Defining SDSFIE* Enterprise Metrics and Compliance (and Making It Work)

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*Spatial Data Standard for Facilities, Infrastructure and Environment

The SDSFIE Compliance Challenge

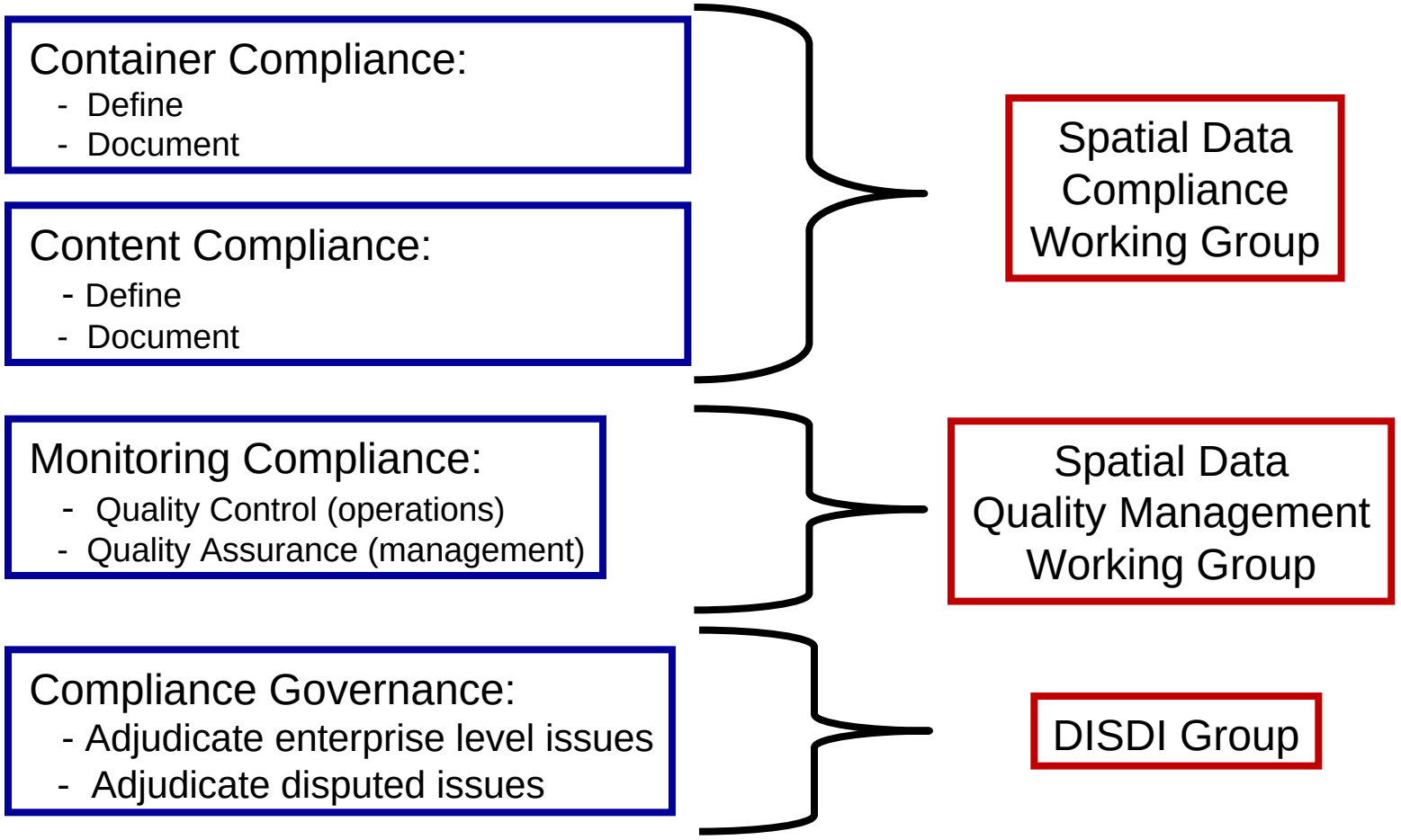
- Enterprise compliance overview
- The need for compliant containers
  - SDSFIE 3.0
  - External standards
- The need for compliant contents
  - Metadata documentation
  - Spatial data quality
- Monitoring compliance (making it happen)

ENTERPRISE COMPLIANCE OVERVIEW

Enterprise Compliance Drivers

- Interoperability
  - Data (information sharing)
  - Apps (build once use many times)
  - Users (train user once for all situations)
- NetCentricity (DODD 8320.02)
  - Visible
  - Accessibility
  - Understandability
- New enterprise business processes
  - Real property

Governing Compliance



Three Important Definitions

Metrics: Specific, measureable indicators of Standard implementation success.

Guidance: Documentation prepared specifically to direct the execution of a specific Standard implementation step.

Compliance: Standard implementation and operation in accordance with all established Standard metrics and guidance.

DEFINING CONTAINER COMPLIANCE

SDSFIE Upgrade Drivers

SDSFIE v2.x

- Auditory
- Boundary
- Buildings
- Cadastre
- Climate
- Common
- Communications
- Cultural
- Demographics
- Ecology
- Environmental Hazards
- Fauna
- Flora
- Future Projects
- Geodetic
- Geology
- Hydrography
- Improvement
- Land Status
- Landform
- Military Operations
- Real Property
- Utilities
- Visual

Entity Set: Buildings

Entity Classes:

Buildings_Administrative
Buildings_Commercial
Buildings_Facilities
Buildings_Governmental
Buildings_General
Buildings_Space

Entity Class: Buildings_General

Entity Types:

Slab Area
Potential_Explosive Site
Miscellaneous_Buidling_Line
Open Storage_Area
Structure_Foundation Line
Structure Existing_Site

1) Eliminate Redundancy.

2) Align with current business processes.

3) Isolate business data.

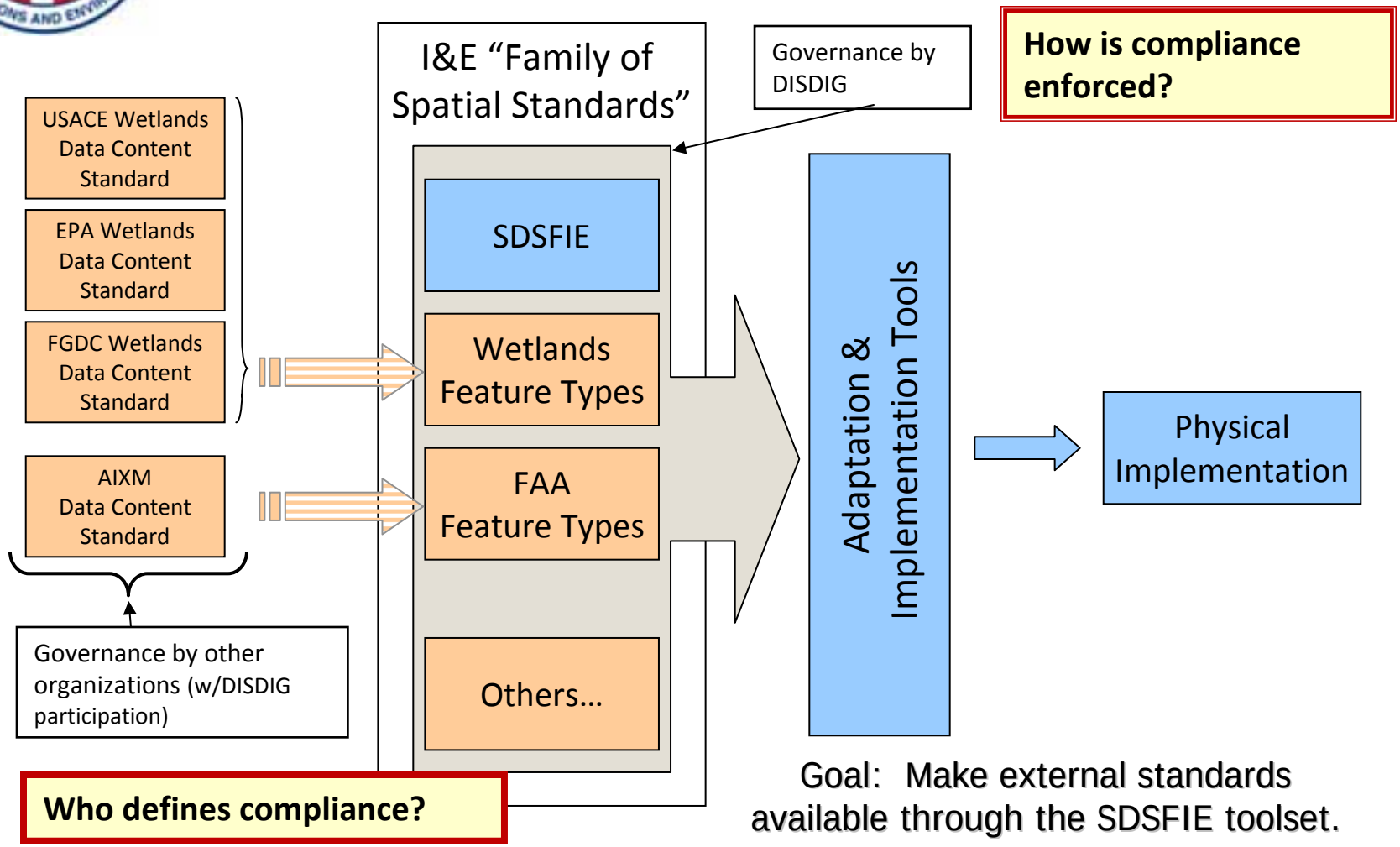
4) Support Interoperability.

5) Share Information.

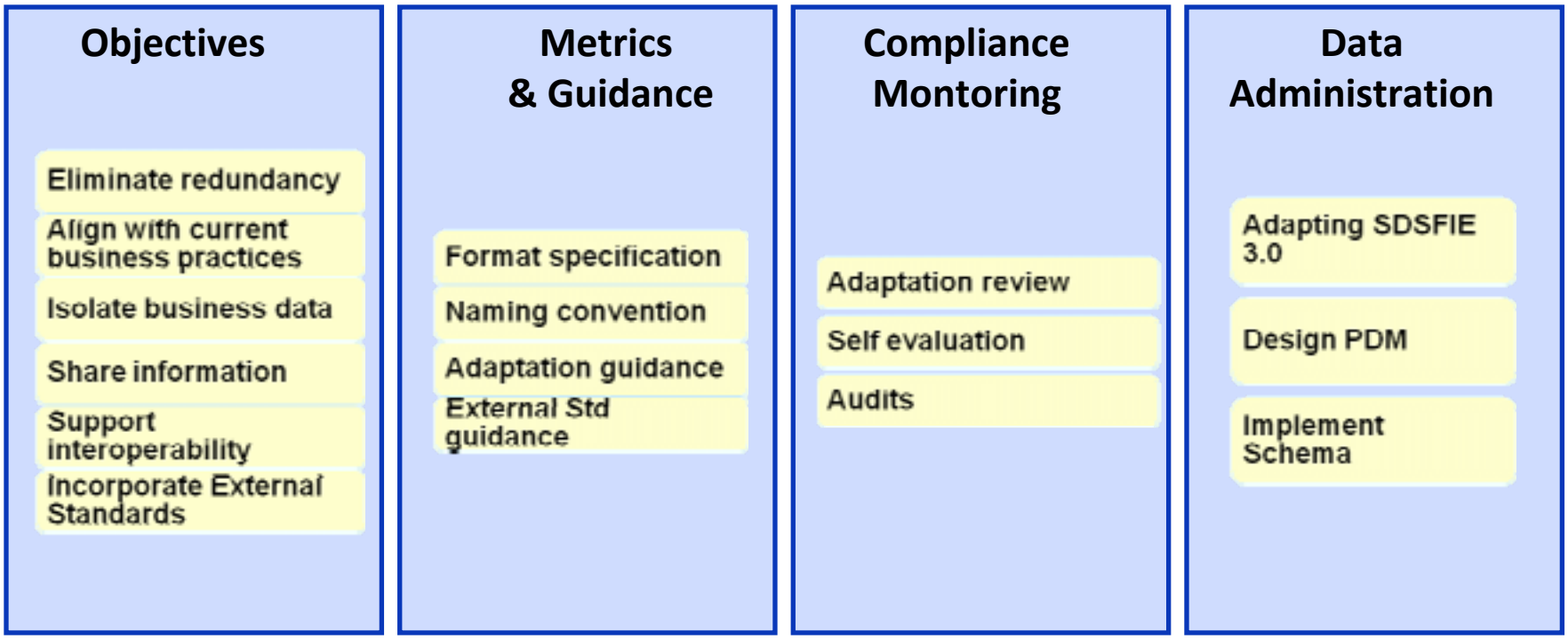
Example attributes:

Heattype_d
Inspec_date
Num_ambul
Num_EMS
Phn_type_d
72 other attributes

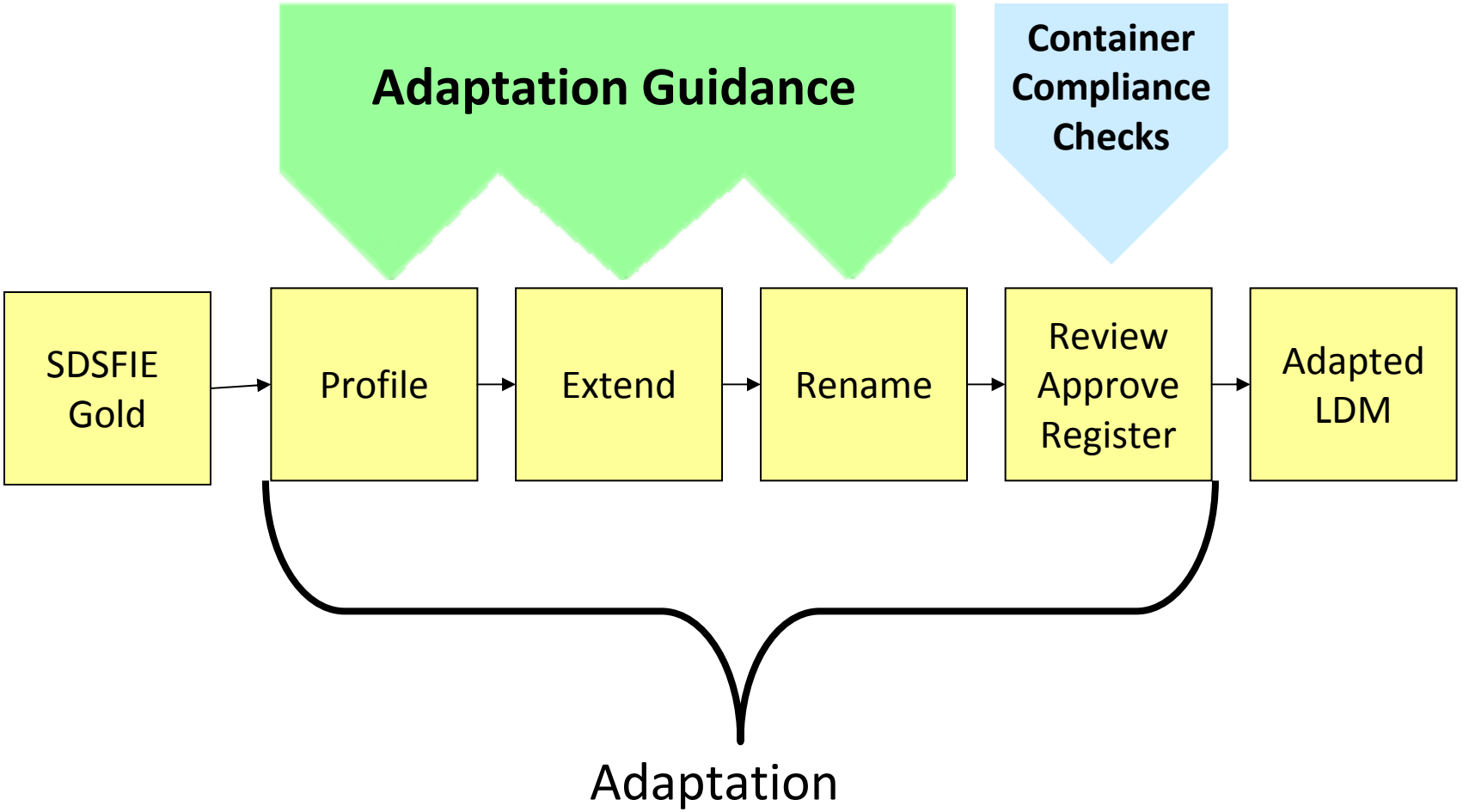
External Standard Compliance Issues



Container Compliance – a Conceptual Model



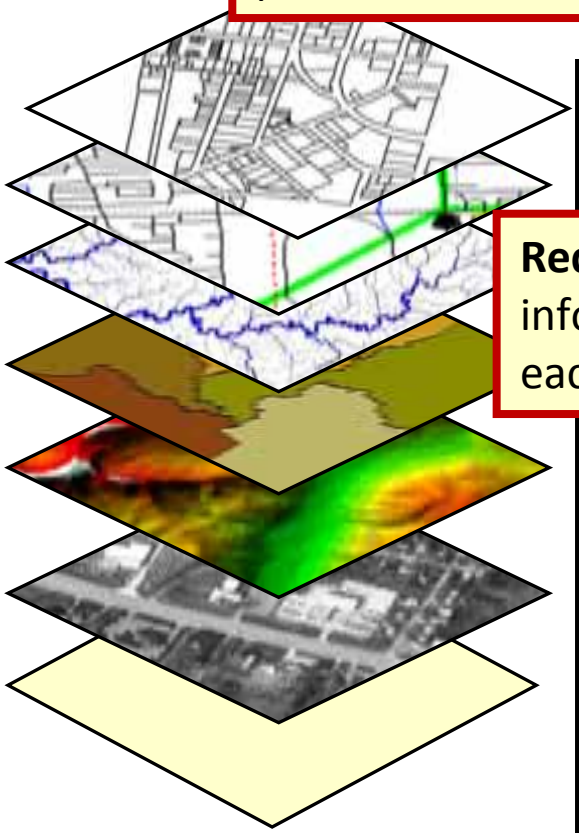
SDSFIE Adaptation Compliance



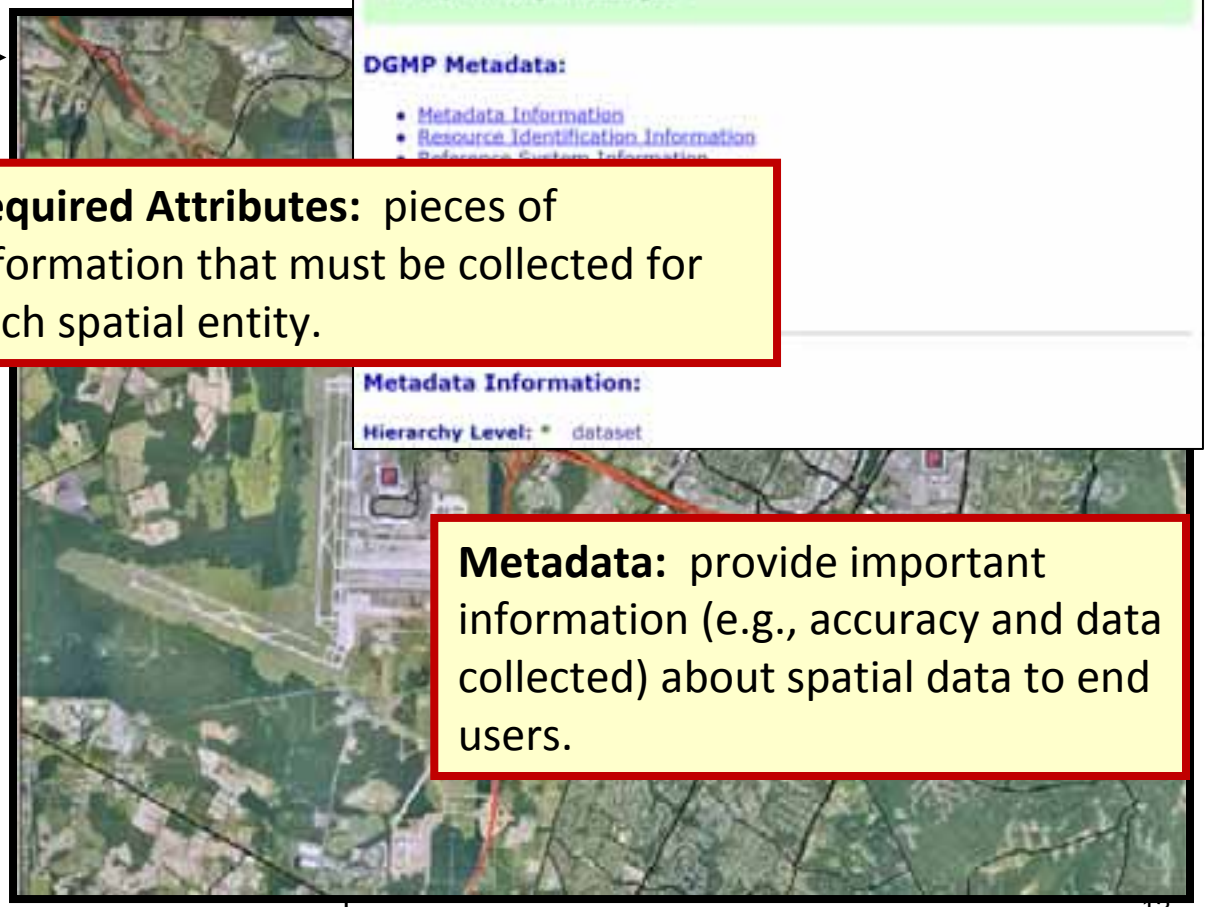
DEFINING CONTENT COMPLIANCE

Tabular Supporting Data Issues

Correct Coded Values: predefined coded values.

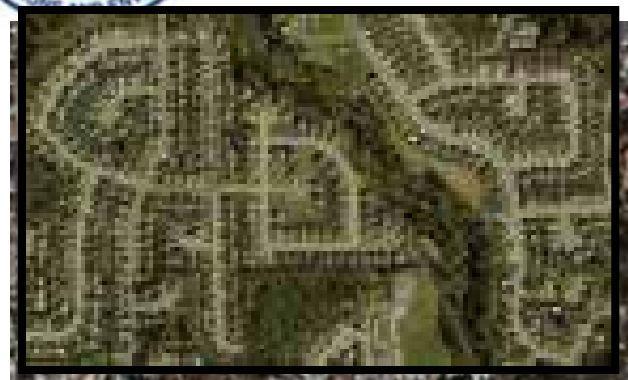


Required Attributes: pieces of information that must be collected for each spatial entity.



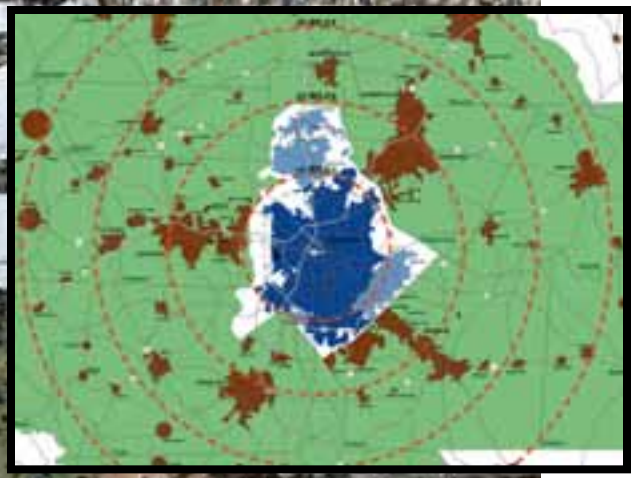
Metadata: provide important information (e.g., accuracy and data collected) about spatial data to end users.

Spatial Data Content Issues



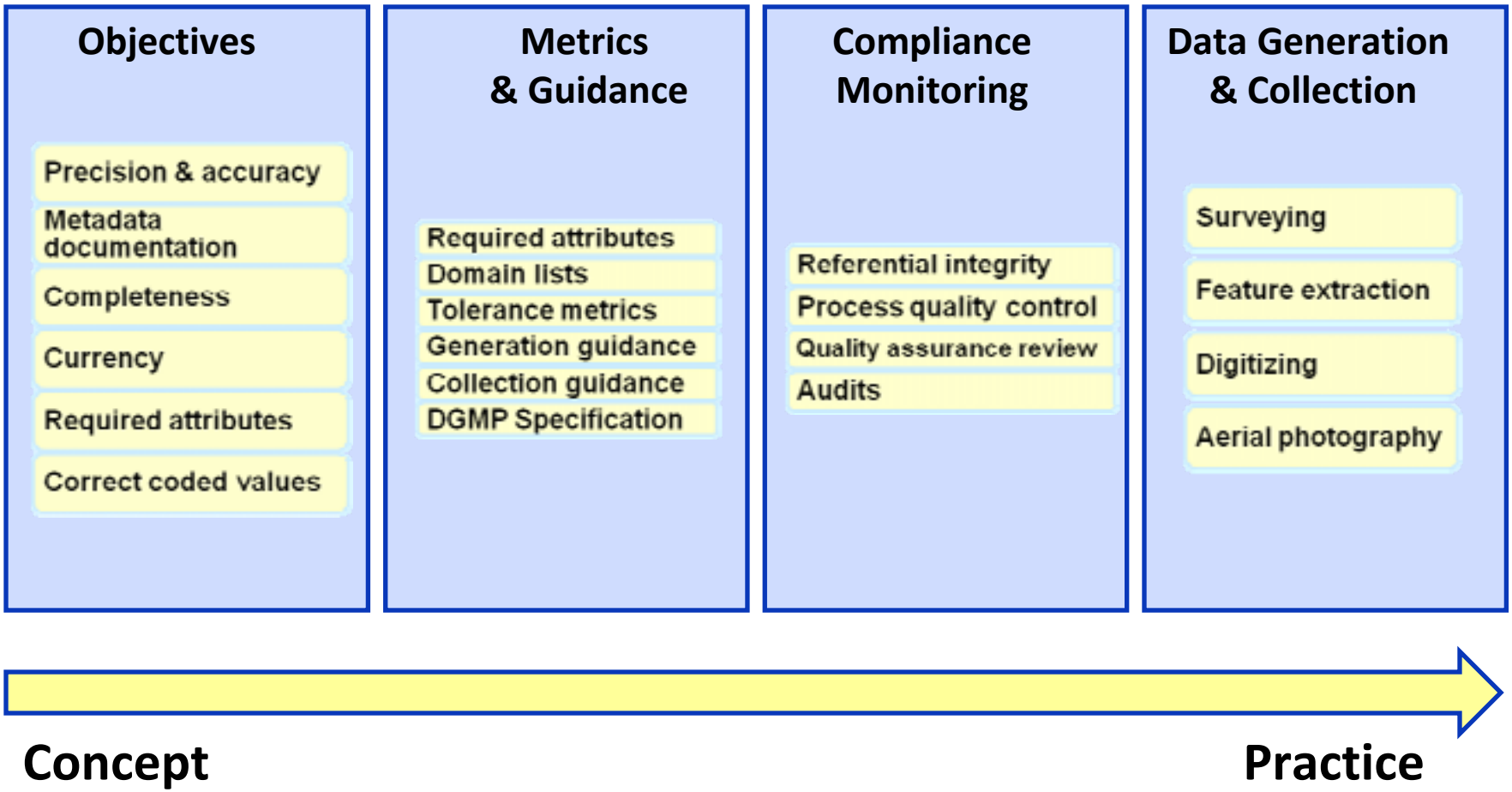
Accuracy/Precision: how well spatial data represent the real world location of the entities being represented.

Completeness: state of having everything that is needed.



Currency: state of being up to date.

Content Compliance – a Conceptual Model



MONITORING COMPLIANCE (making it happen)

Quality Management Concepts

Quality management is a system of operational business processes and management structure to ensure a product is compliant with all metrics and guidance established by the product's end user community.

Quality Management Framework

Functions:

1. Data Creation
2. Data Administration
3. End Use

Operational

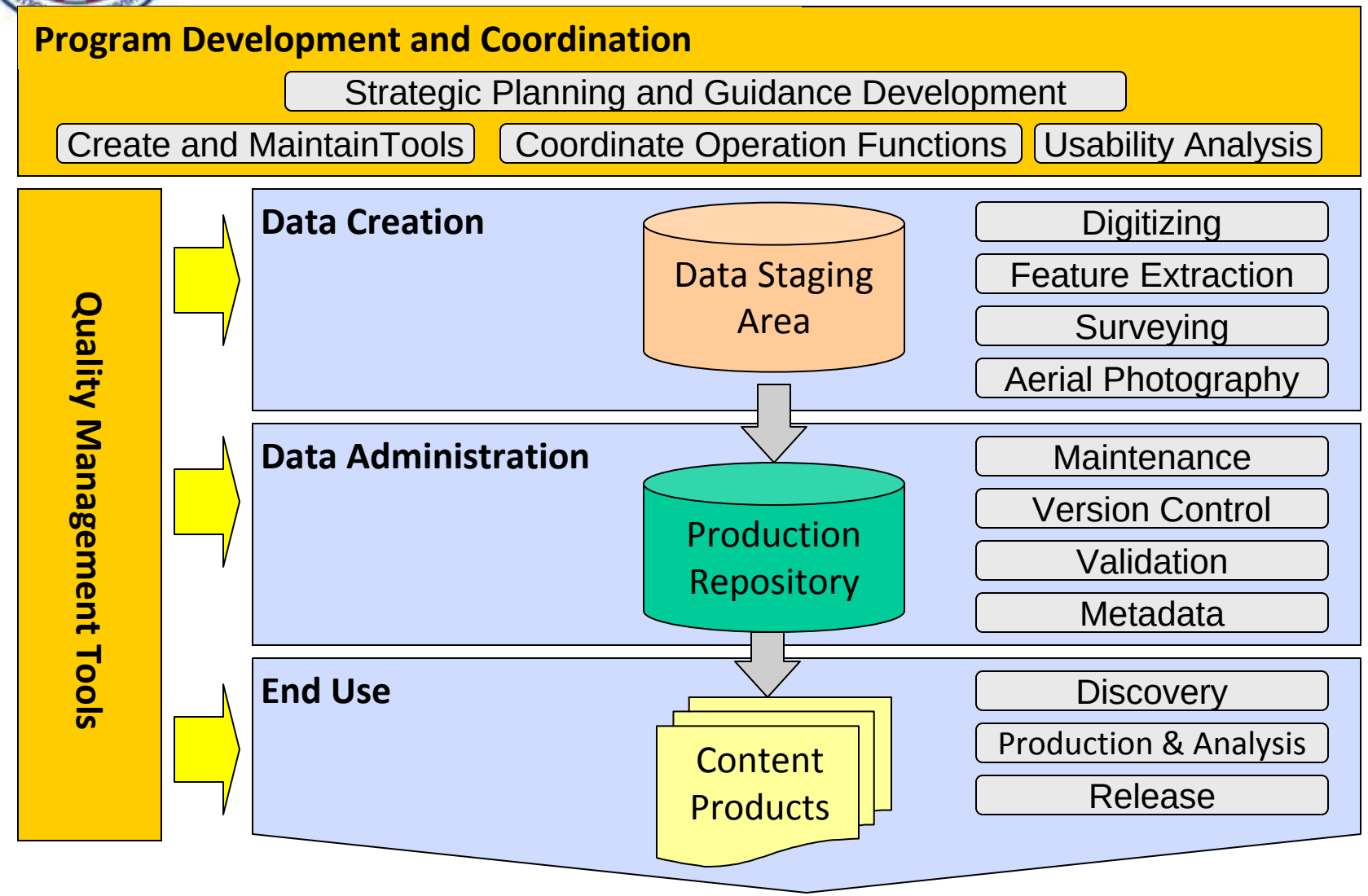
4. Development and Coordination

Management

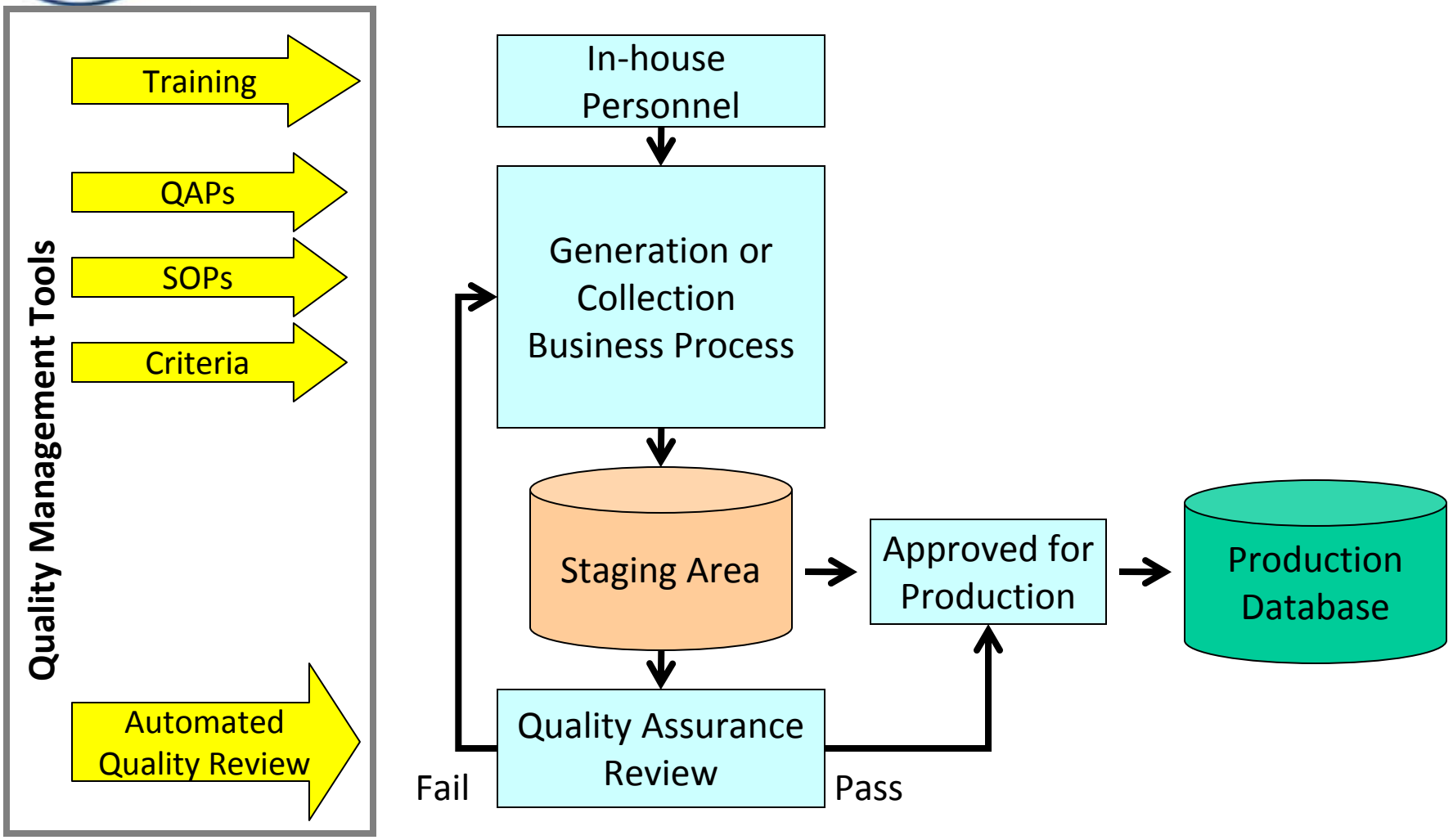
Tools:

- Data Standards
- QAPs
- SOPs
- Criteria
- Contract Language
- Policy
- Training
- Help Desk
- Automated Review Tools

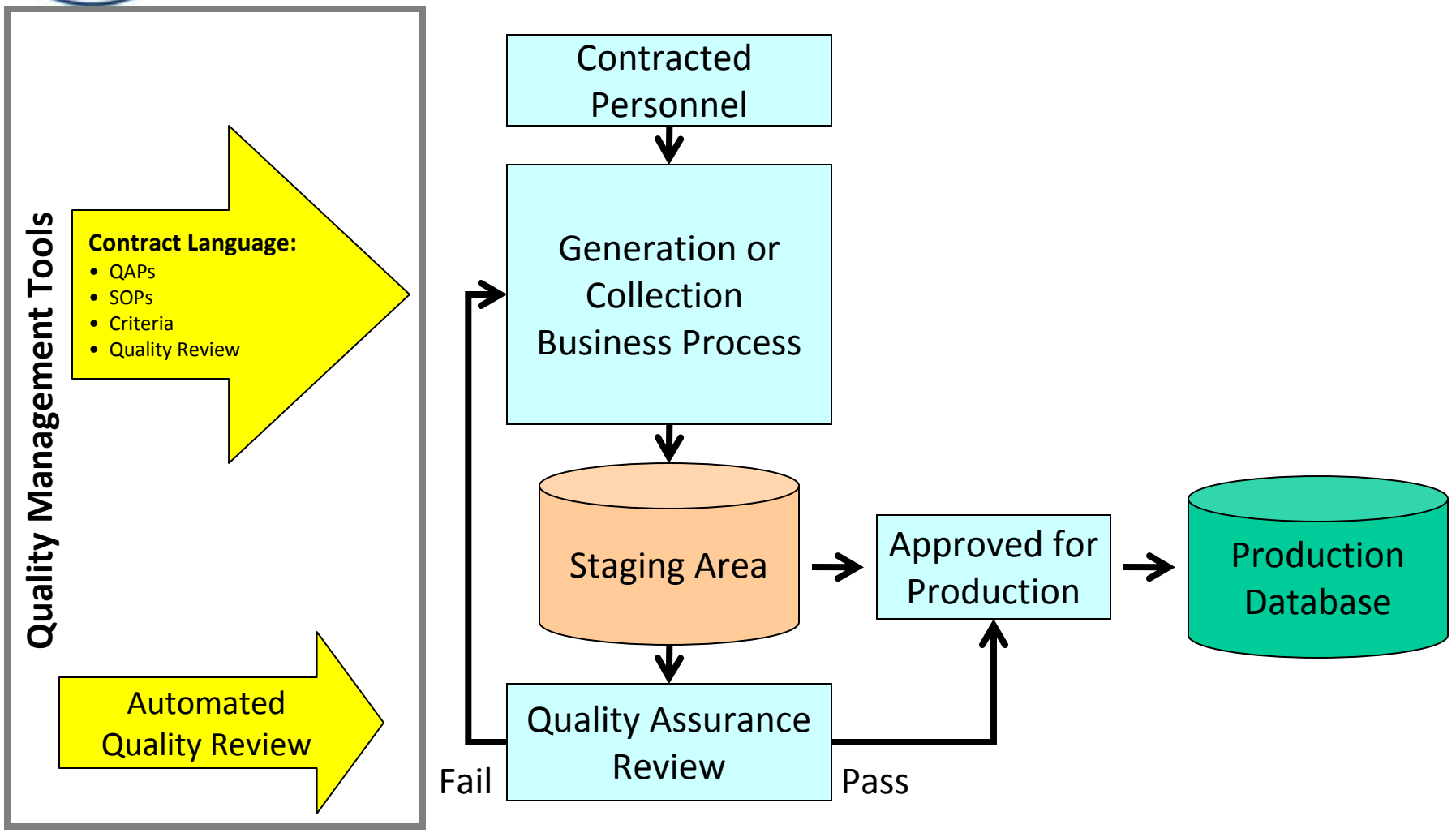
Quality Management Framework



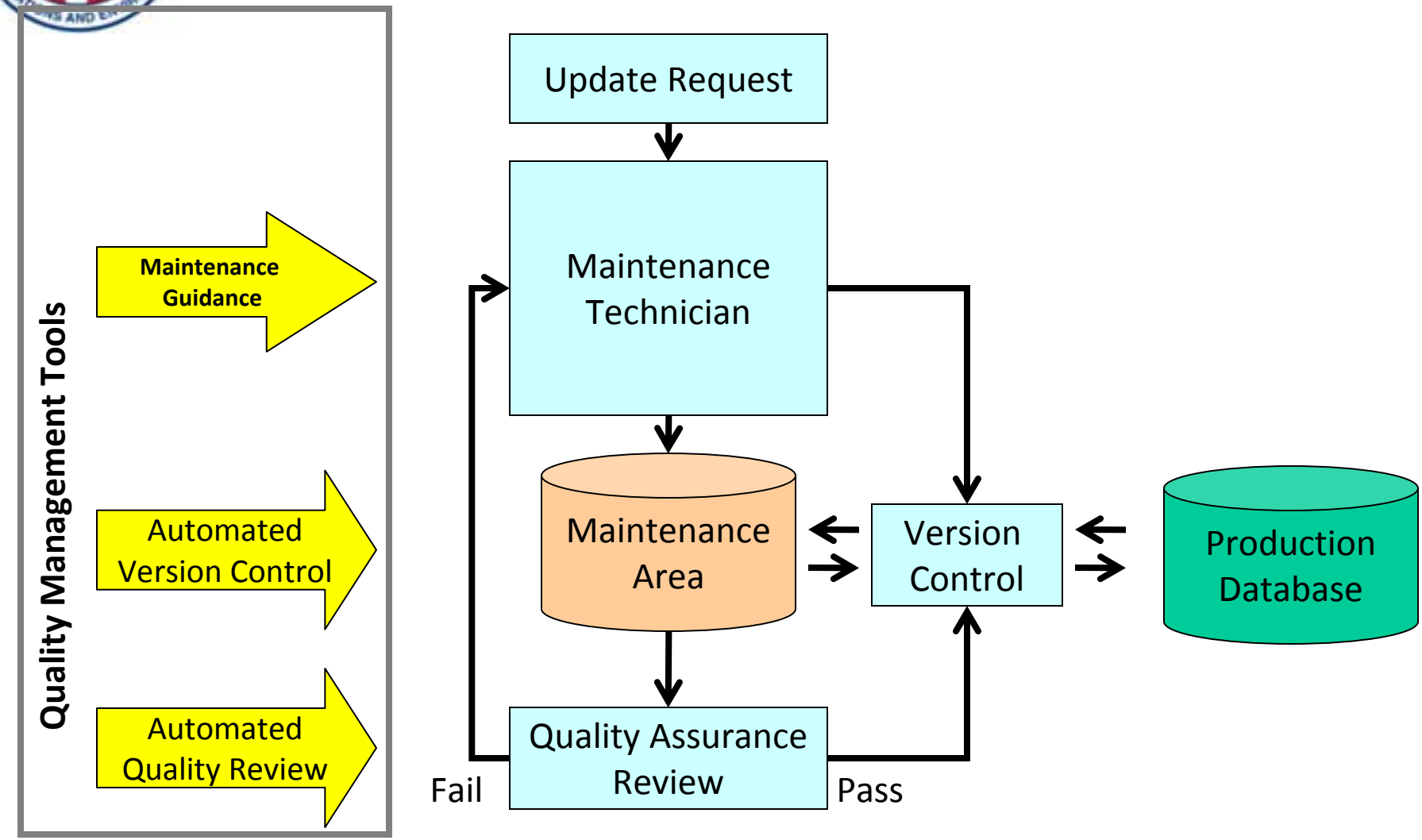
Data Creation: In-house Resources



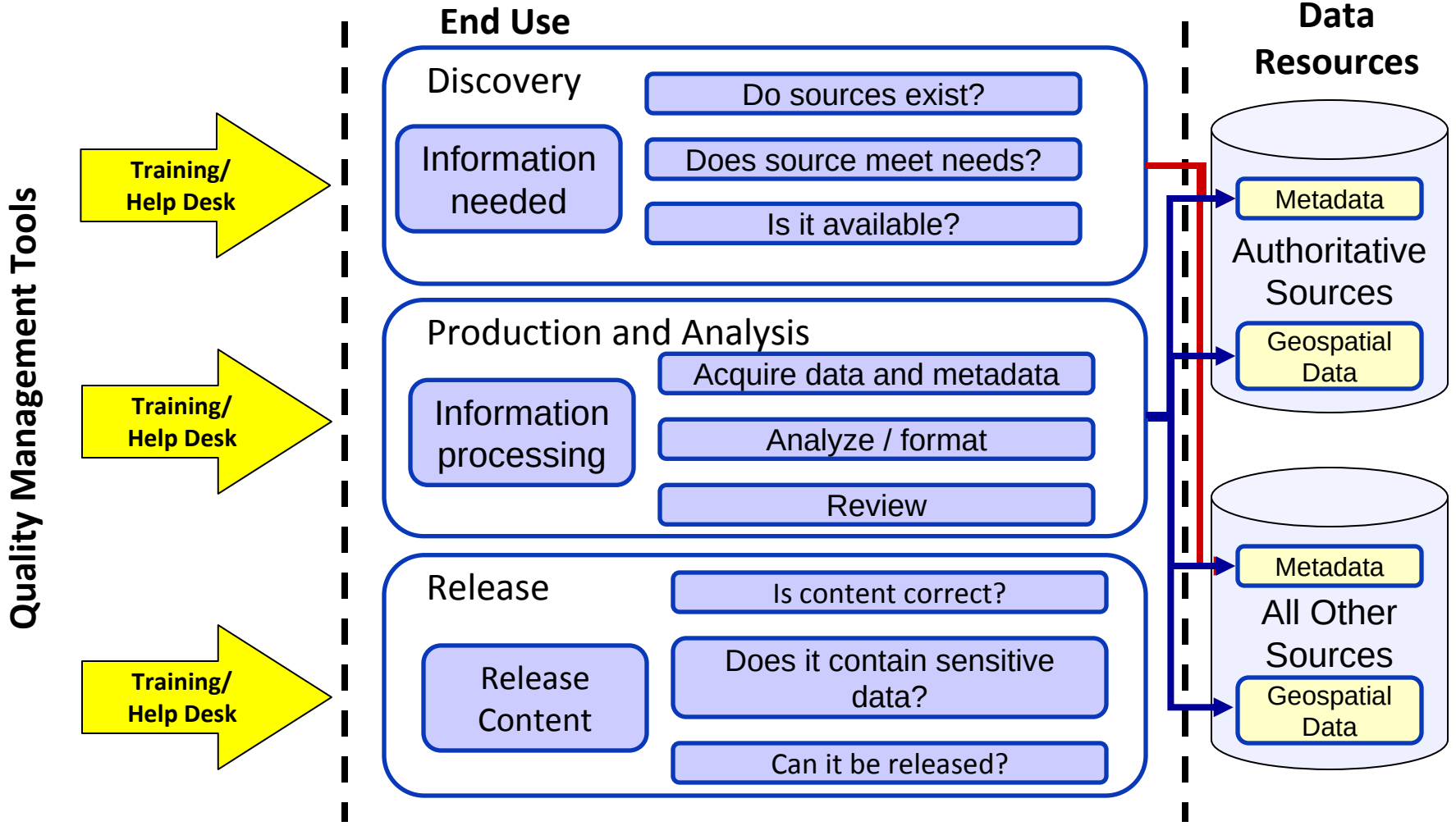
Data Creation: Contracted Resources



Data Administration:
Data Maintenance & Version Control



End Use: Quality Concerns



Take Away Points

- SDSFIE is an enterprise standard
  - Specification must respect enterprise requirements
  - Compliance is a must
- Geospatial data are an enterprise resource
  - End use requirements must be known
  - Specifications must be based on those requirements
  - Data must be compliant
- Governance requires a tiered approach to consensus
  - Spatial Data Compliance Working Group
  - Spatial Data Quality Management Working Group
  - DISDI Group