

Open and trusted data markets



Amsterdam Data Exchange

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Different ways of using and sharing data



- Individual self-resourcing
- How most organisations do it



- Market, sharing and exchange
- Social networks

		'Gated community'	Open market
Data storage		Platform limited	Free choice; either local provisioned storage.
Data services		Forced shopping. No services from others.	Purchase from any service provider.
Data transactions		Only within the platform. No interoperability with other platforms.	Peer-to-peer transactions and platform independent.
Data control		No exclusive control over sovereign data.	Full control over sovereign data.

Digital enforcement

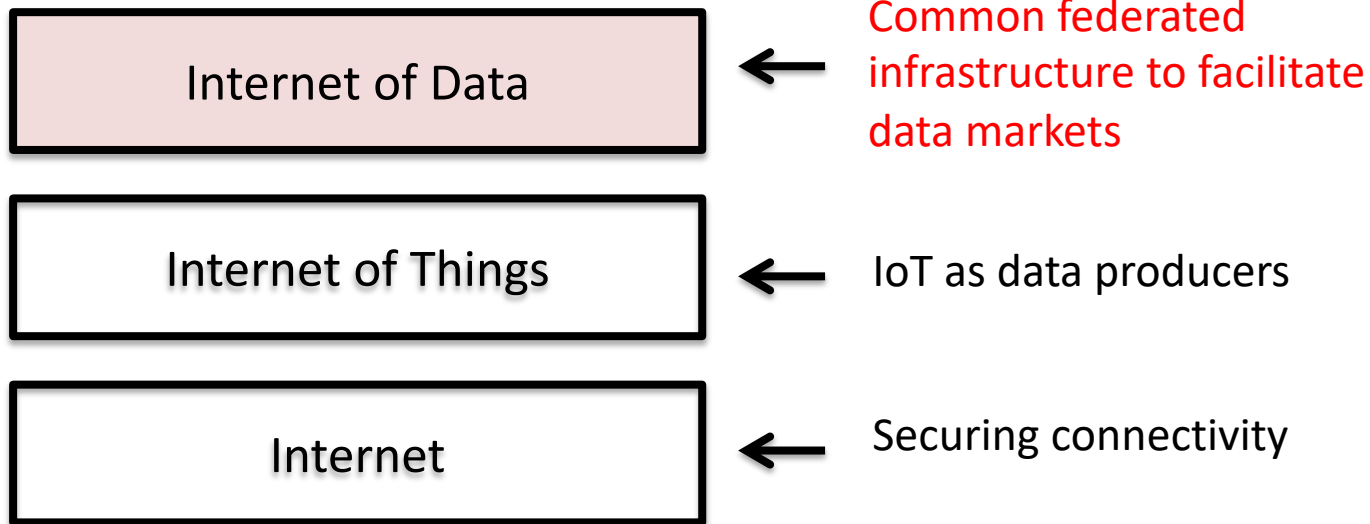
Generic models of data agreements (rules) serve to accommodate different data sharing requirements.

These legal models are by design built in supporting software for securing trust and audit.



Software embedded rules

Internet of Data: the missing link in digital data traffic



Structuring the Internet of Data 1

Separate data from applications (that work with the data)

Your data pod is your own storage space

Manage your data FAIR



MOVE FREELY BETWEEN SERVICES

Switch to the best tools
and take your data with
you.



REUSE DATA ACROSS APPS

Stop re-entering the
same data again and
again by recycling data
from app to app.



CONNECT WITH ANYONE

Connect to your friends
no matter what app they
are using.



SELECT WHAT YOU SHARE PRECISELY

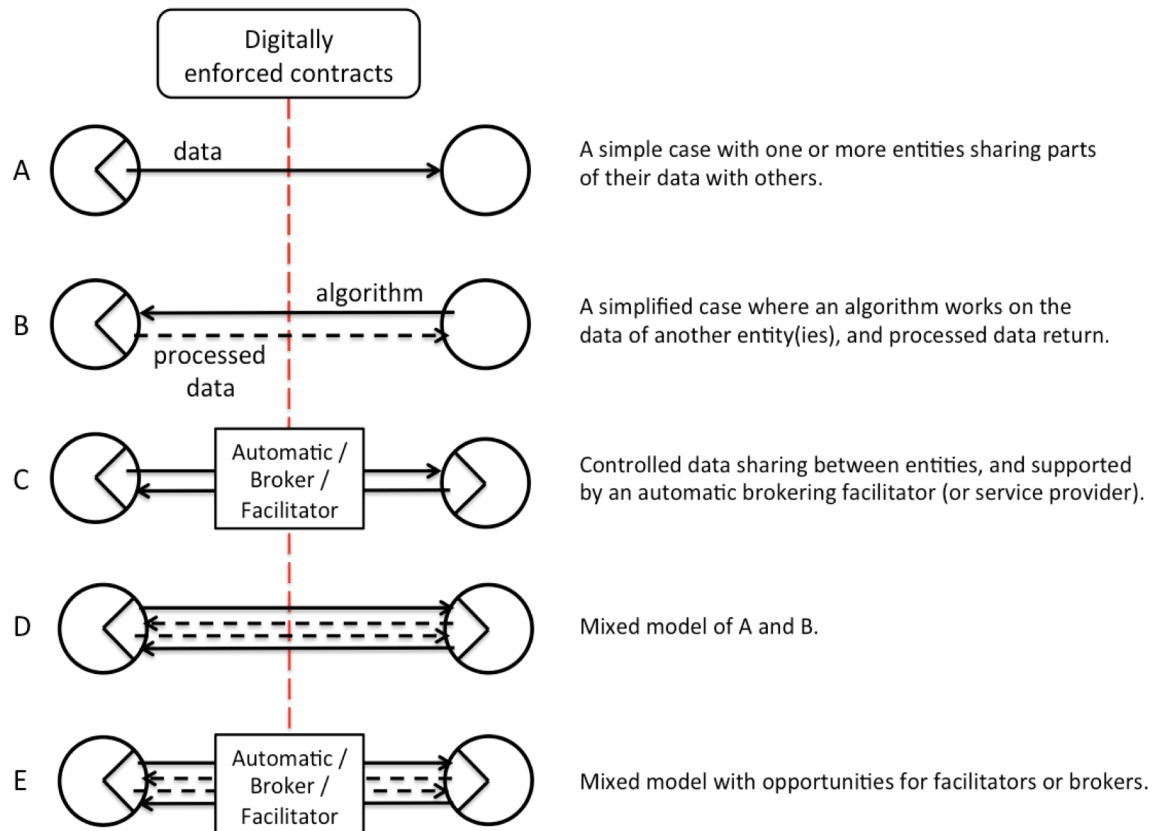
Give access to the bare
minimum of data needed
for the service to work.

Structuring the Internet of Data 2

Automate the making of digital data contracts

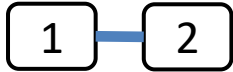
Execute contracts by controlled and secured data transactions over cable and wireless networks.

Automate through data sharing archetypes.



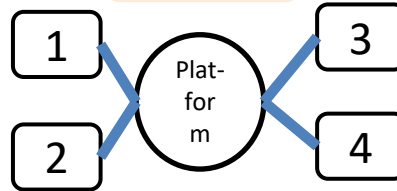
Enterprise Data Exchange Model Trends

Peer to Peer



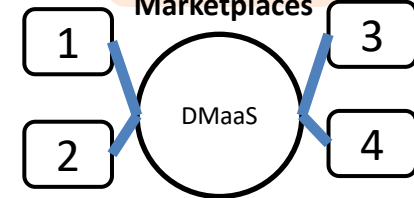
- Trusted Partners
- Data Quality is known
- Data Providers assume buyers do not re-sell data
- Data is moved to buyer

Buy/Sell to Aggregators



- Data SLA enforcement is buyer's responsibility/reputation-based
- Usually No control over data once it is with Aggregator/Broker
- Buyers get data from Broker
- Broker has his own marketplace

Participate In Decentralized Marketplaces



- Consortium determines rules of its trusted model
- Providers have control over their data
- Buyers interact compute with data, but have privacy over their code execution
- Consortium operator or 3rd party problem remediation



Examples of running bottom-up initiatives



Artificial Intelligence

AIRFRANCE KLM sends (trained) algorithms to competing airlines for analysing their aircraft data for predictive maintenance.



Circular economy

Implementing a data driven market of waste material offerings, users, transporters, insurances, etc, based on registered material passports.



Logistics

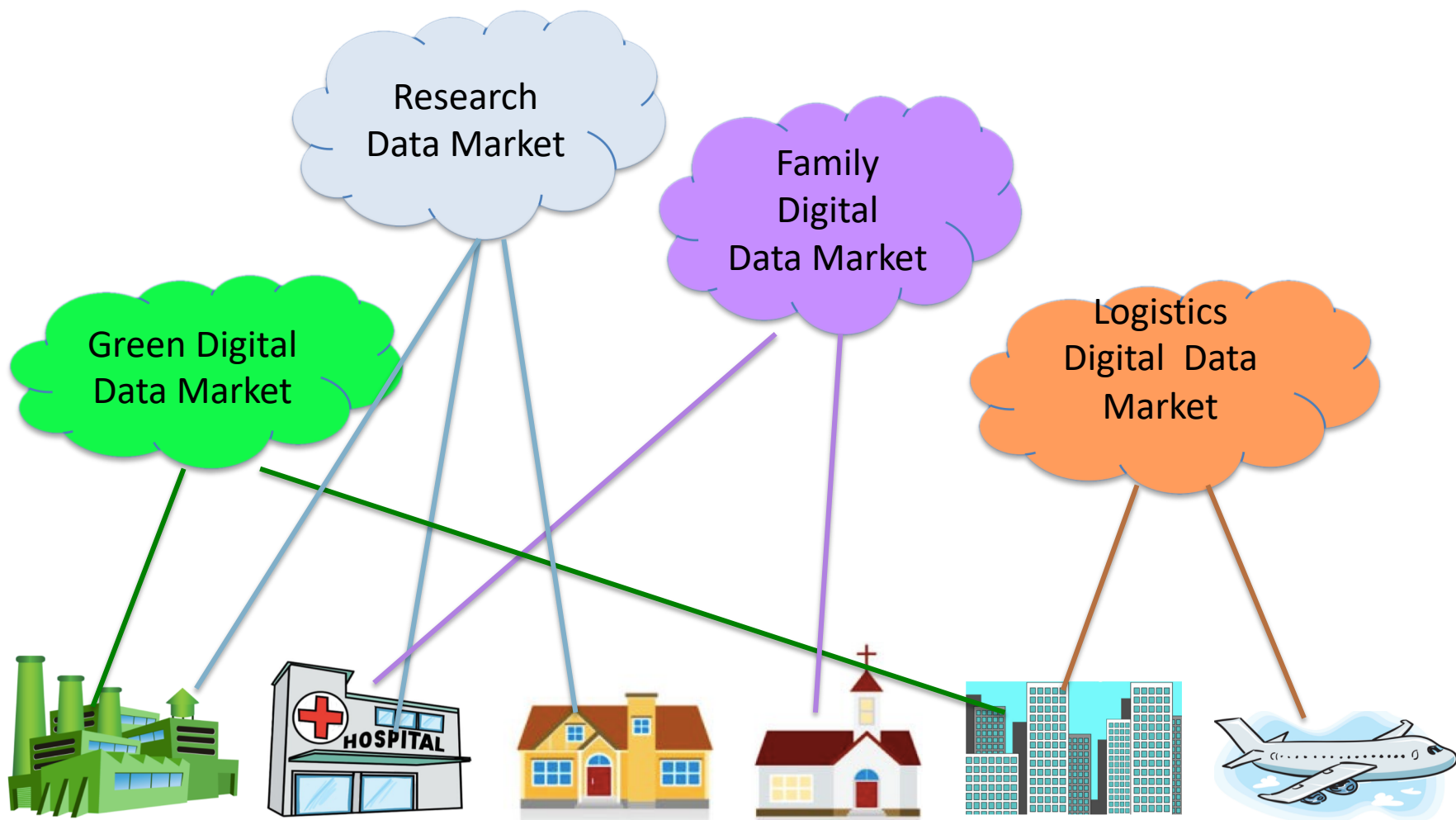
iShare makes digital cargo data accessible for logistic chains in an easy and trusted way. Carriers and shippers process data without paper, and are assured that data access is only for selected parties.



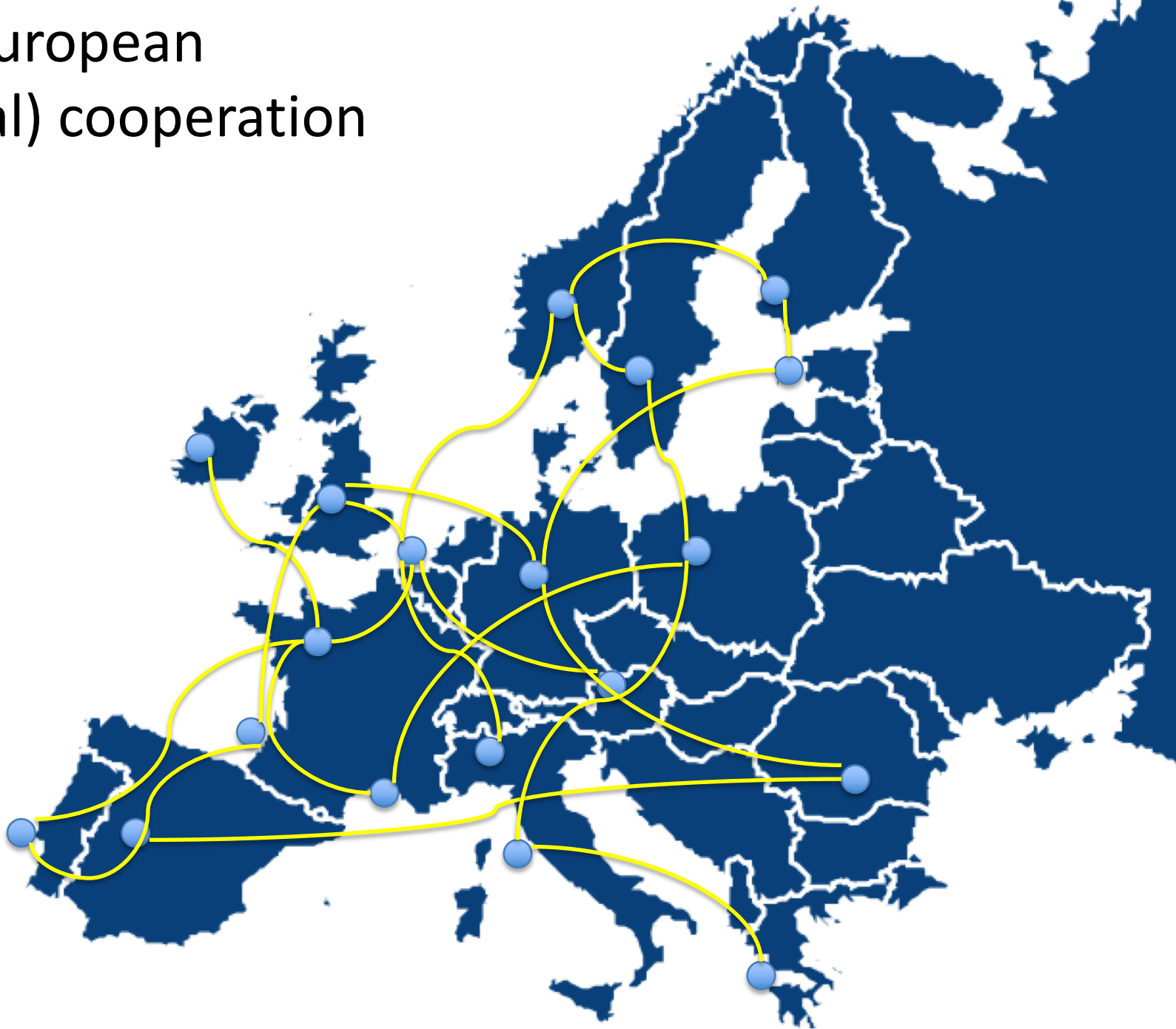
Health care

Shared data-driven development of algorithms for personalised care, vaccine development etc in 'digital twins'.

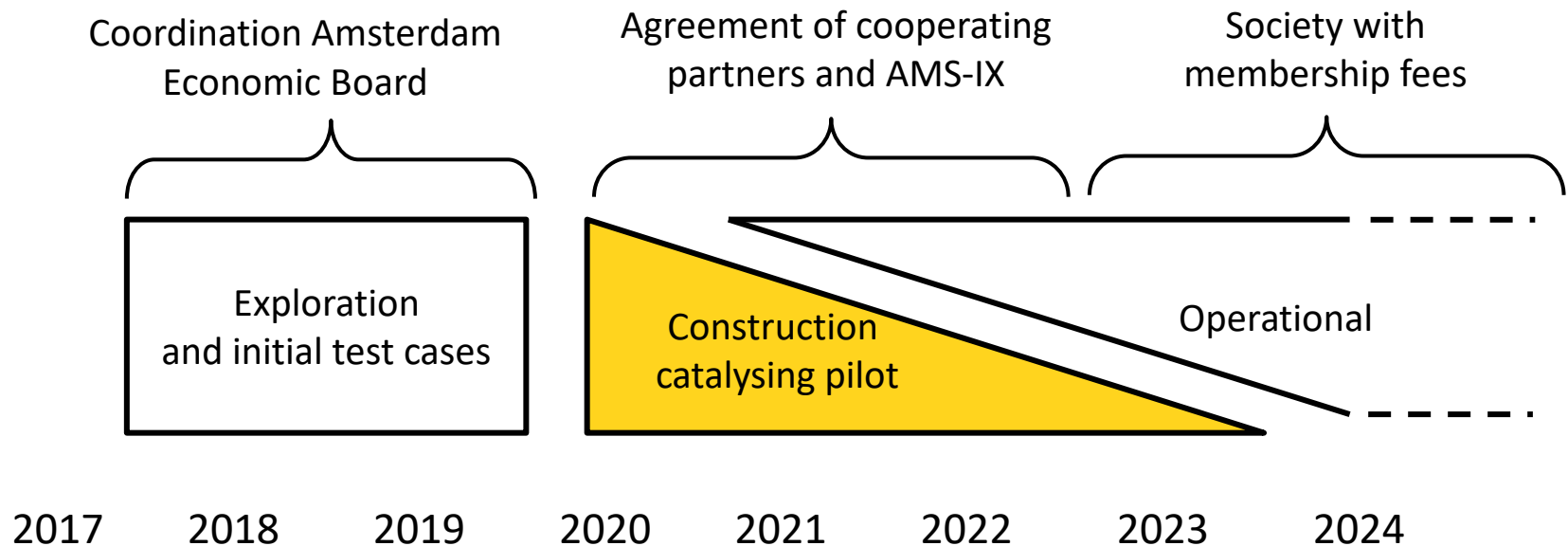
Trias politica: separate data / applications / moderators



European (regional) cooperation



AMDEX Lab & Pilot construction



AMDEX Lab e& pilot project

- Organisation, management and community
- Reference model architecture
- Construction with limited functionality
- Testbed use cases

Interested to participate?

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- or
- ADS Secretariat