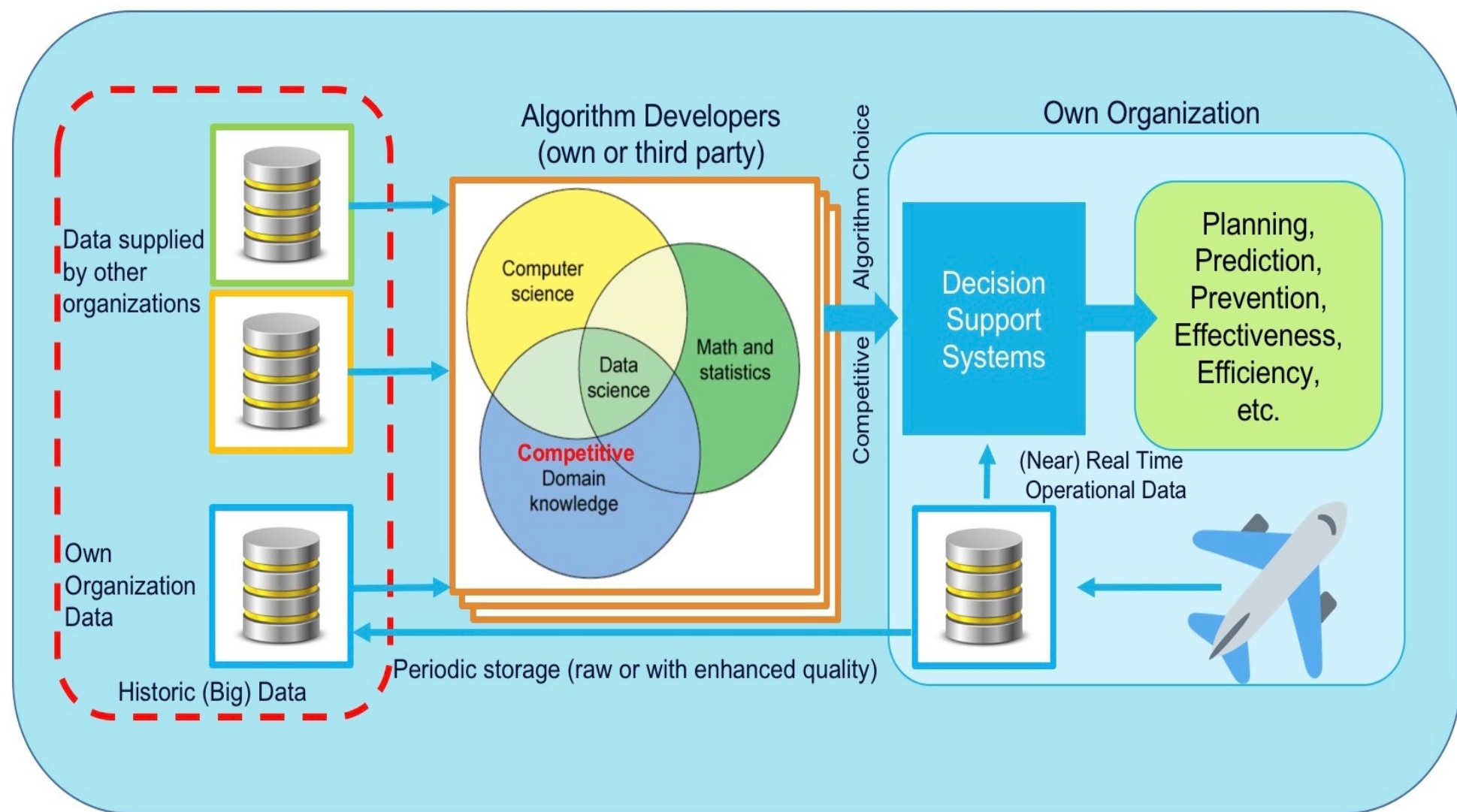


Training AI/ML models using Digital Data Marketplaces

Creating value and competition by enabling access to additional big data owned by multiple organizations in a trusted, fair and economic way

The more data - the better: an aircraft maintenance use-case



- AI/ML algorithm based Decision Support Systems create business value by supporting real-time complex decision taking such as **predicting the need for aircraft maintenance**.

- Algorithm quality increases with the availability of aircraft data.

- Multiple airlines operate the same type of aircraft.

- **Research Question:** "How can AI/ML algorithm developers be enabled to access additional data from multiple airlines?"

- **Approach:** Applying Digital Data Marketplace concepts to facilitate trusted big data sharing for a particular purpose.

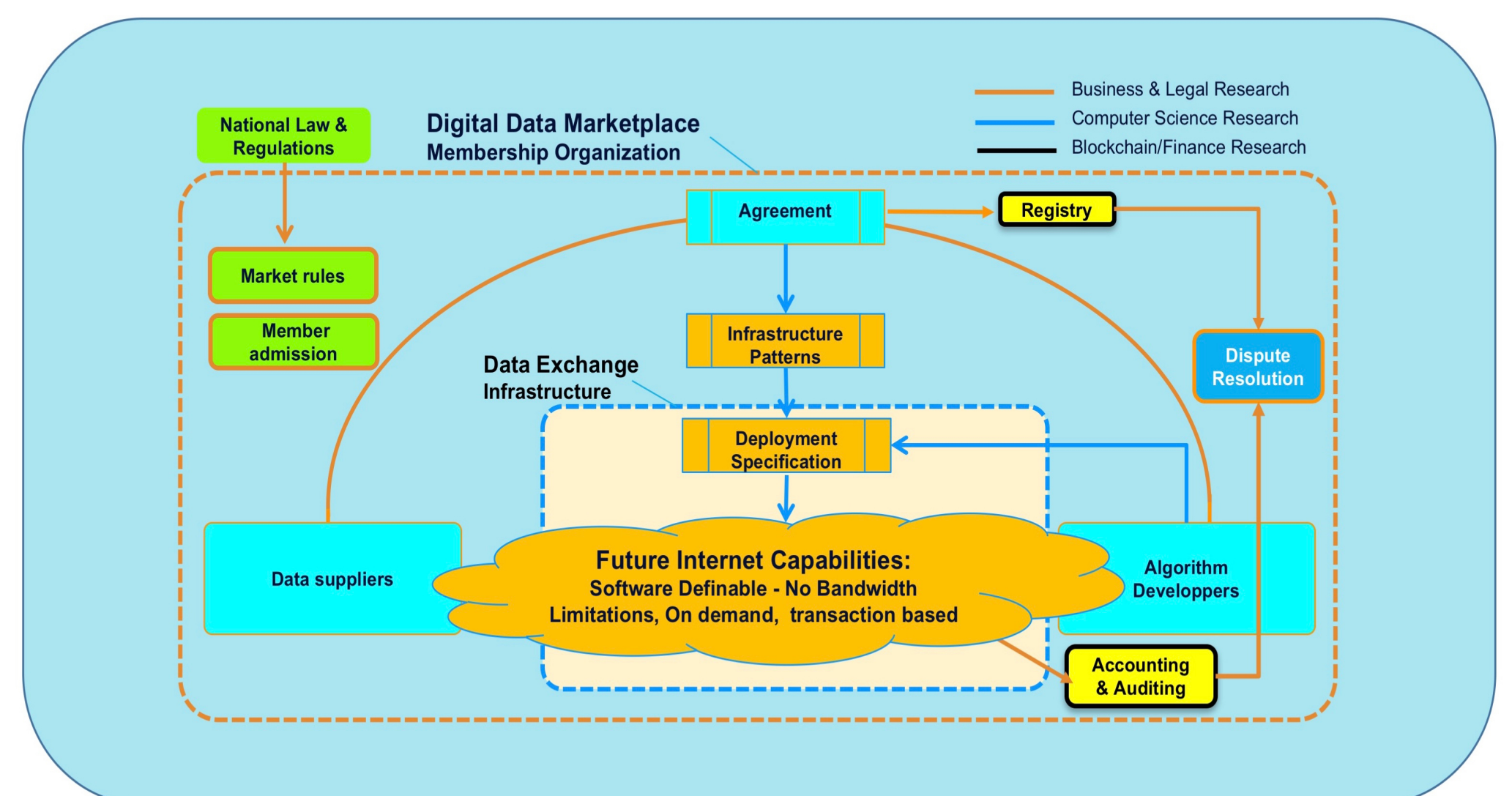
Digital Data Marketplace enabling data sharing and competition

A **Digital Data Marketplace** is a membership organization supporting a common goal: e.g. enable data sharing to increase value and competitiveness of AI/ML algorithms.

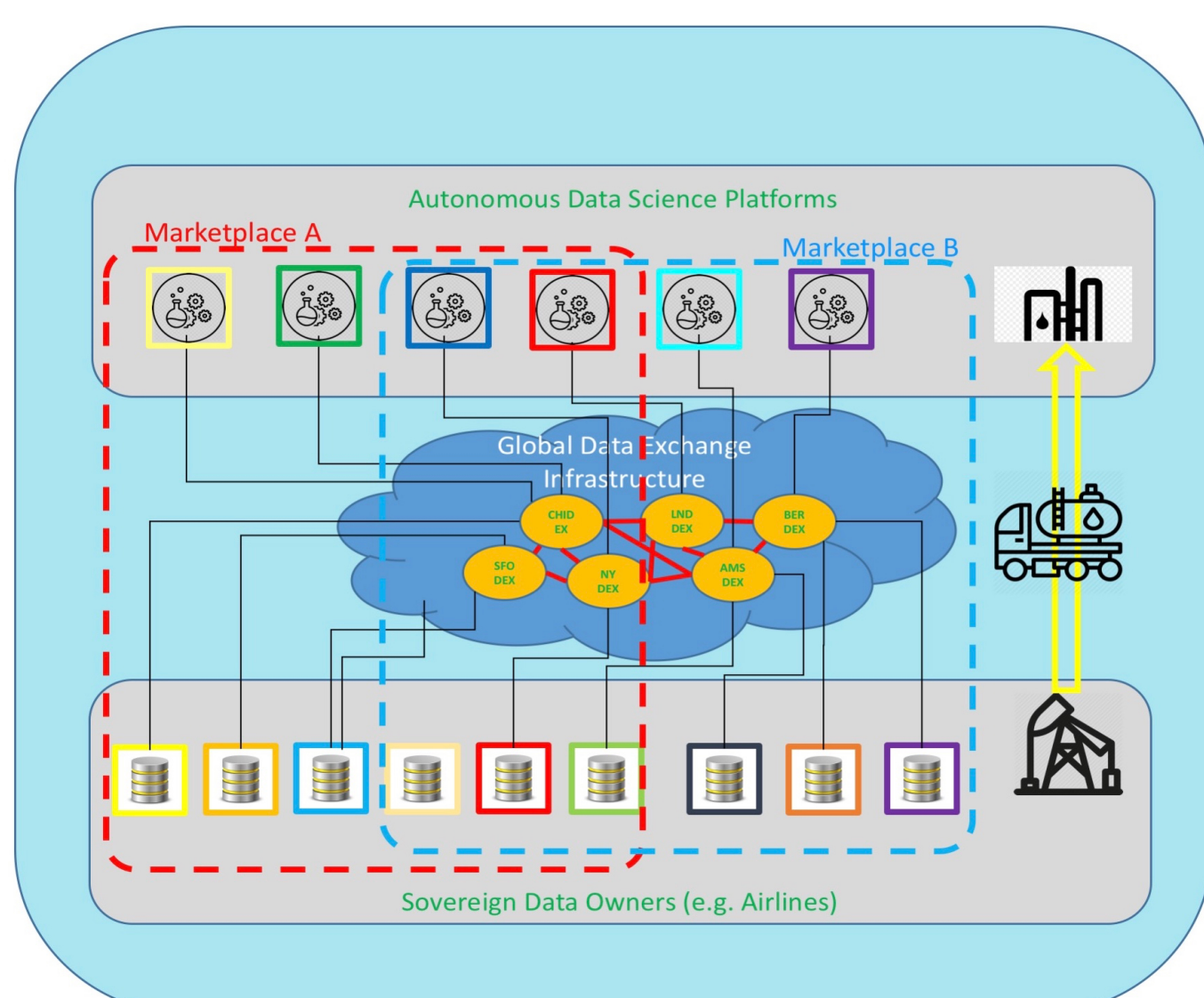
Membership organization is institutionalized to create, implement and enforce membership rules organizing **trust**.

Market members arrange **digital agreements** to exchange data for a **particular purpose** under specific conditions.

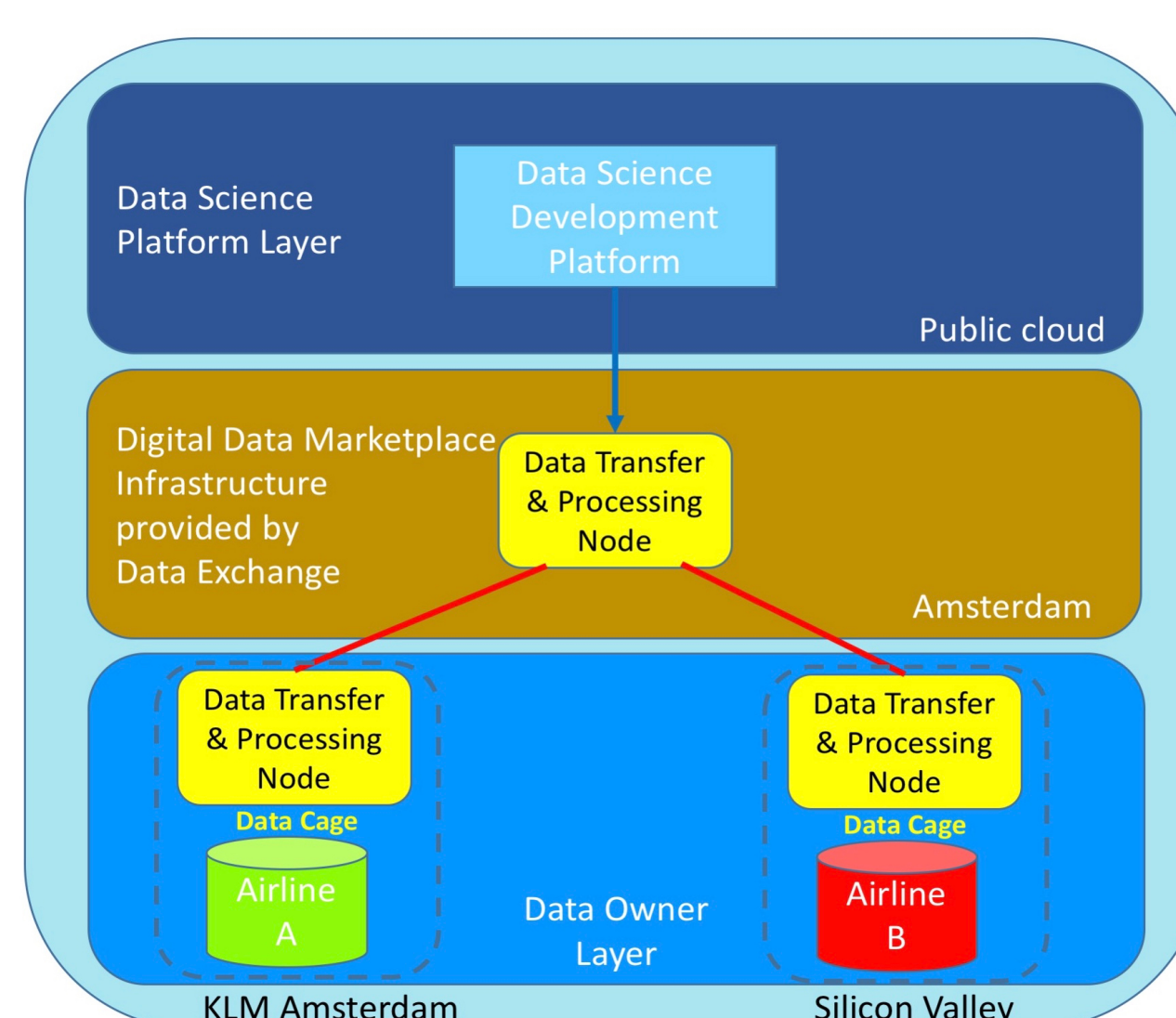
Agreements subsequently drive data science transactions creating processing infrastructures using infrastructure patterns offered by a Data Exchange as **Exchange Patterns**.



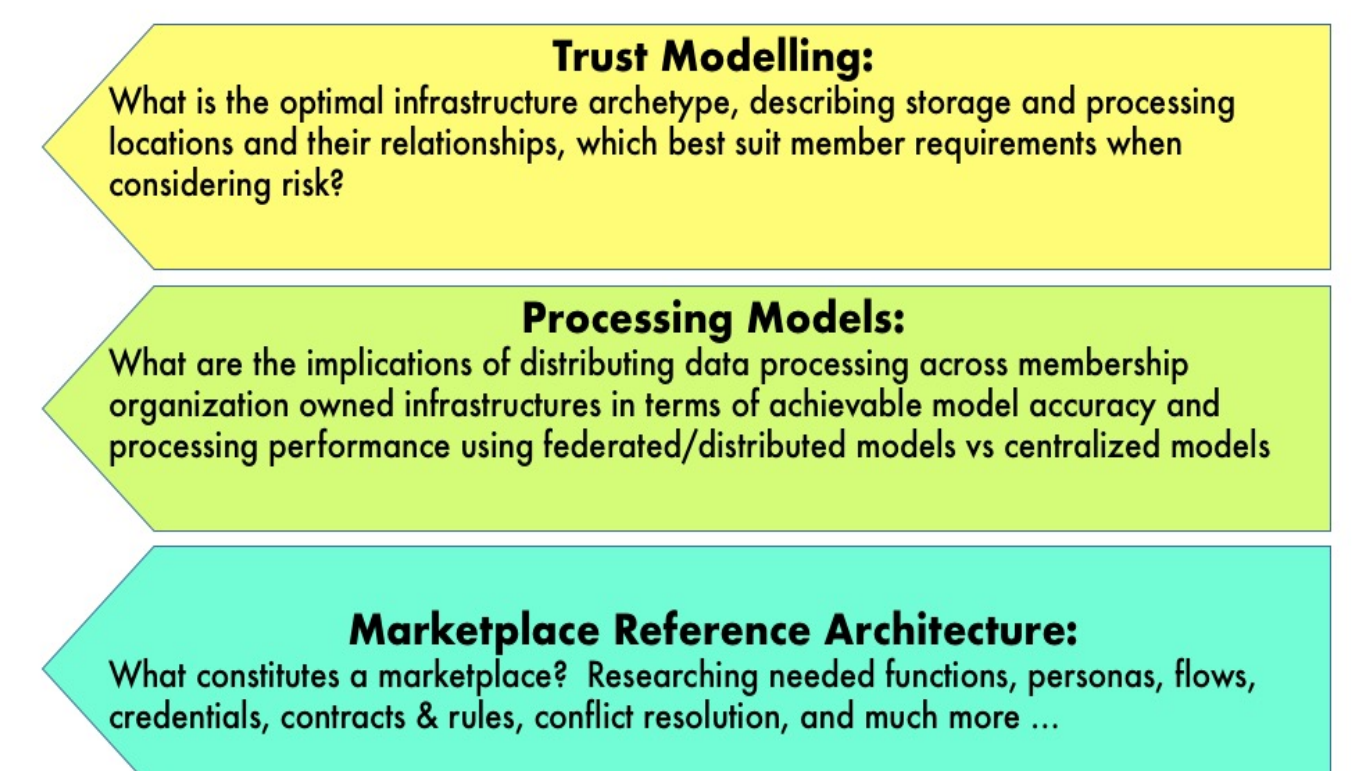
Researching Exchange Patterns to support Digital Data Marketplaces



Data Exchange Model



Research Infrastructure



Research Elements