Digital Datasets

A Compliance Imperative

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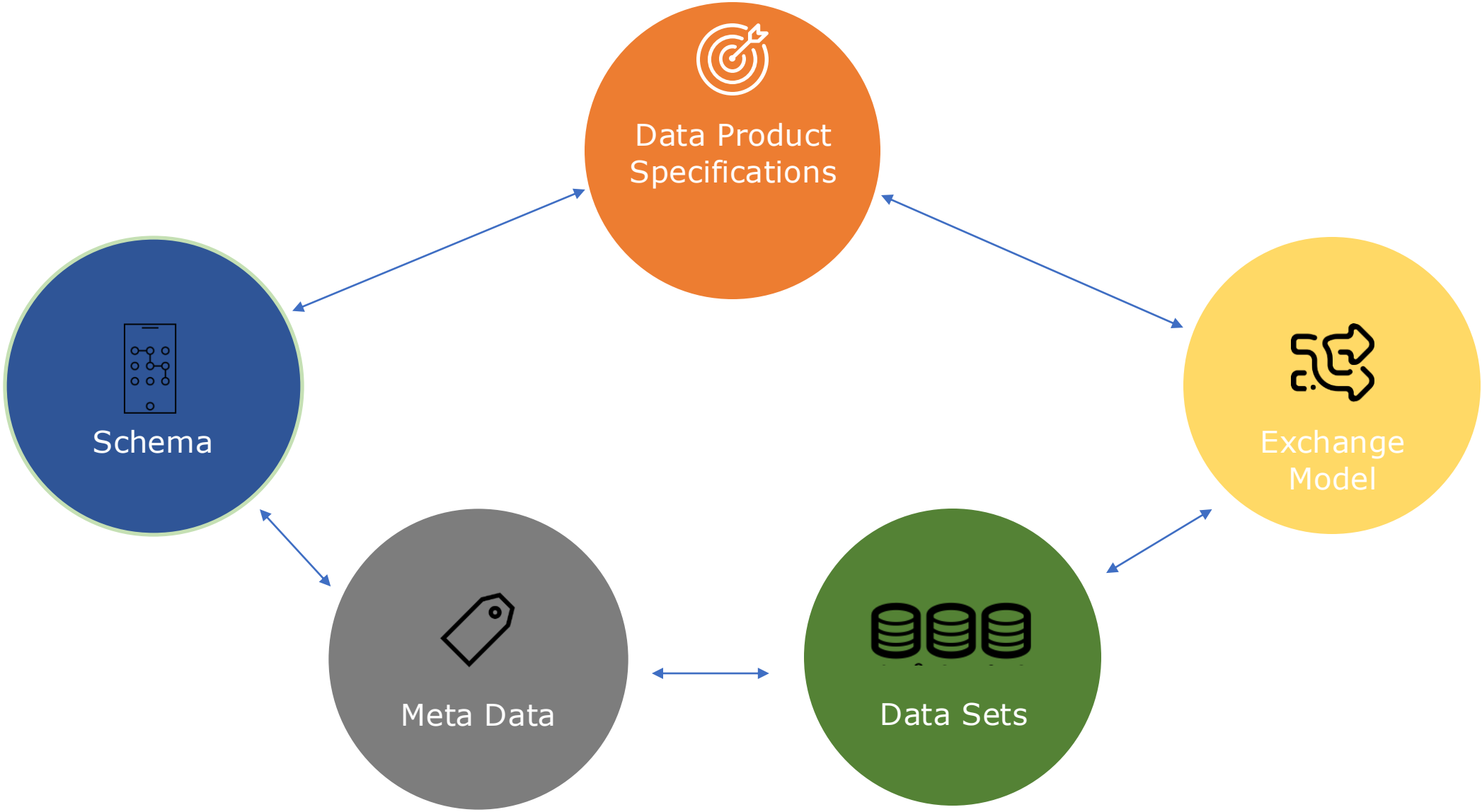
Elements of Digital Data Set



All of them together makes eTOD compliance

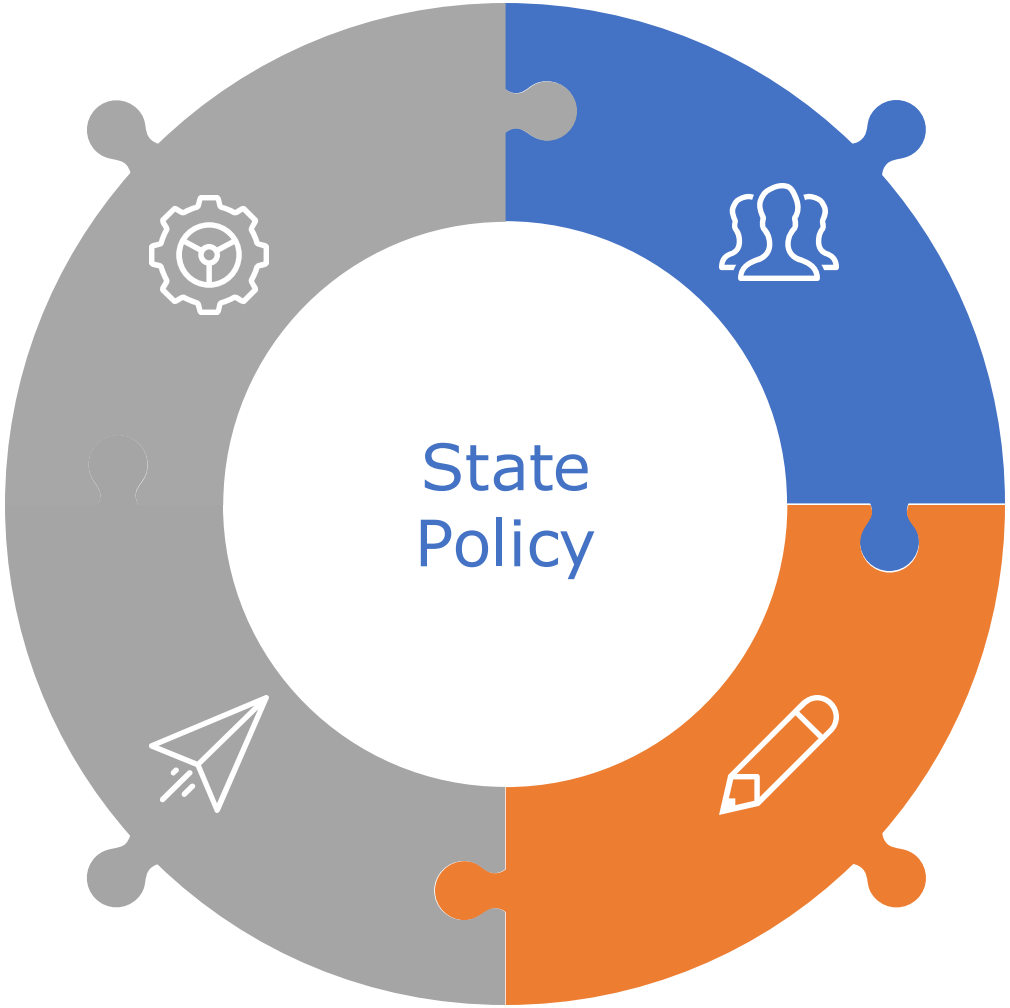
Apprehensions

1. Lack of Confidence
2. Doubt about Accuracy
3. Assurance of the Completeness
4. Recency
5. Publication Mechanism

Pillars of Data Cycle

Specifications

Publication

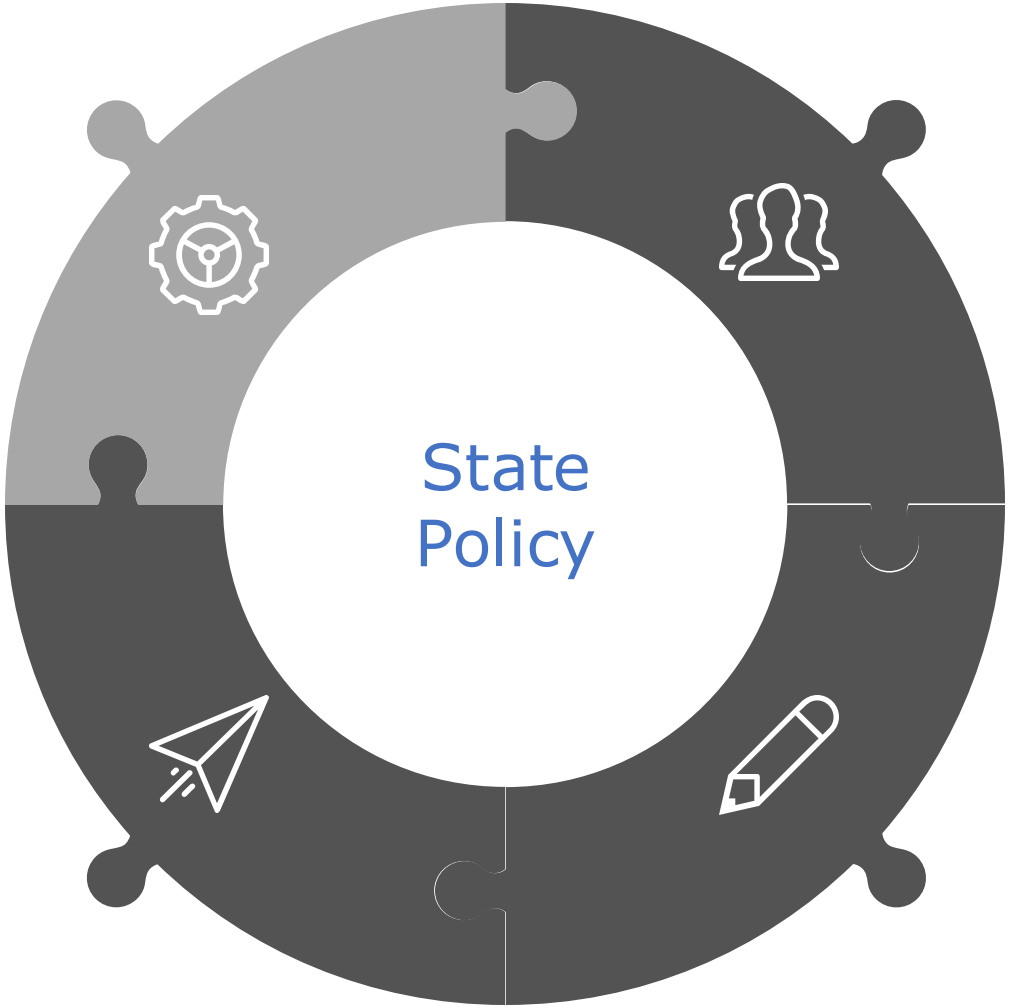


Data Origination

Validation by AIS/AIM

Pillars of Data Cycle

Specifications



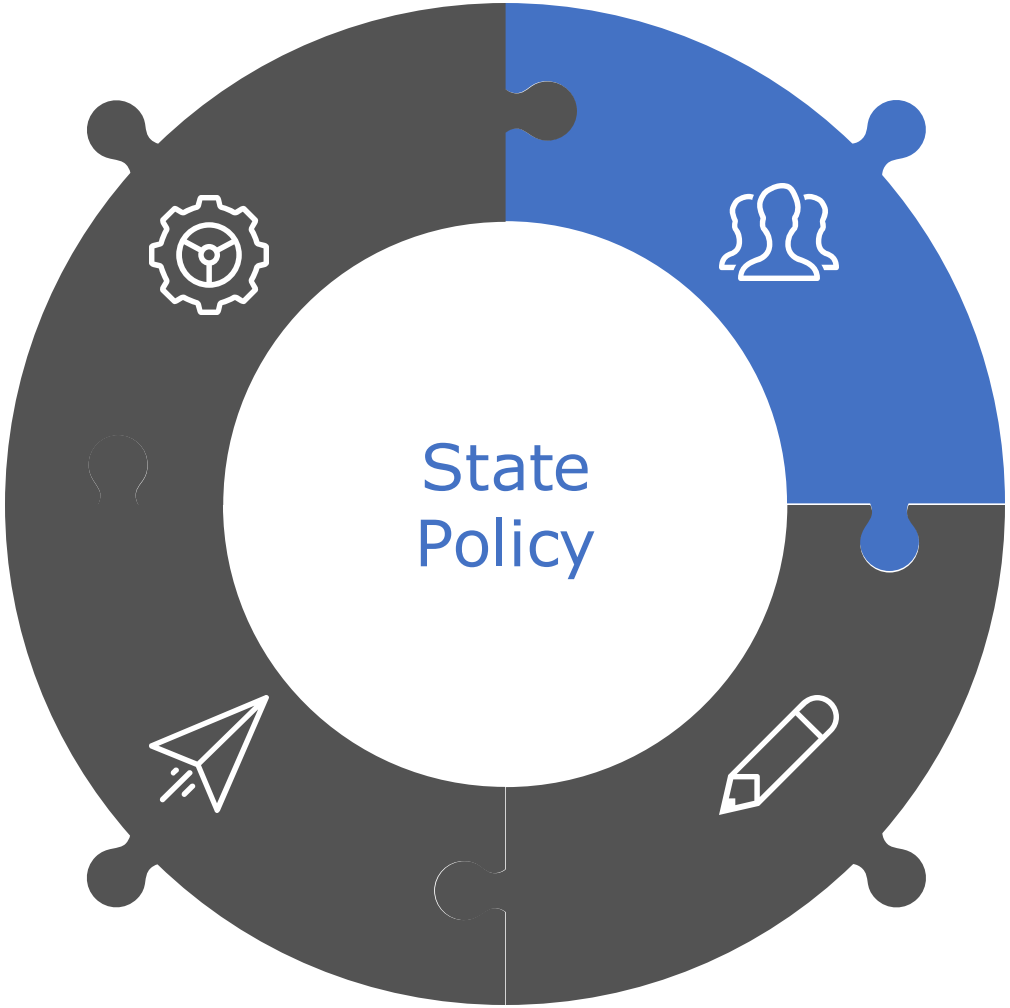
Specifications Guideline Document

- Frequency of Survey (Initial + Check Survey)
- Fixing Datum
    - (WGS 84 - Horizontal & EGM - Vertical)
- Area of Coverages
    - Area 1 (Statewide)
    - Area 2, 3, 4 (Airport Specific)
    - Uniformity Geographic extends
- List of Deliverables :
    - Format
    - Accuracy
    - Uniformity Geographic extends

Data Product Specification (DPS)

Frame of reference
derived from various
guidelines and specifications

Pillars of Data Cycle



Data Origination

Limitations with Data Originators

1. Domain Knowledge -

End user's requirements and Criticality of data for PBN

2. Competency Gap -

Specific training w.r.t. Aeronautical Surveys and its impact on PBN

3. Consistency -

Uniformity of Enforcement or Development of Policy (e.g. Local Datum vs Global Datum)

Certification of Agencies

Application - Step 1

✓ Team Details (Education, Training, KRA)

(Competency Assessment)

✓ Process (SMS / QMS, Methodology, Approach)

✓ Technology (Software, Equipments, Maintenance)

Certification of Agencies

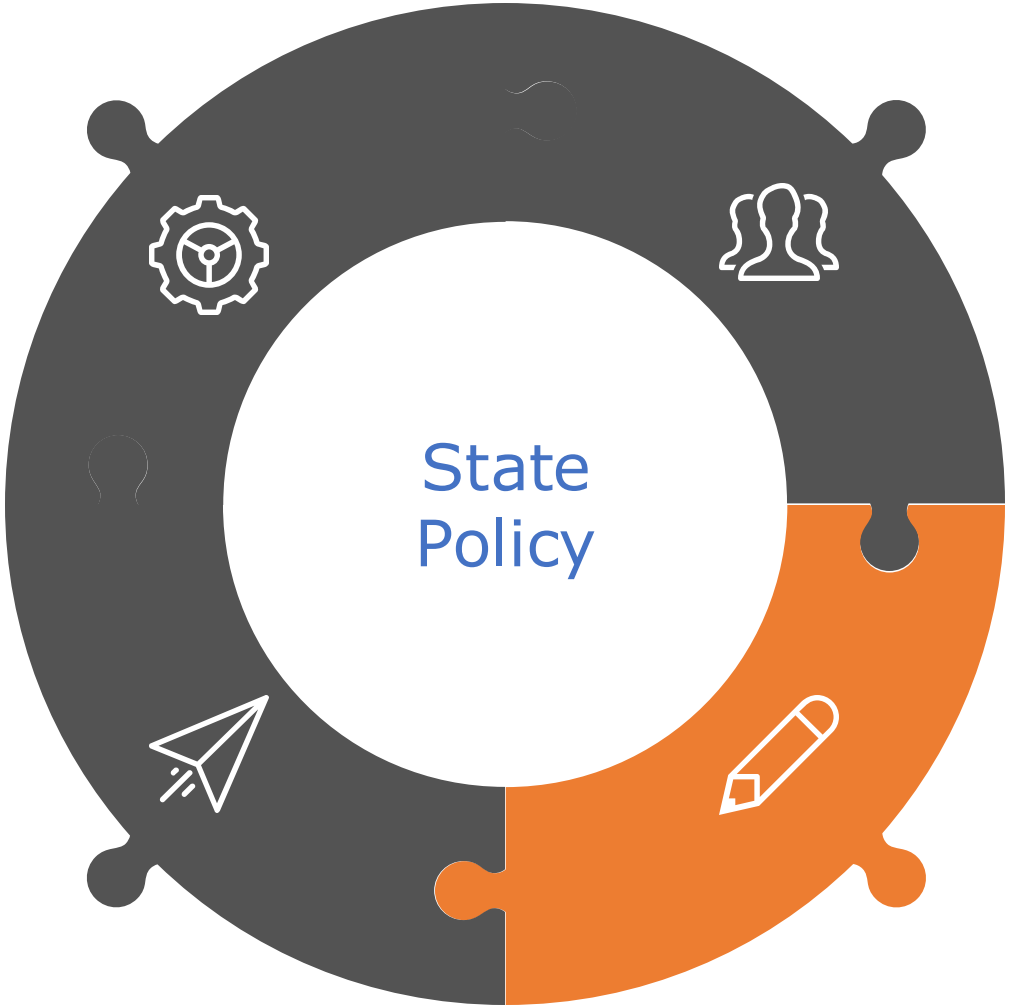
Physical Audit - Step 2

- ✓ Verification
- ✓ Setting up expectations
- ✓ Interview of team
- ✓ Experience of systems

Data Sets

Data Set are absolute values

Pillars of Data Cycle



Validation by AIS/AIM

Validation by AIS/AIM

Data Source

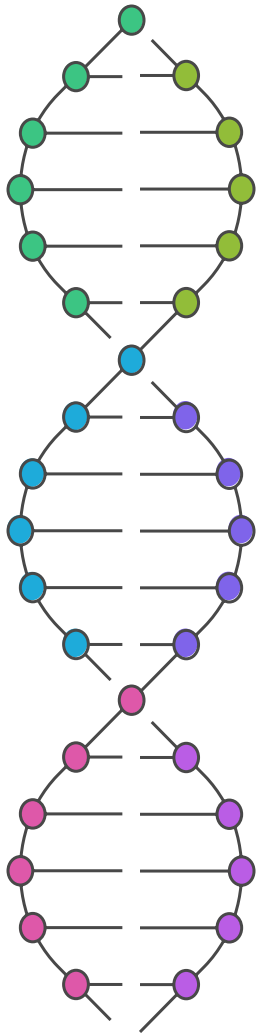
The origin of the data, ensuring credibility and context.

Data Quality

The accuracy, integrity, resolution, and consistency of the data.

Recency

The timestamp indicating the data's last update.



Data Owner

The entity responsible for the data's management and governance.

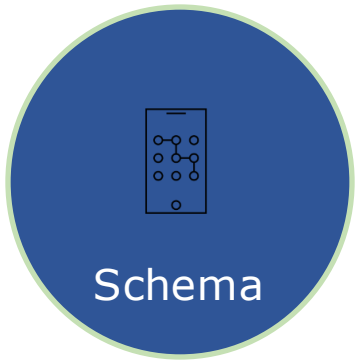
Confidence Level

The degree of certainty in the data's reliability.

Formatting

The structure and presentation of the data.

Schema/Metadata

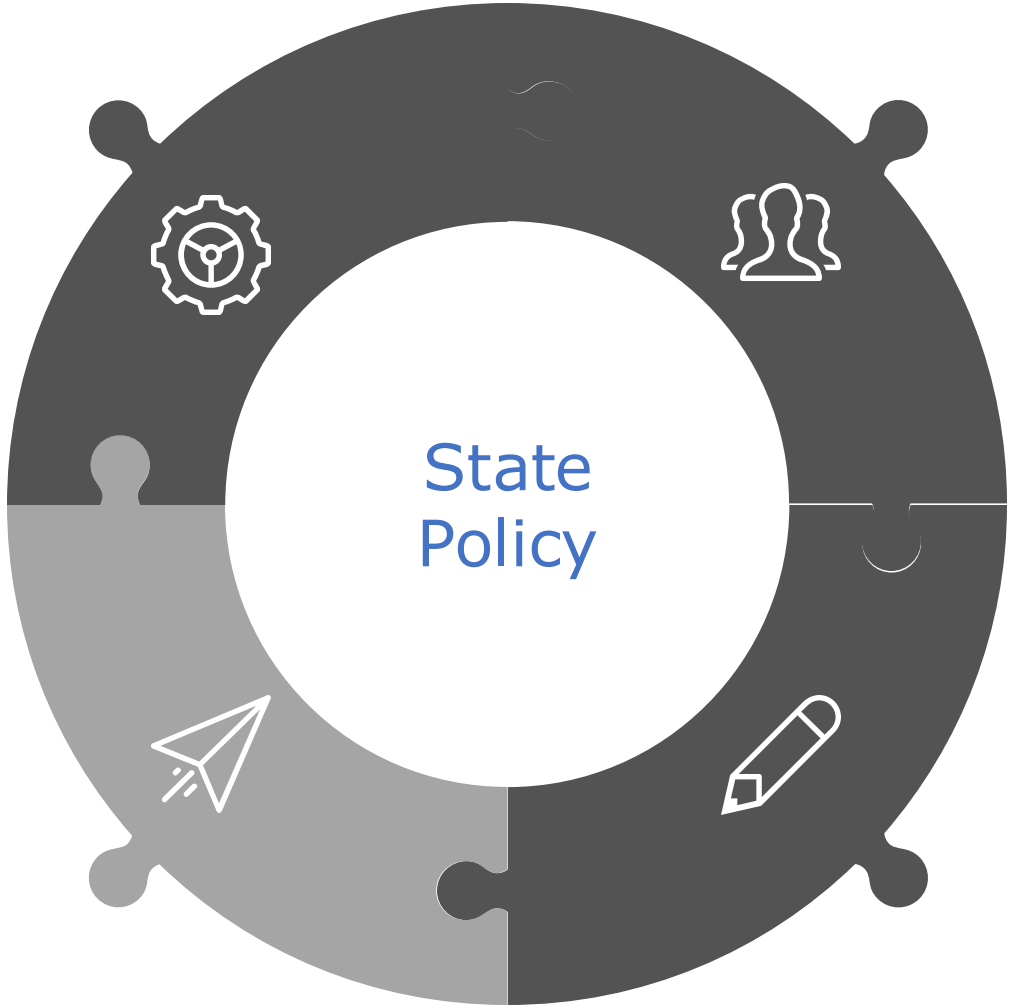


Structure of relationship between
multiple data points of
Real World Entities
in Digital Format

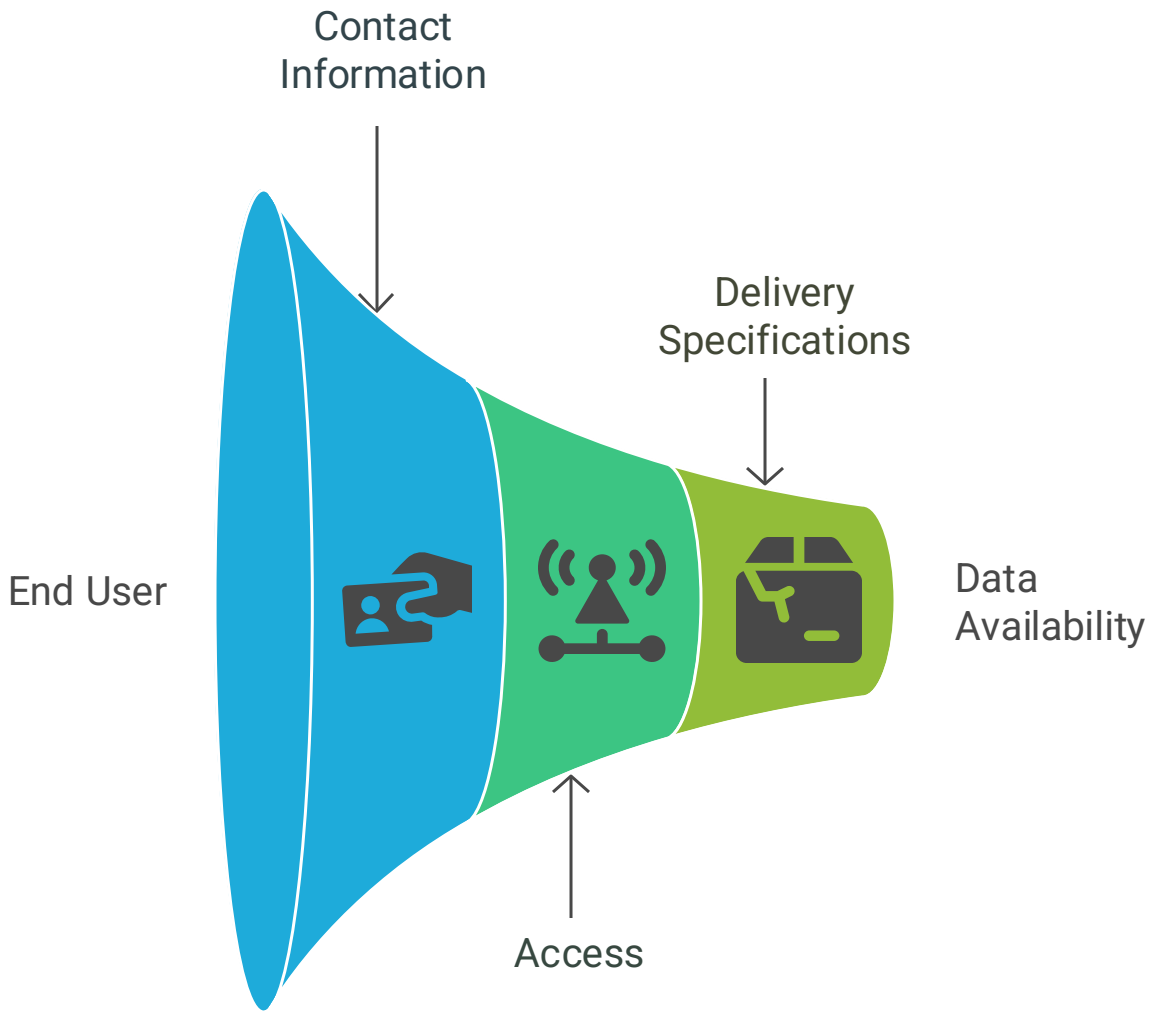
Meta Data is Characteristics of Data
to determine the fitness for use
without evaluating data itself

Pillars of Data Cycle

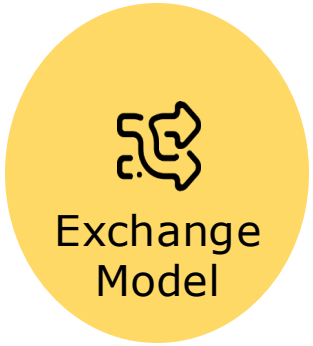
Publication



Publication



Exchange Model



Exchange Model is
Information Dissemination

Pillars of Data Cycle

Specifications

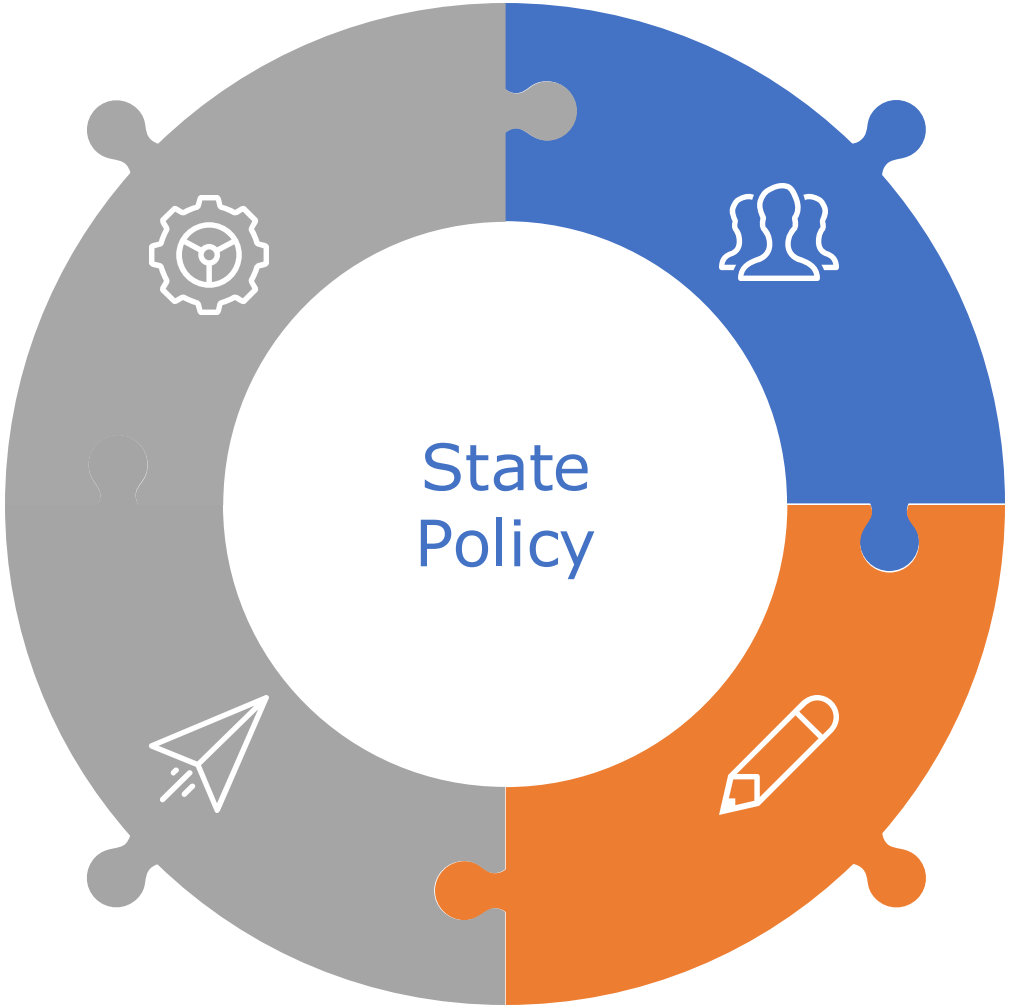
DPS

Project Specific Guidelines

Publication

Exchange Model

End User



Data Origination

Datasets

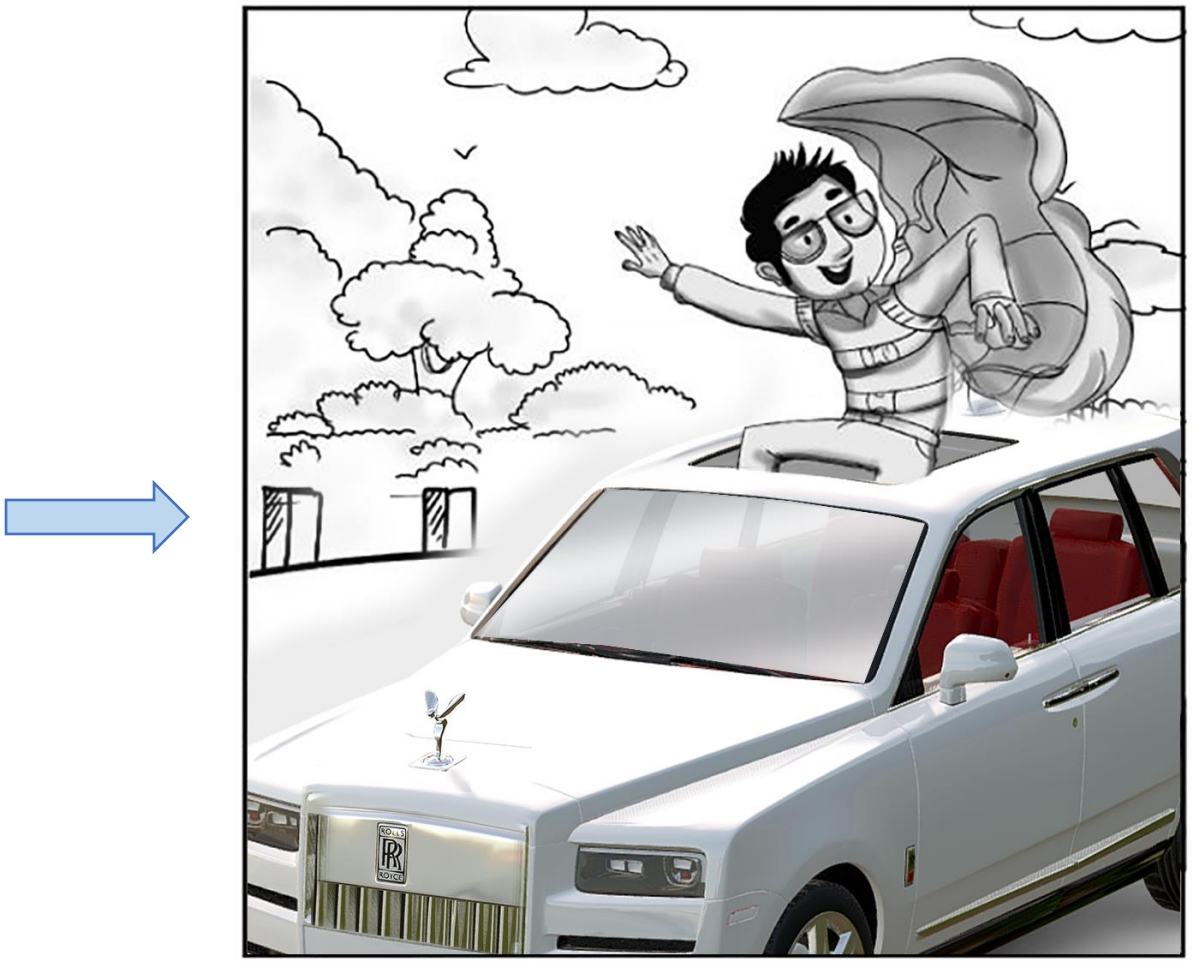
Certified Agency

Validation by AIS/AIM

Schema + Metadata

Structure + Quality

Digital Datasets



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