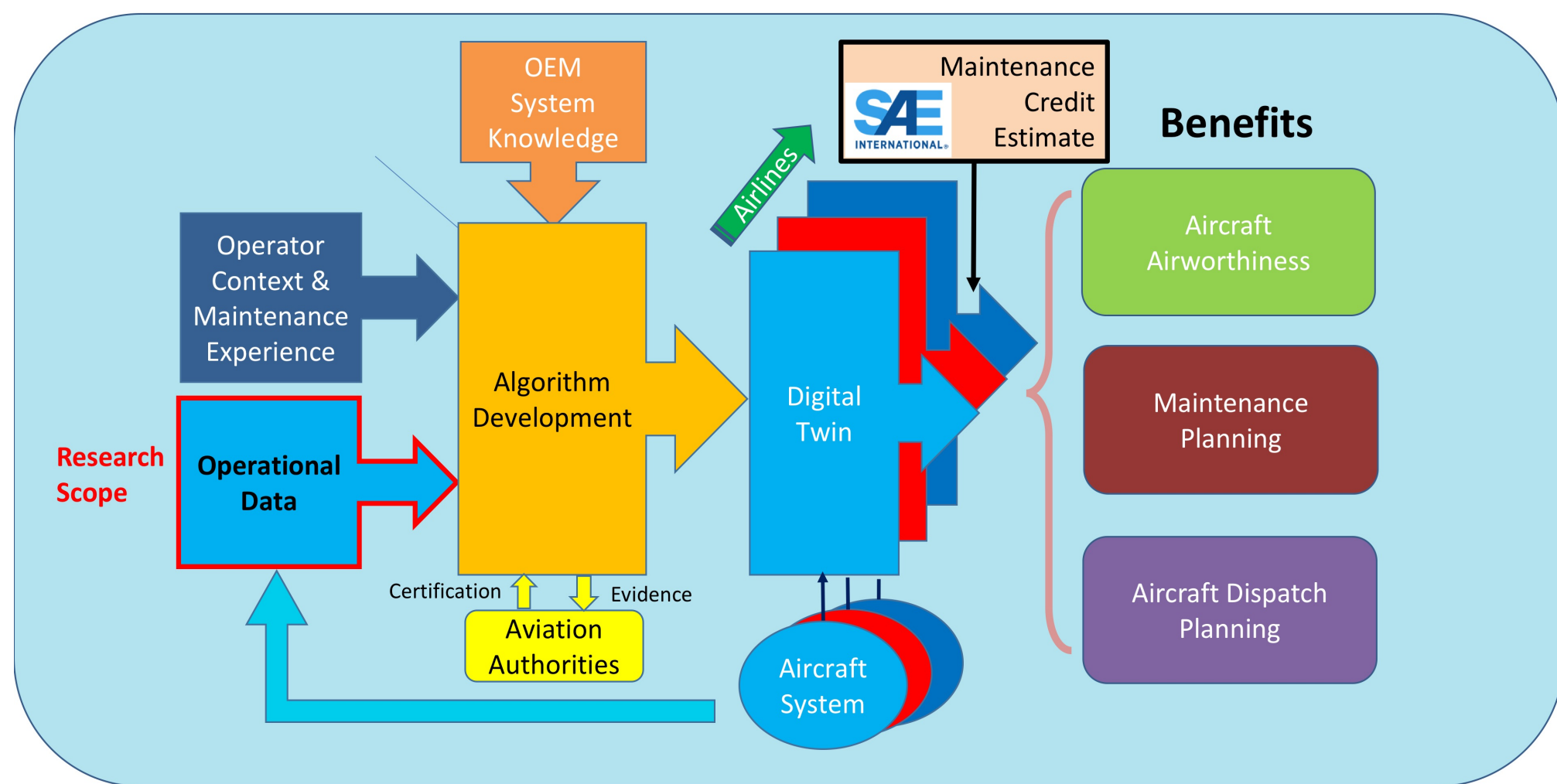


# Unlocking the Data Economy via Digital Marketplaces

## Researching governance and infrastructure patterns in airline context

### Use Case: Sharing Aircraft Data to develop a Maintenance Credit System



- A **Digital Twin** estimates time before maintenance is needed after data is received from a corresponding aircraft system.
- Algorithm quality increases when data, owned by different airline operators, can be shared during its development.
- **Sharing data assets** carries **risk** (e.g. non-compliance).
- **Research Question:** "Can Digital Marketplace concepts organize trust amongst its stakeholders to enable common benefits no single organization can achieve, whilst observing economic principles?"

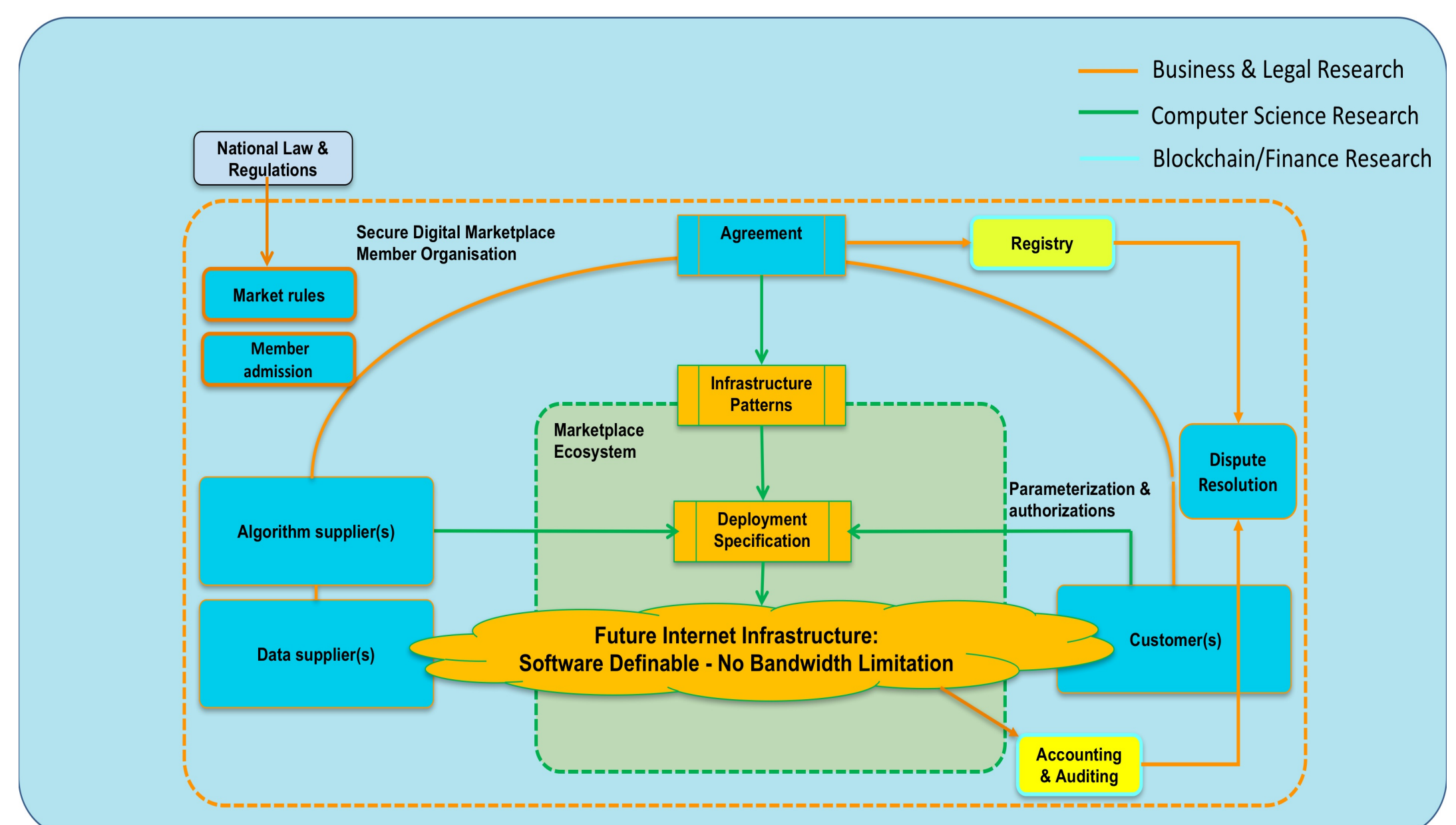
### Digital Marketplace as a means to organize trusted data asset sharing

A Digital Marketplace is a membership organization identified by a common goal: *Share data to enable development of a Maintenance Credit System.*

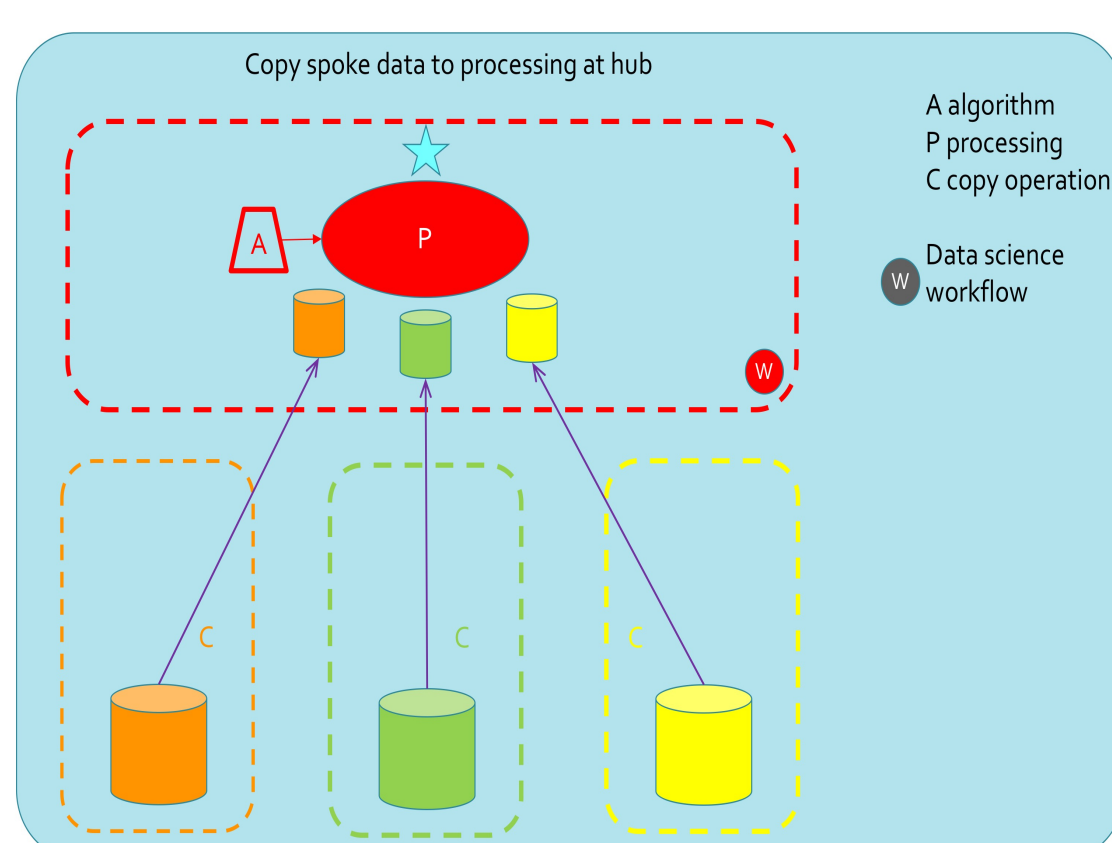
Membership organization is institutionalized to create, implement and enforce membership rules.

Market members create **digital agreements**.

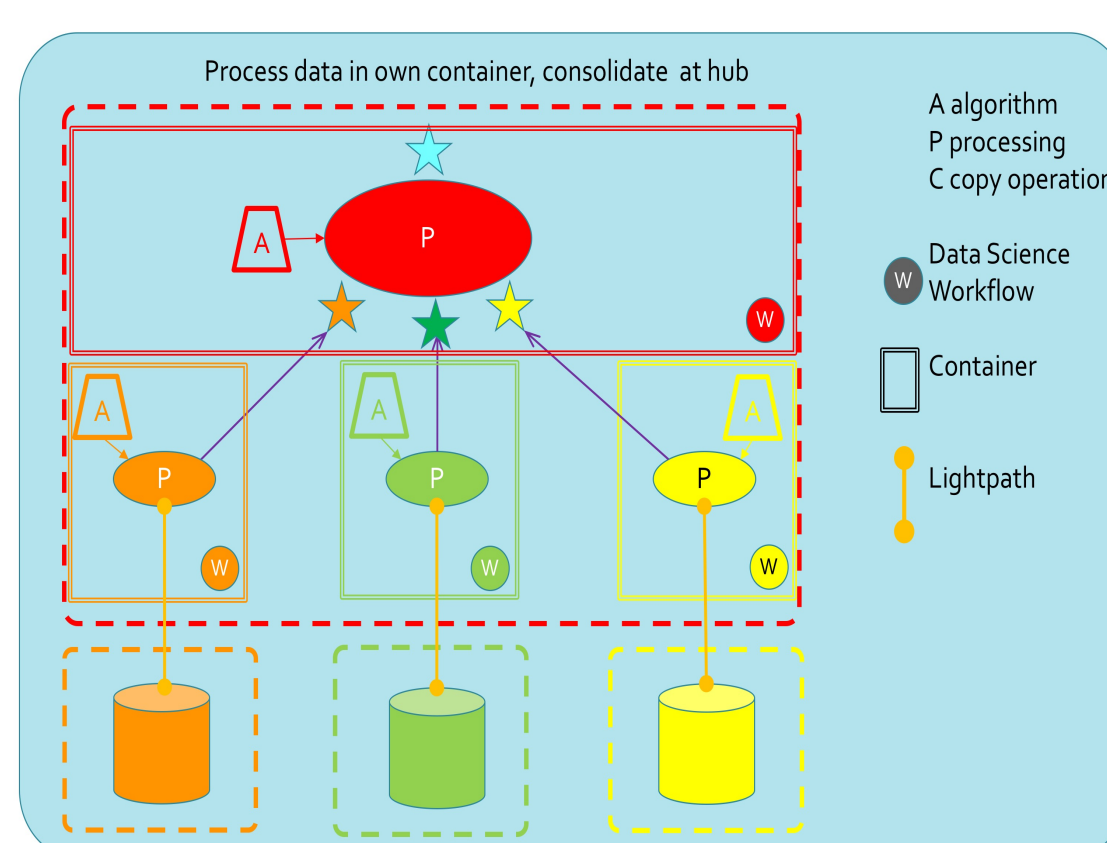
Agreements are translated into different software defined infrastructures using **infrastructure patterns** offered by a **Digital Marketplace Ecosystem**.



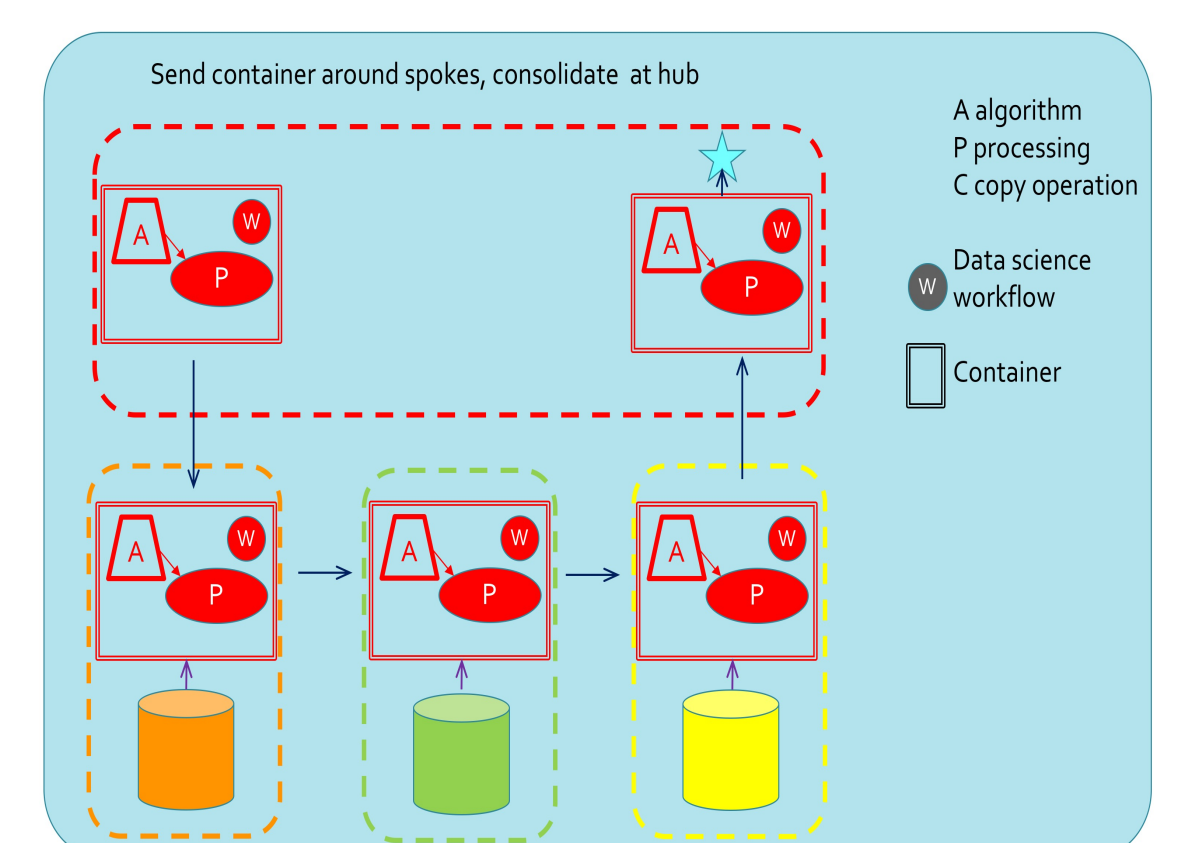
### Examples of infrastructure patterns offered by a Digital Marketplace



Public cloud model



Container model



Turntable model