Australian Government
Department of Finance

APS Data Governance Framework Fact Sheet
Data Lifecycles - Examples

APS Data Governance Framework - Attachment B

What is a data lifecycle?

A data lifecycle is a way of understanding the data and analytics that your agency produces, uses and relies on, and the various states that data passes through throughout its existence. From a data governance perspective, these are more comprehensive than an ICT data lifecycle which tend to have a more system or technical focus. The various data lifecycles in your agency form a data ecosystem.

A data life cycle can be described or visualised in many ways. It will reflect the simplicity or complexity the agency's data ecosystem. It can help identify gaps, efficiencies and value-add at each step, or even steps that may no longer be appropriate. For this reason, it is also known as a 'data value chain'.

A data lifecycle document can have different versions for different audiences. A high-level version may show the basic steps, with additional documents showing more detail. A data lifecycle may be developed for particular data assets, particularly if the data being collected is sensitive and/or critical to the operations of the agency or its stakeholders.

Even if your agency outsources most of its data collection and analytics, you will still need to have a sense of the process, where your agency fits in and where responsibilities lie internally for that outsourced arrangement. Your agency will also have internal business and corporate data, which also needs to be understood, governed and managed.

This fact sheet gives four different examples of how a data lifecycle can be documented.

Example 1: Australian Government Data Capability Framework

Plan
The processes and resources are mapped out for the lifecycle of the data. The project's goals are stated, and a full data management plan is created.

Describe
The data is accurately described using the appropriate metadata standards.

Collect / Generate
Data is collected or generated by the individuals/organisation wanting to use it.

Store
The data is stored in a digital repository, is made secure and reusable. This often very quickly follows collection.

Prepare
The data is prepared, made ready for analysis and use.

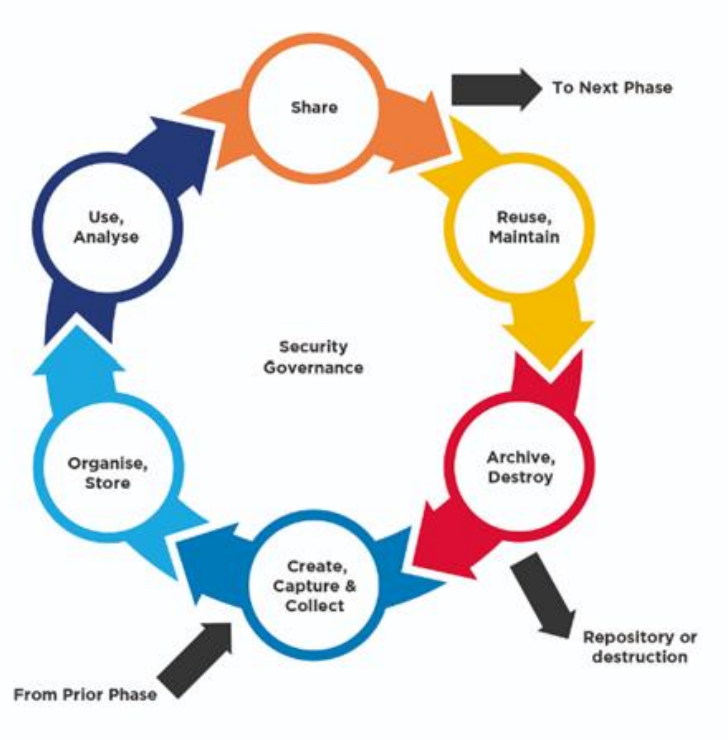
Analyse / Use / Share
The data is analysed and used for the purpose for which it was collected or generated and reused for additional value.

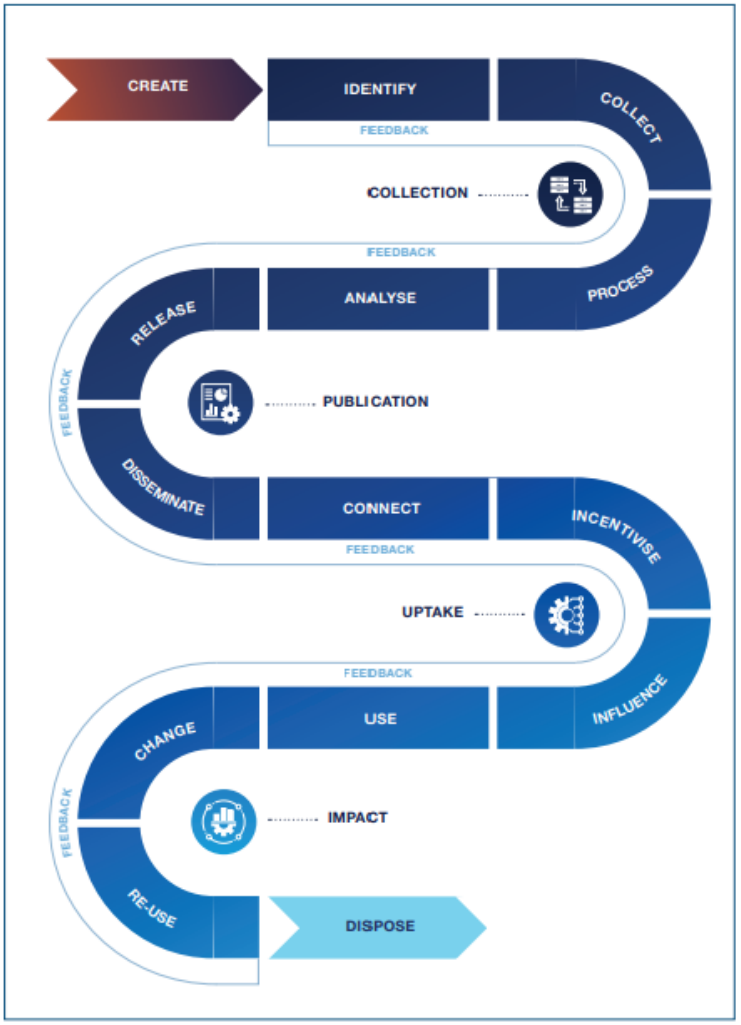
Preserve / Destroy
Actions are taken to safeguard the long-term viability and availability of the data or destroy it if retention beyond a certain time is undesirable.

Source: APS Data Capability Framework | Australian Public Service Commission

Example 2: NSW Government Infrastructure Data Management Framework – Data Management Lifecycle

Source: Data Management Life Cycle | Data.NSW





Example 3: Defence Data Strategy 2.0 - Decision Advantage in the Data Age – Data Value Chain

Source: Defence Data Strategy 2.0 - Decision Advantage in the Data Age | Defence

Example 4: AIHW Data Governance Framework 2022 (Public Edition)

Source: AIHW Data Governance Framework 2022

PART 6 – AIHW DATA POLICIES, GUIDELINES AND PROCEDURES

SECTION 49 - MANAGING THE DATA LIFE CYCLE

- *Collection establishment*
  - Proposals to establish a new collection
  - What constitutes an AIHW data collection?
  - Approval to establish a new collection
  - Data catalogue entry
  - Listing collections on the AIHW Web Site
  - Data Collection Management Principles
  - Quality Framework
- *Data acquisition*
  - Metadata
  - Data validation and data quality
  - Data storage and security
- *Data access and use within AIHW*
  - Access to AIHW ICT systems
  - Access to AIHW Research Only Network
  - Application of the separation principle
  - Data linkage
- *Data sharing and release for use outside the AIHW*
  - Data sharing and release
  - Preconditions for data sharing or release
  - De-identification
  - Approval for data sharing or release
  - Access arrangements for data sharing and release
  - The Five Safes framework
  - AIHW Data Governance Framework
  - Conditions for data sharing
  - Managing Statistical Outputs
  - Register of data shared or released
- *Data archiving, return, collection retirement and destruction*
  - AIHW data collections
  - Project specific data sets