Housekeeping

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Advancing Environmental Solutions

Environmental Data Management Best Practices (EDM-1, 2022)

Data Quality Roundtable Discussion

Sponsored by: Interstate Technology and Regulatory Council (www.itrcweb.org)
Hosted by: US EPA Clean Up Information Network (www.clu-in.org)

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EDM Trainers – Data Quality Roundtable

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EDM Training Catalog

DATA MANAGEMENT

Overview Video

ROUND TABLE #1

March 19, 2024
Data Quality
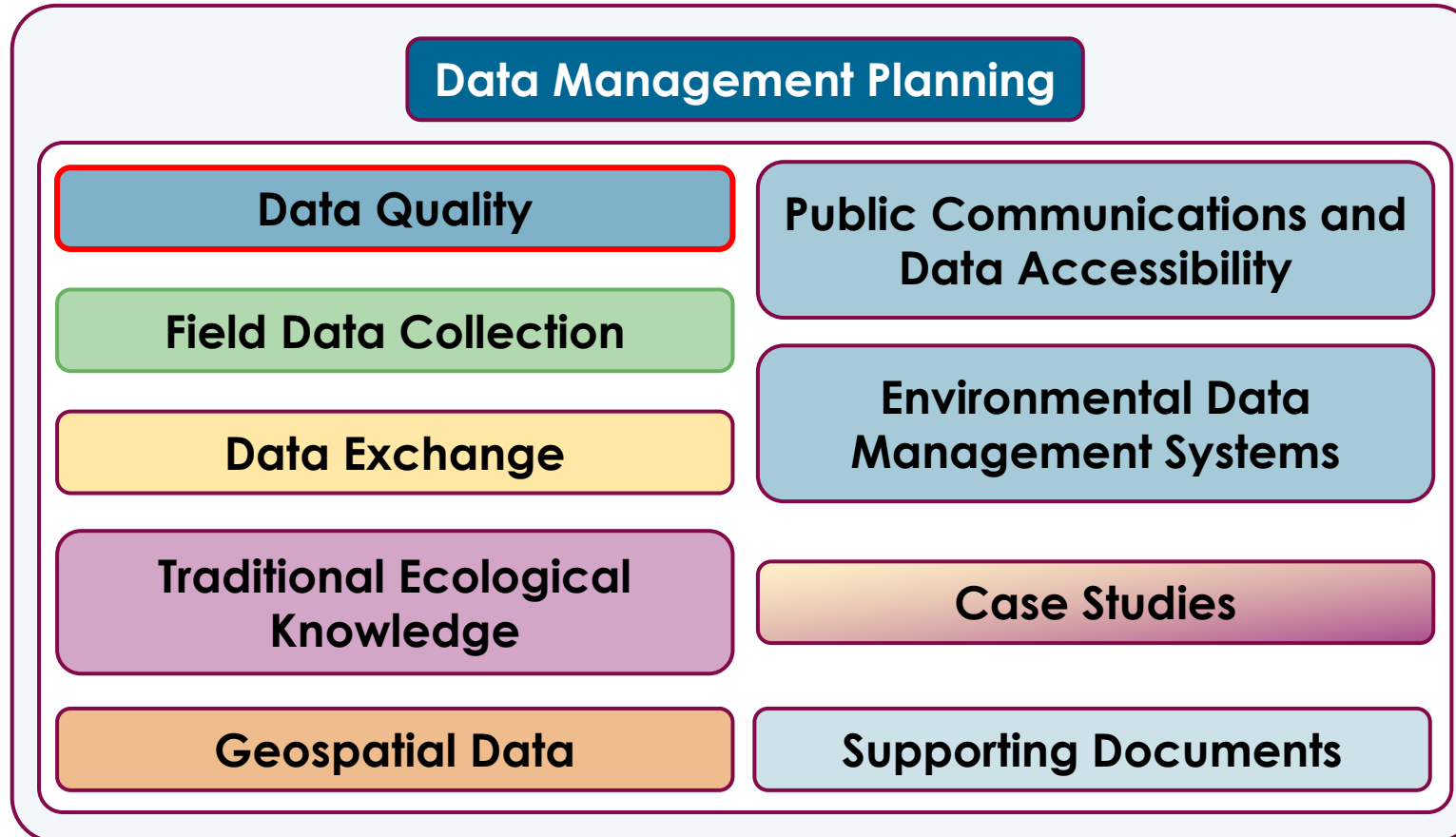
ROUND TABLE #2

April 16, 2024
Data Exchange

ROUND TABLE #3

April 25, 2024
Data Management

Discussion   Traditional Ecological Knowledge

Environmental Data Management Best Practices

Data Management Planning

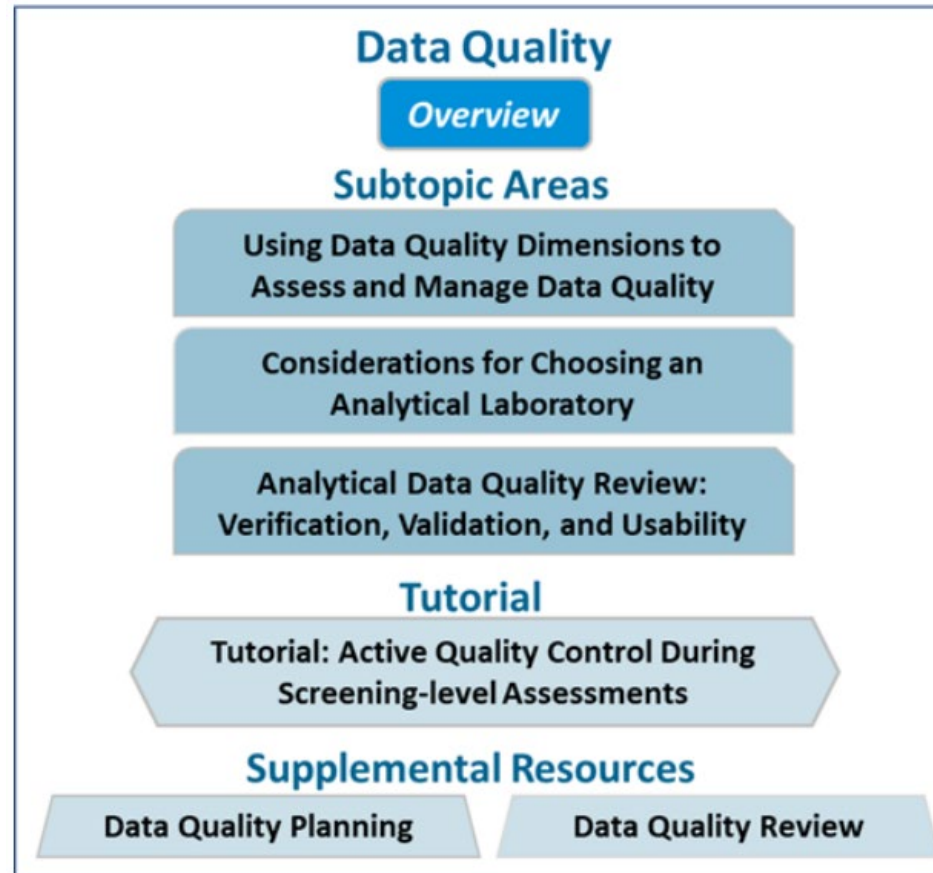|	
Data Quality	Public Communications and Data Accessibility
Field Data Collection	Environmental Data Management Systems
Data Exchange	
Traditional Ecological Knowledge	Case Studies
Geospatial Data	Supporting Documents

https://edm-1.itrcweb.org/

Questions

Please use the Q&A Pod to ask questions for the Expert Panelists.

Data Quality Guidance

Data Quality Dimensions

▶ Data integrity

▶ Unambiguity

▶ Consistency

▶ Completeness

▶ Correctness

▶ Documentation

Application of Data Quality Dimensions

▶ **Checks of each DQ dimension for:**

    ▶ Sample collection

    ▶ Laboratory analyses

    ▶ Historical data acquisition

    ▶ Spatial data acquisition

    ▶ TEK acquisition

    ▶ Synthesis of data

    ▶ Data summarization and reporting

Project Stage	Activity	A. Data Integrity	B. Unambiguity	C. Consistency
Acquire	I. Field work, including sample collection and recording of other measurements and observations	1. The location is recorded for every sample collection	1. Location identifiers are consistent with any previous use	1. Location, sample, and analysis identifiers follow the planned design
		2. The date is recorded for every sample collection	2. Spatial reference system used is	2. The same date format is used throughout
		3. Information is recorded to clearly define the sample location/type	3. Dates and times are complete	3. Capitalization and use of dashes and underscores are

Example of Data Quality Matrix Content

▶ **Activity: Data synthesis**

    ▶ **Dimension: Unambiguity**
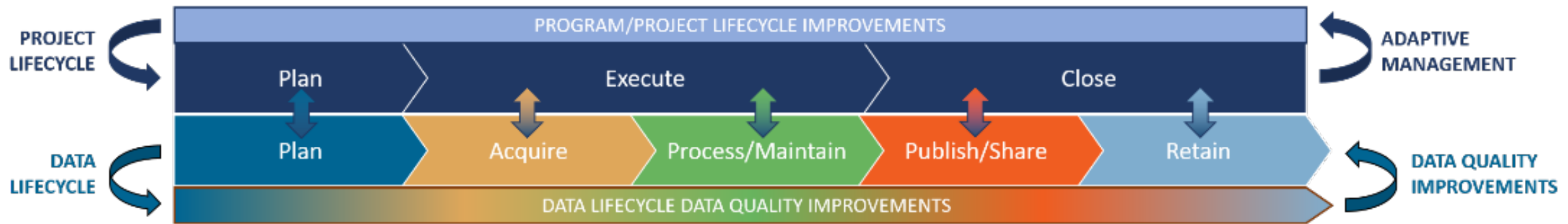
        ▶ Definitions are clear for every lookup value (e.g., analyte codes)

        ▶ Codes are not duplicated, conflicting, or overlapping

        ▶ Definitions are clear for every column name

        ▶ Geographic coordinate systems are specified

        ▶ Units are specified for all measured values

Questions

Please use the Q&A Pod to ask questions for the Expert Panelists.

What is The Data Quality Lifecycle?

Data Quality Costs and Benefits

Cost
Acquisition
Integration
Amount
Complexity
Tools / Tech

Benefits
Usability
Quality
Need
Standardization
Centralization