Policy & Data integration in Oman

Air Commodore Ahmed Saif Al-Badi

Head of National Survey Authority

Presentation Outline

Introduction

National Survey Authority (NSA)

Main Focus

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Current Process of Accessing Geospatial Data in Oman

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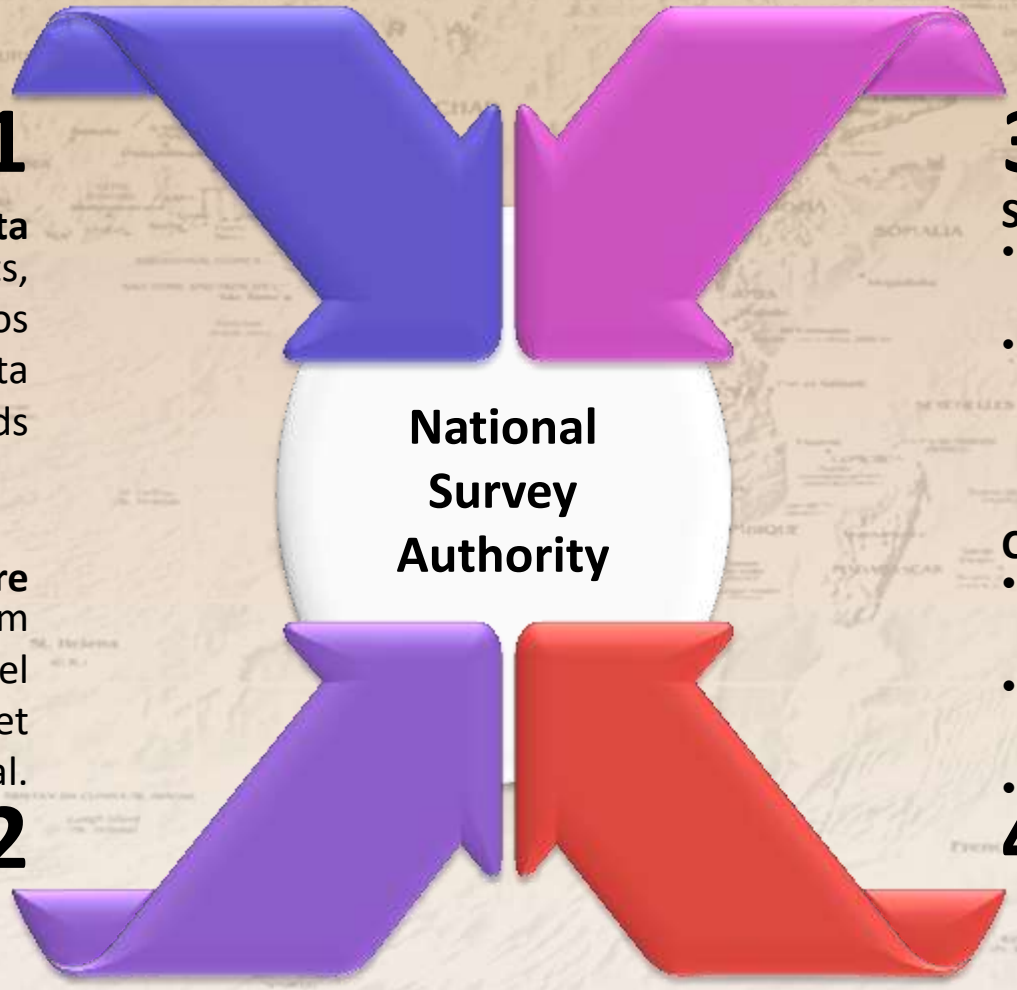
Summary

Introduction

- Data sharing and integration is crucial to an effective and efficient government and society.
- The ability to share and integrate data with other organisations enables the creation of better information and allows more informed decision-making based on the evidence presented in the data.

National Survey Authority



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Geospatial Data

- Maps, Charts,
- Satellite Images, Aerial Photos
- Vector Data, Elevation Data
- Names, GCPs, VOBs, Airfields

2

Geospatial Infrastructure

- Local Datum
- Geoid Model
- OmanCORSNet
- Geospatial Manual.

3

Skilled Manpower

- Trained & Experienced Omani Workforce
- Members of many National & International Conferences/Workshops/Initiatives

4

Capability Development

- Institute of Topographic Science
- National Diploma courses in Geospatial Information
- Short Term Courses

Main Focus - (National Survey Authority) NSA

- Infrastructure
- Standards & Specifications
- Rational Database
- Technical Assistance
- Coordination
- Cooperation
- Support
- e-Services

Geospatial Infrastructure created by NSA

Topographic Mapping

Raster & Vector

1:50,000 &
1:100,000 scale

Localized Datum

ONGD-17

First established in
2014 and then
updated to epoch
2017

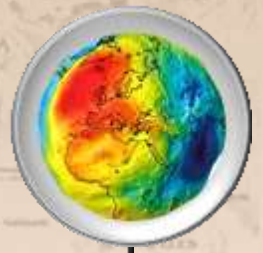
OmanCORSNet

Network of 47 stations (40 new, 6 Ministry of Housing, 1 Suhar Municipality

To get cm level
accuracy in Survey

Vertical Datum

OmanGeoid



For accurate
Orthometric
Heights

Oman Geospatial Manual

Specification/ Standard

Detailing requirements for
any geospatial activity

Current Process of Accessing Geospatial Data in Oman

The current process for gaining access to geospatial data is a manual one. The requesting Ministry, Authority or organisation is required to write a formal letter to the provisioning Ministry, Authority or organisation requesting the data. The letter should include the following:

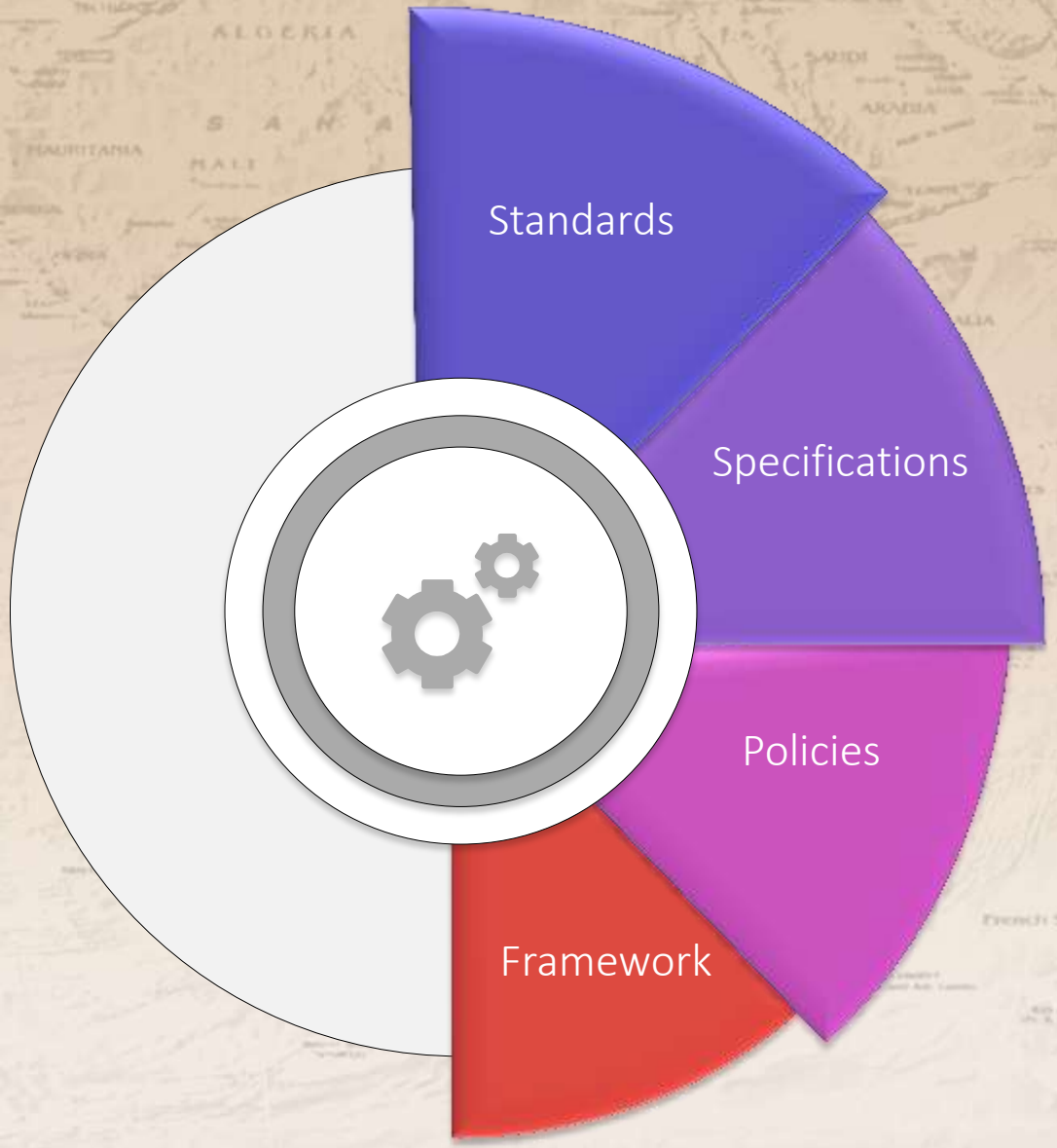
- Details of the requesting Ministry, Authority or organisation

- Details of the data requested

- Details of the intended use of the data

- Details of a nominated person responsible for data security if the data is provisioned

Oman Geospatial Manual



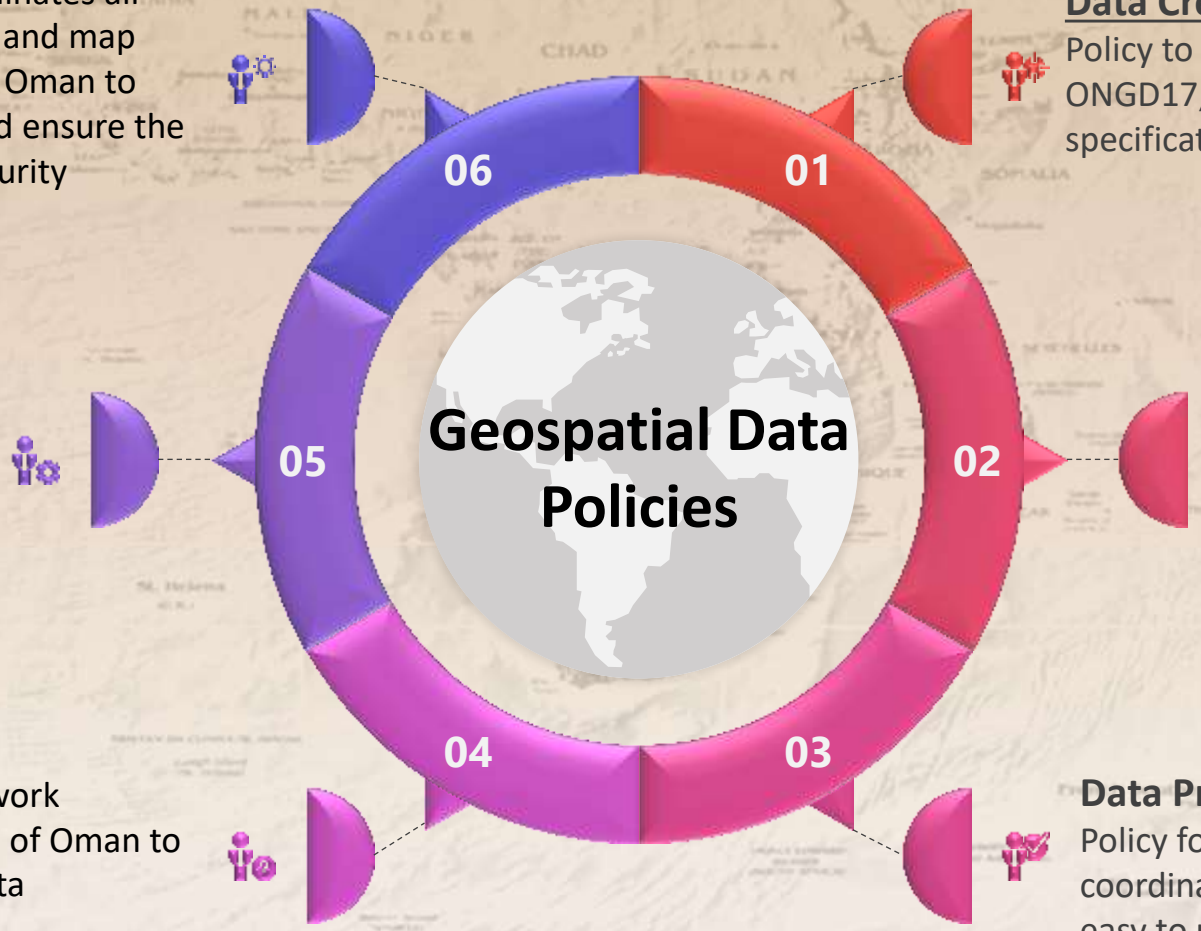
NSA - Geospatial Data Policies

Data Use

NSA authorises, controls and coordinates all survey activity, aerial photography and map production within the Sultanate of Oman to assess the security implications and ensure the resultant data does not breach security protocols.

Data Creation

Policy to use OmanCORSNet, local datum ONGD17, Oman Geoid, Data capture specifications and standards, Quality Assurance



Data Dissemination

the data must be made available to those that need it, so data dissemination is essential to the mission of the Authorities that create it.

Data Management

Policy for Data Management standards, OGC Reference Framework, Considering data as an Asset

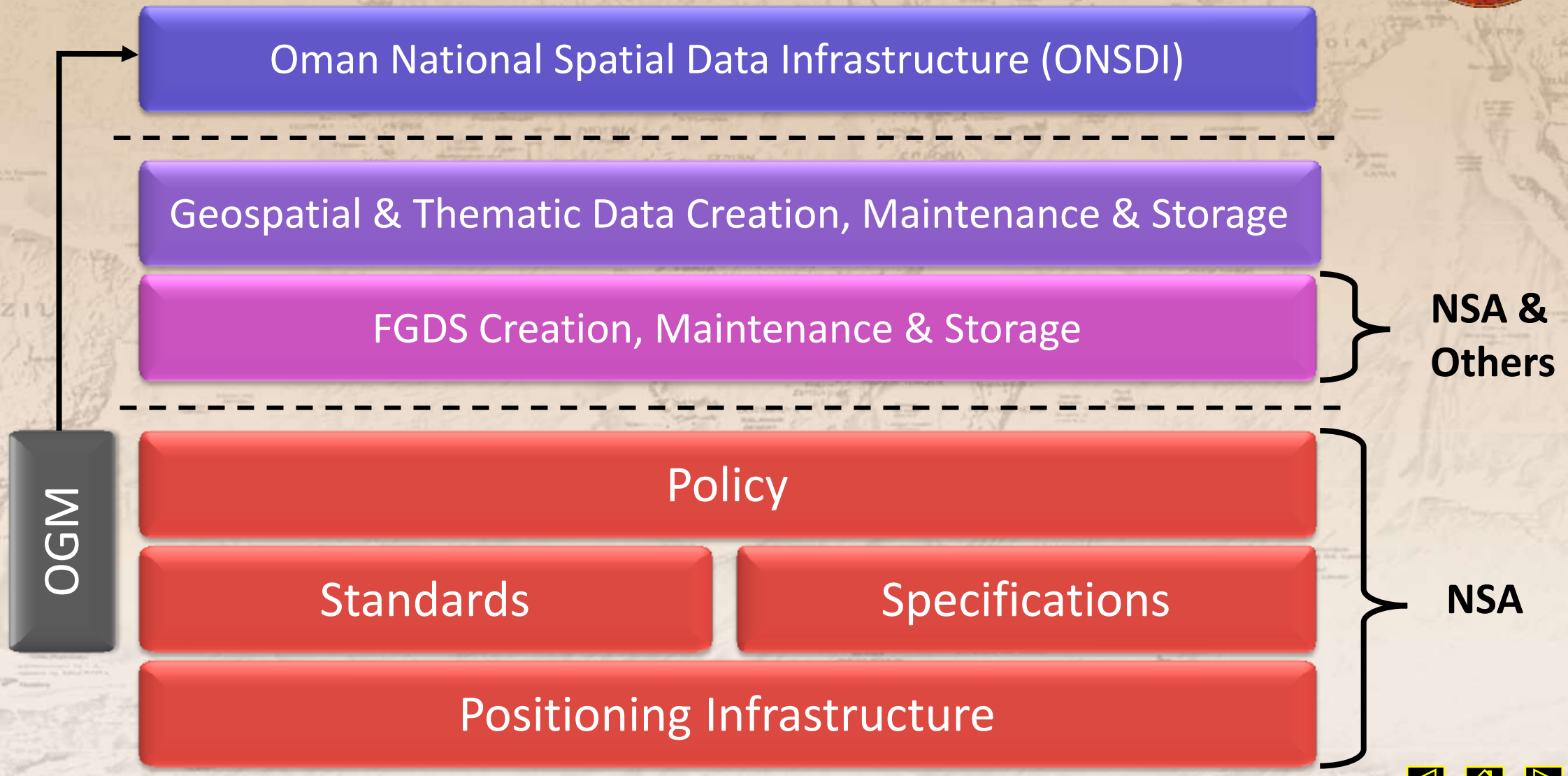
Data Sharing & Exchange

The data sharing policy recognises work currently underway in the Sultanate of Oman to create an Oman National Spatial Data Infrastructure (ONSDI).

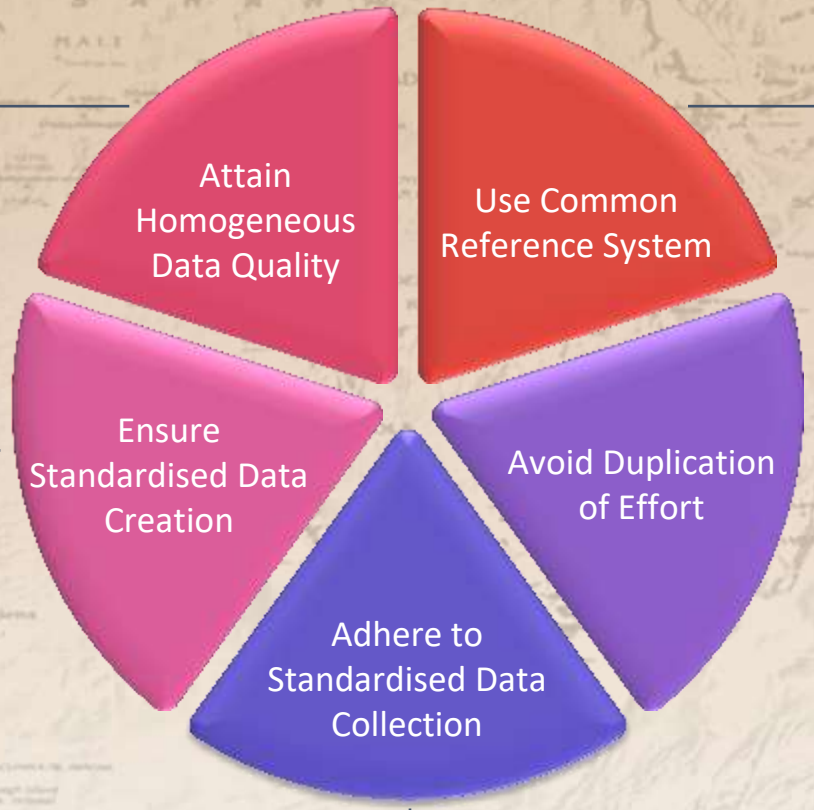
Data Processing

Policy for data transformation from any coordinate system to ONGD17, customized easy to use Transformation software package

Role of OGM (Oman geospatial Manuals) to support ONSDI



Factors contributing to smooth Data Integration



The policy for data quality includes details on the creation of Quality Plans, Accreditation, Acceptable Quality Levels (AQLs) and monitoring to ensure the production of quality data.

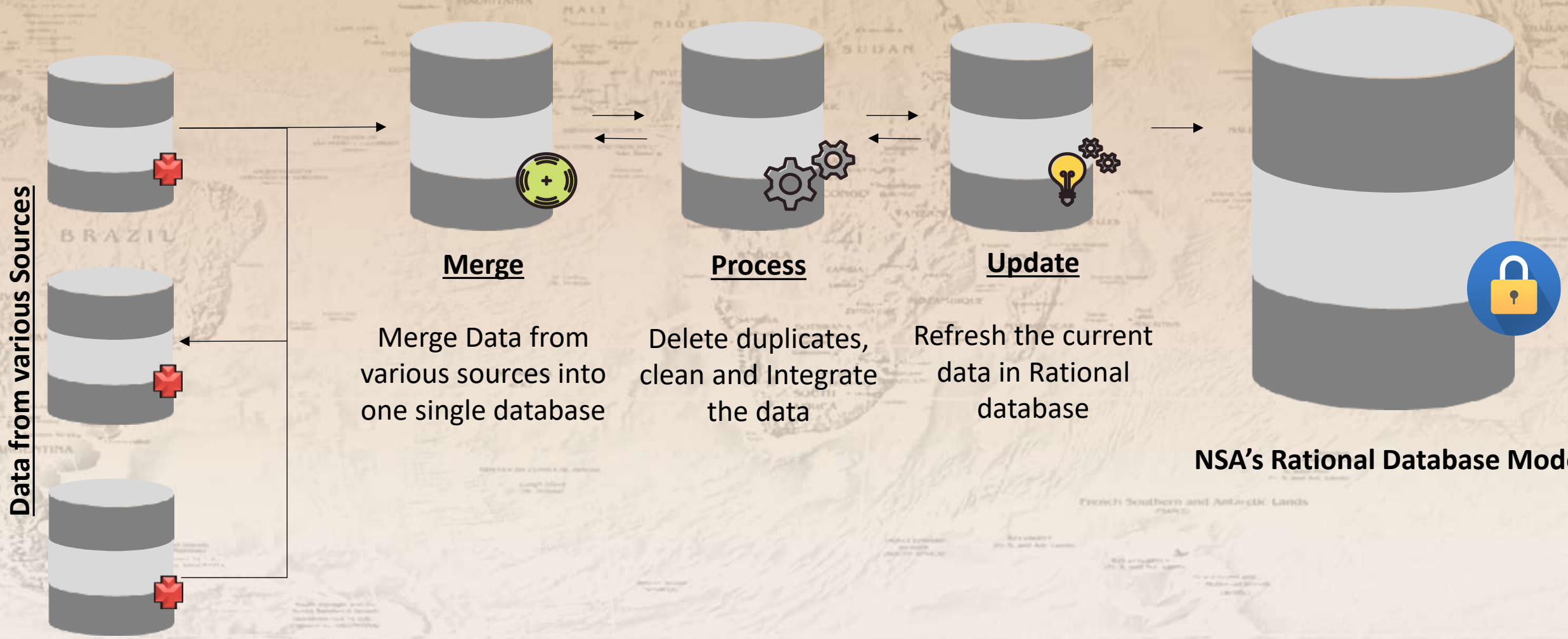
Oman National Geodetic Datum (ONGD17) provides a positioning infrastructure (horizontally and vertically) specifically suited to the Sultanate of Oman's geographical location. This means that both the positional and relative accuracy of geospatial data improves..

The Oman Geospatial Manual supports a standardised approach to data creation. It provides details of the policy and generic standards for the creation of geospatial data, including FGDS, data processing and data management, including metadata, data sharing and data security.

The Oman Geospatial Manual clearly defines the Fundamental Geospatial Data (FGDS) for the Sultanate, and details the organisations responsible for its creation, maintenance and dissemination. This ensures that there is no duplication of effort in the creation of FGDS as all organisations can identify what data already exists and where it can be accessed..

The Oman Geospatial Manual supports a standardised approach to geospatial data collection. It provides details of the policy and standards for the collection of geospatial data, including the use of the survey infrastructure, the undertaking of control and detailed survey, and survey maintenance and revision.

NSA's Approach to Data Integration in Oman



Onstacles in Data Integration

Legal

- Rights, Restrictions, Responsibilities
- Copyright
- Data Access & Privacy

Technical

- Lack of Standards & Specification
- Absence of Collaborative Approach
- Need based data creation

Obstacles

Social

- Cultural Issues
- Lack of Communication

Institutional

- Lack of Data Awareness
- No linkage between data management units

Summary

Data Responsibility

Clear responsibility for the collection, creation and maintenance of these datasets should be established, and they should be collected once and used many times.

Improved Data Security

a mechanism for assessing the security risk of geospatial data and the security measures thereby helping improve the current data security approach whilst ensuring that appropriate geospatial data is still readily available and useable.

Geospatial Preparedness

Geospatial preparedness refers to the necessary capability and capacity of the government to produce and utilise geospatial data in a consistent and interoperable manner.

Standardised Data

Short-term benefits include increased interoperability between departments within national governments and the more effective and efficient sharing of information and knowledge. Longer-terms benefits include improvements to management of national budgets through better decision-making and policy setting, and the potential to support economic growth of a Nation.

Thank You