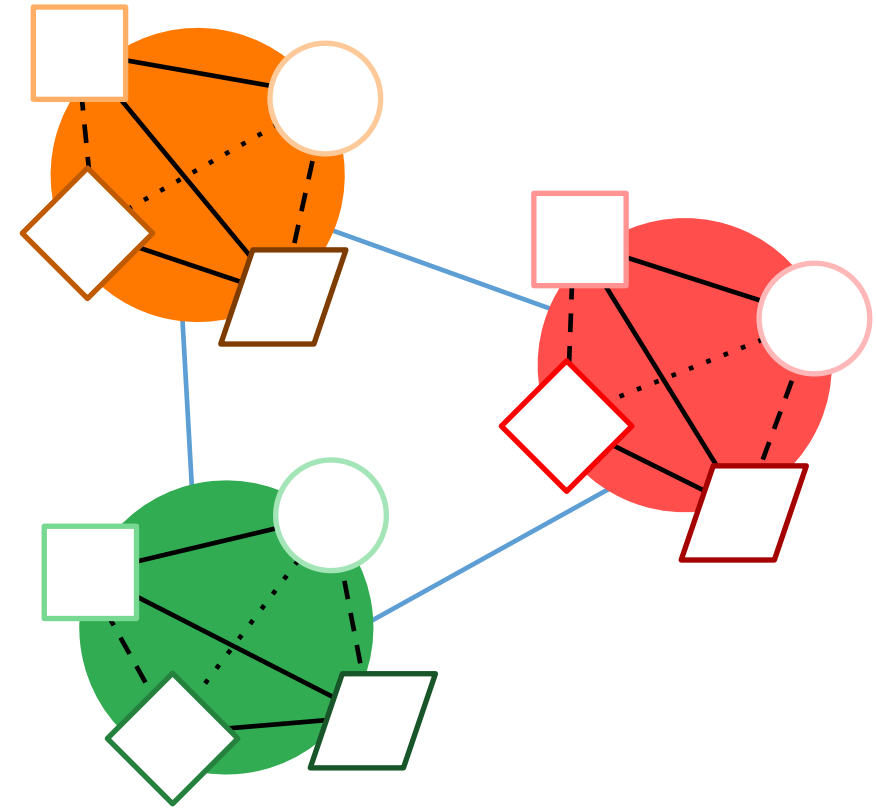
Small and trusted interconnected communities

Cooperating trusted parties

Various entities in the ecosystem cooperate with-in/out the network

Evolving trust

As trust evolves interactions and connections evolve with it





IOTICS

CONCLUSIONS

Data economy

To address problems at global scale in competitive environments

Data ecosystems

Environment for organisations to cooperate by sharing and exchanging data

Human and Technical Challenges

To build and maintain data ecosystems

Technology

Engineered to solve challenges and support the evolution of trust



THANK YOU

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