

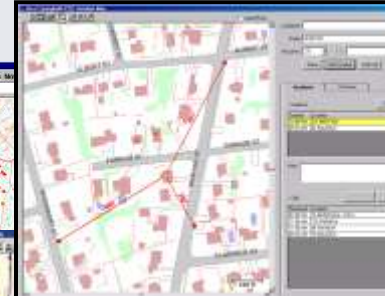
المركز الوطني
للإحصاء
والمعلومات

سلطنة عمان



NATIONAL CENTRE
FOR STATISTICS
& INFORMATION

SULTANATE OF OMAN



Oman National Geodatabase - NGDB

Oman National Spatial Data Infrastructure

Enabling GeoSmart Oman

Ahmed Naji Arrar

Geospatial Database Administrator – Spatial Data Department,
Directorate General of National Spatial Data Infrastructure,
National Centre for Statistics & Information



www.ncsi.gov.om

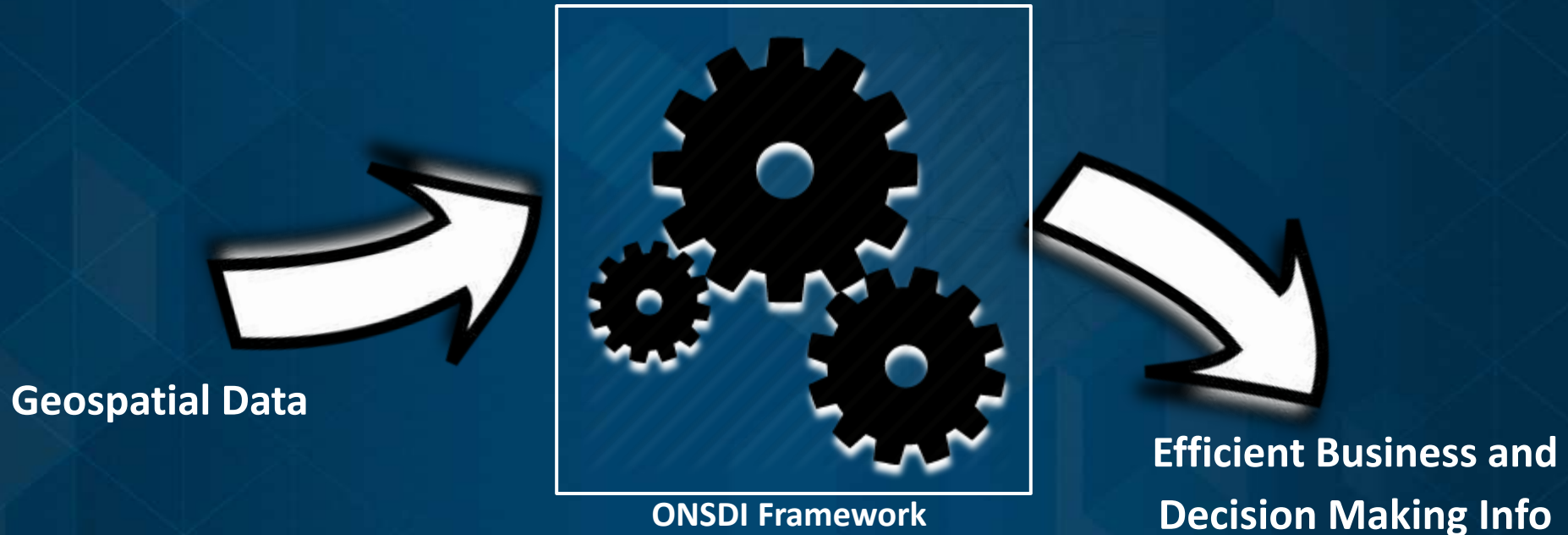
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البنية الوطنية للمعلومات الجغرافية
National spatial data infrastructure

2017

The Beginnings



Data = SDI's Base

The Beginnings

Ensure Data

Availability



Standardization



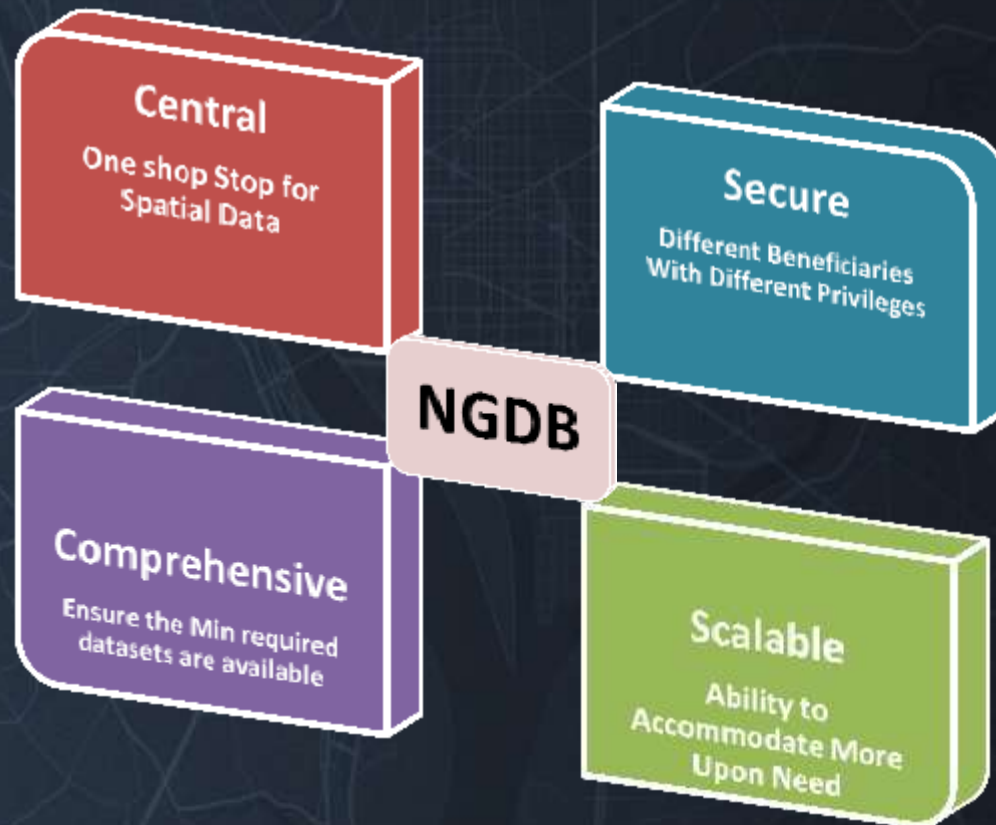
Sharing



Data Model
For the Nation

The Beginnings

The **N**ational **G**eospatial **D**ata**B**ase



The Beginnings

Do We Have To Reinvent The Wheel?

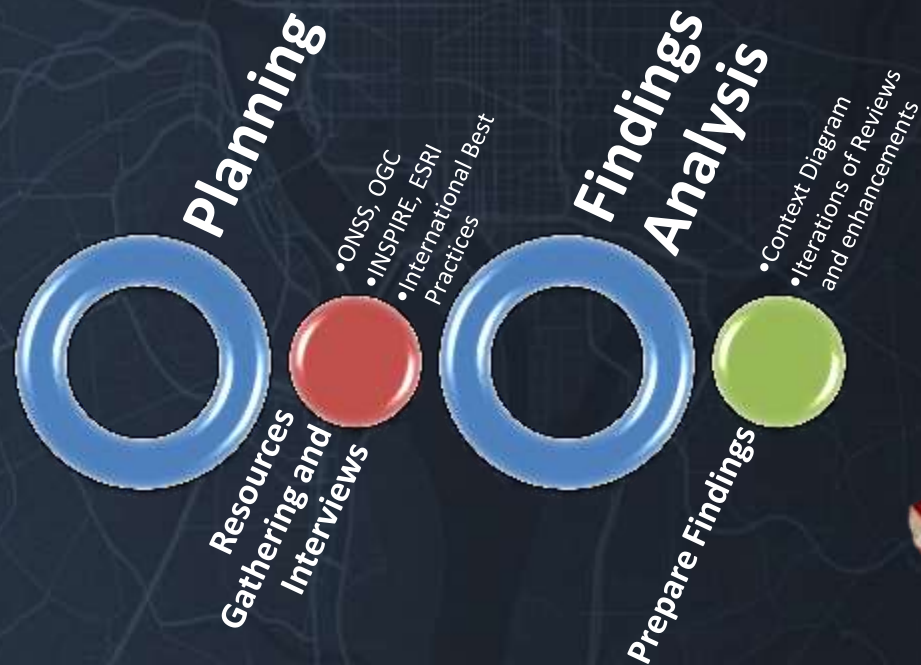
The Workflow

- Gather Resources:
 - ONSS
 - OGC
 - ISO
 - ESRI
 - International Best Practices
 - INSPIRE (EU SDI)
 - FGDS (US SDI)
- Review.



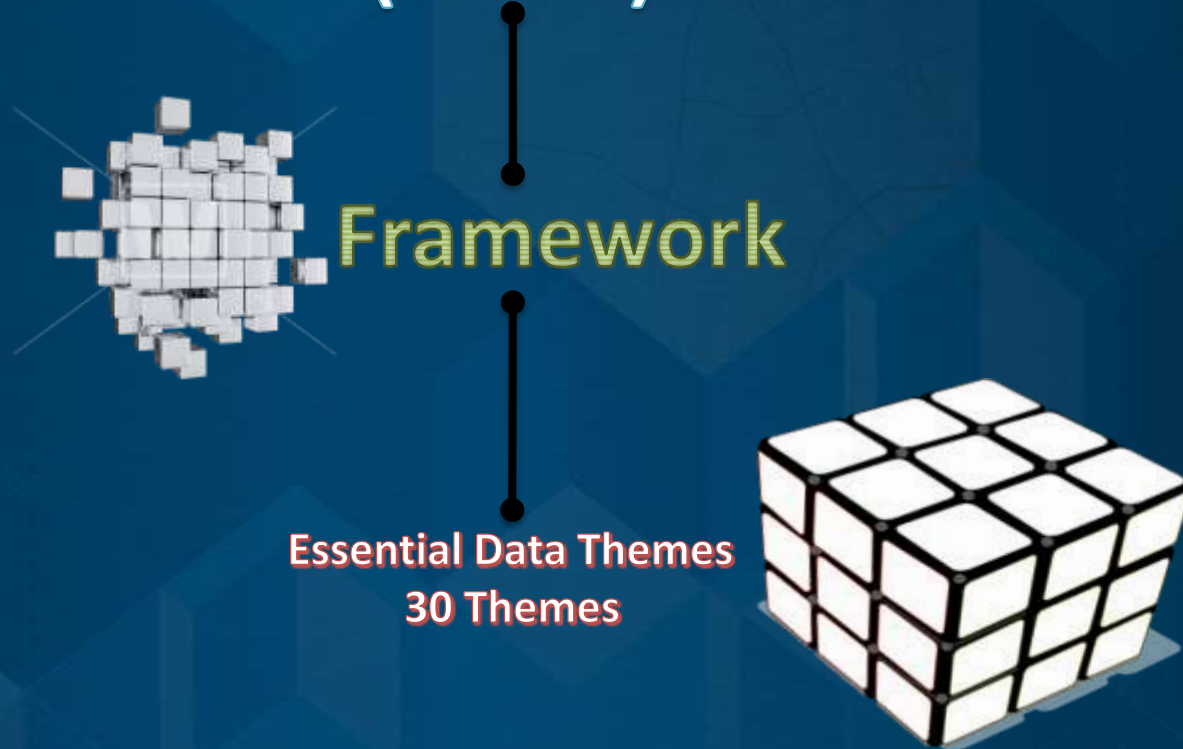
The Workflow

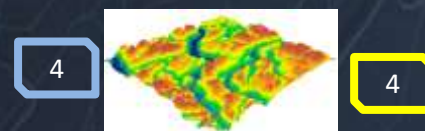
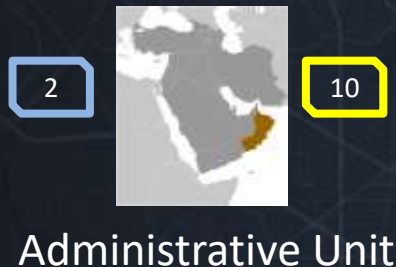
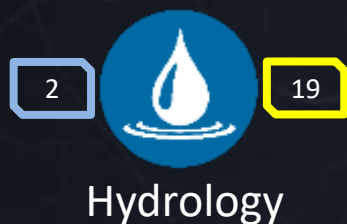
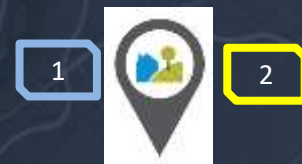
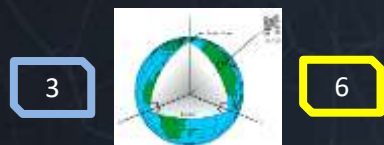
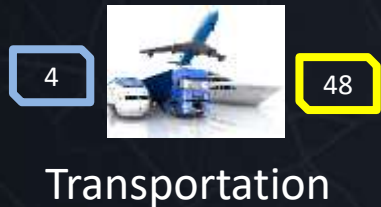
- Prepare the findings - [NGDS](#)
 - Identify Set of Themes
 - Comply with Omani uniqueness
 - Review and Enhance
 - Approve by TEC



The Workflow

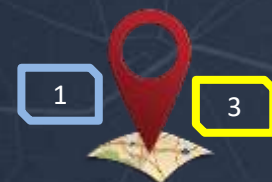
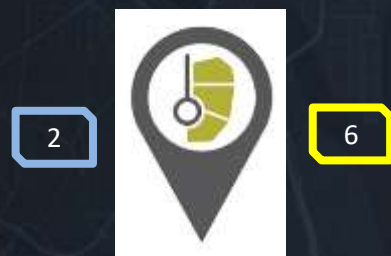
National Geospatial Data Sets (NGDS)





Geographical Places Names

Imagery



Land Use

Cadastral Parcels

Protected Sites

Addressing



Buildings



Soil



Industrial Activities



Historical Sites



Public Services



Fisheries and
Aquaculture Facilities



Environmental
Monitoring Facilities



Mineral Resources



Tourist Sites



Energy Resources



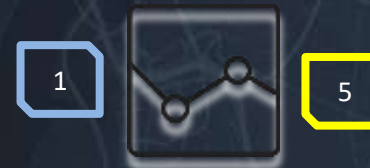
Habitats and Biotopes



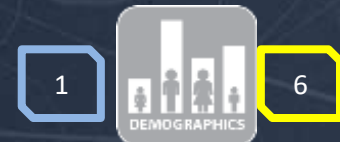
Agricultural
Facilities



Restricted Areas



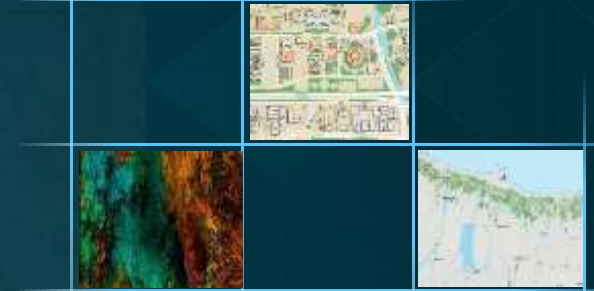
Statistical Units



Demography

The Workflow

- Prepare the Logical Model
 - Themes Break Down Into Data Sets
 - Identify Core and Supporting Themes
 - Documentation
 - More than 60 Datasets
 - and more than 320 Feature Classes
 - Approve by TEC



The Workflow

- Prepare the Data Dictionary
 - FCs structure
 - Domains
 - Relationships
 - Approve by TEC



The Workflow

How to provide???

Who Will Provide What???

When to Provide???

Which Format???

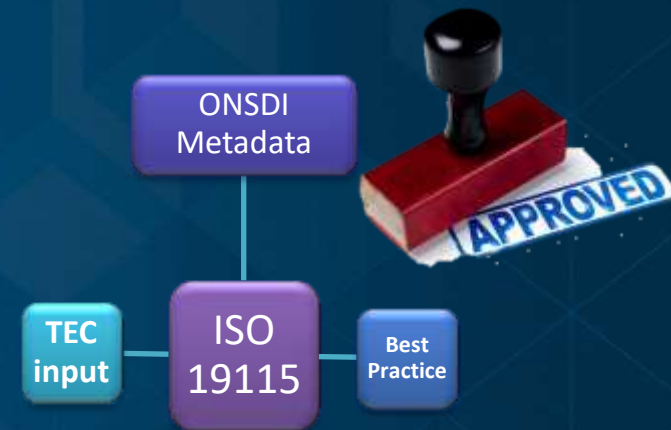
How to Update???

Which Structure???



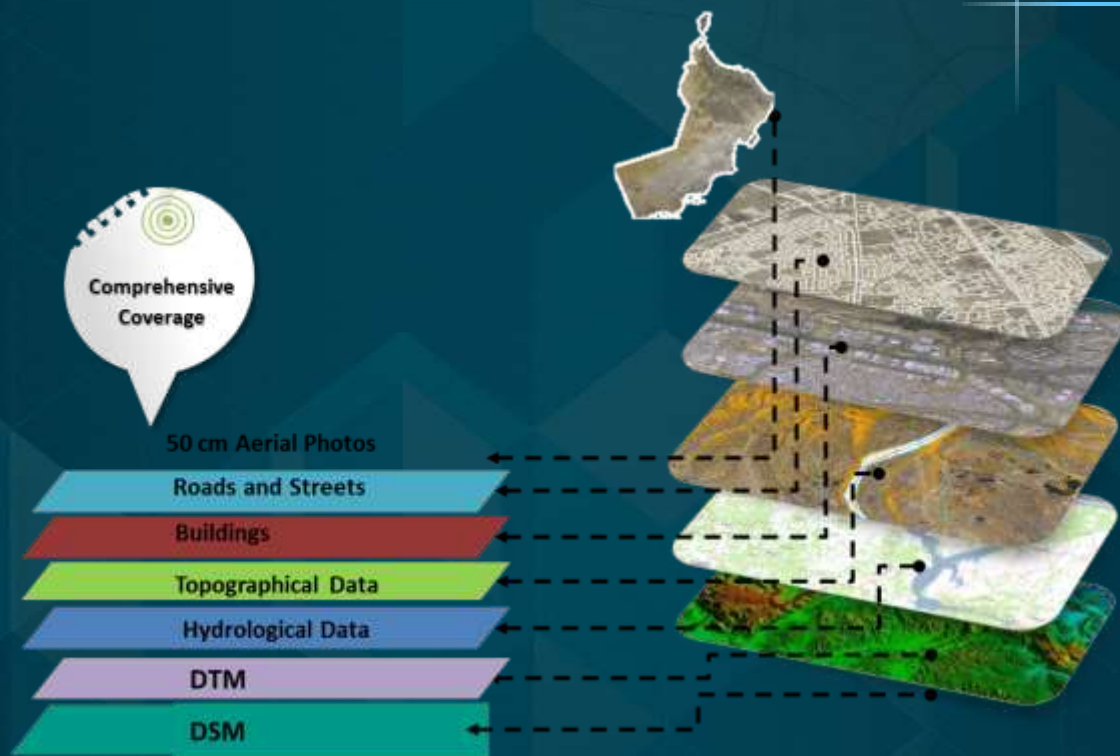
Governance

- Prepare Standards:
 - ✓ Data Ownership – Geospatial Data Ownership Report
 - ⚠ Data Content
 - ⚠ Data Quality
 - ⚠ Data Exchange
 - ✓ Metadata – ONSDI Metadata Standard



Governance

Unified National Basemap



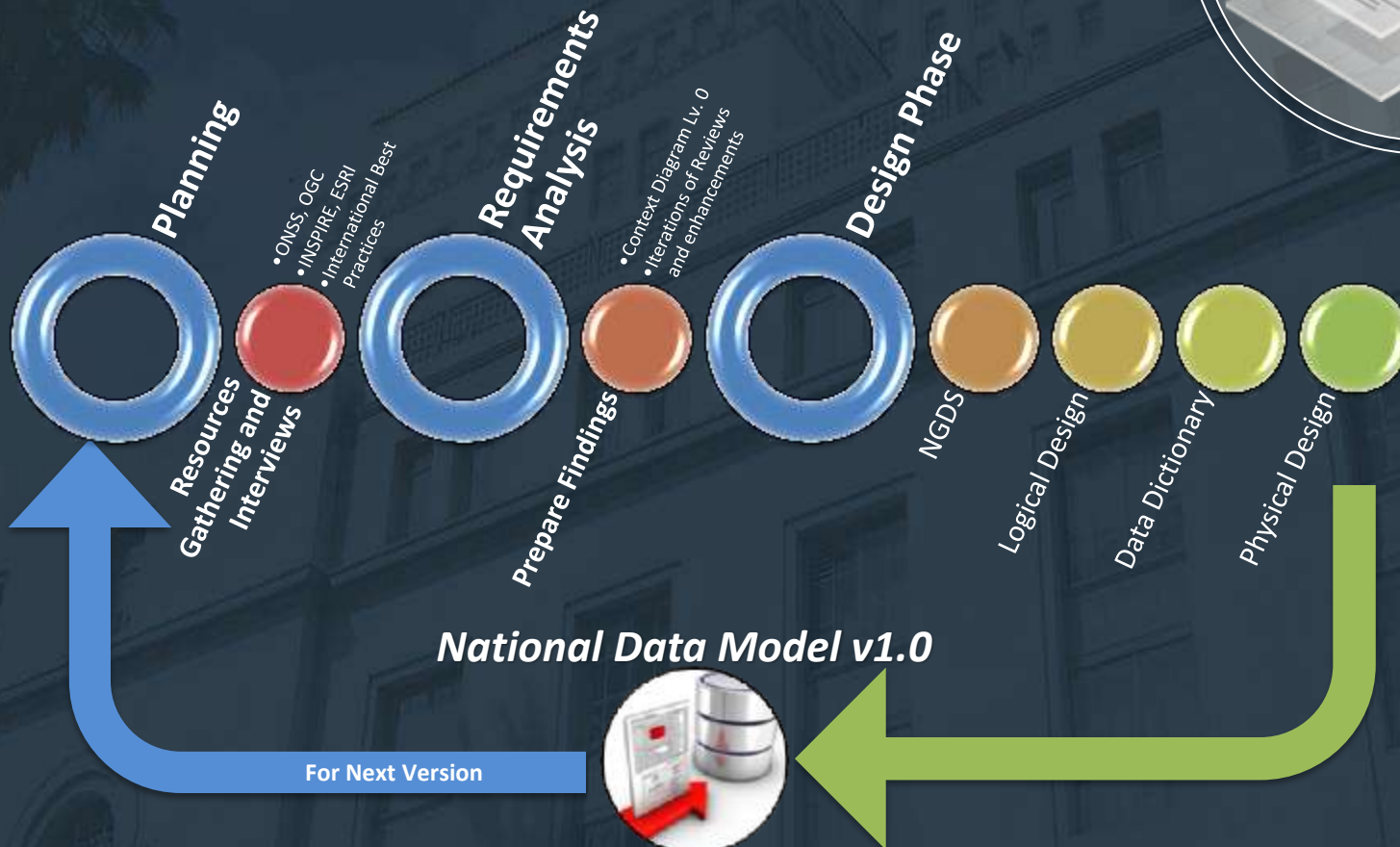
The Present

- Start Data Population:
 - Data Loading via GeoPlatform
 - Data Gap Analysis – Approved by TEC
 - Prepare the ETL Tools and Load
 - Coordinates Data Updates from Owners
 - Prepare the Map Viewer
 - Prepare the Map Services
 - Plan For Data Quality and Data Exchange Standards



The Future

- New Needs means
 - Enhanced NGDS
 - Enhanced Logical Design
 - Enhanced Data Dictionary
 - Enhanced Physical Design



An abstract graphic featuring a dark blue background with a subtle diamond pattern. Large, overlapping geometric shapes in shades of blue, purple, and green are scattered across the frame. In the bottom left corner, a teal-colored arch is partially visible. A blue arrow points from the text 'TEC Approval' towards the arch.





Q&A Session





Thank You...

