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?".

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**

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