Housekeeping

▶ This event is being recorded; Event will be available On Demand after the event at the main training page

  https://clu-in.org/conf/itrc/EDM-1/

▶ If you have technical difficulties, please use the Q&A Pod to request technical support

▶ Need confirmation of your participation today?

  ▶ Fill out the online feedback form and check box for confirmation email and certificate

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)

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

ECOS

ERIS
ENVIRONMENTAL RESEARCH
INSTITUTE OF THE STATES

ITRC – Shaping the Future of Regulatory Acceptance

▶ Host Organization

ECOS

▶ Network - All 50 states, PR, DC

▶ Federal Partners

DOE   **DOD**   **EPA**

▶ ITRC Industry Affiliates Program

IAP

▶ Academia

▶ Community Stakeholders

▶ Disclaimer

  ▶ https://edm-1.itrcweb.org/about-itrc/#disclaimer

▶ Partially funded by the US government

  ▶ ITRC nor US government warranty material

  ▶ ITRC nor US government endorse specific products

  ▶ ITRC materials available for your use – see usage policy

itrcweb.org   facebook.com/ltrcweb   @ITRCWEB   linkedin.com/company/itrc

https://www.itrcweb.org/

EDM Trainers – Data Quality Roundtable

Cheryl Hennessy
Stantec
cheryl.Hennessy@stantec.com

Jennifer Arthur
City of Seattle
Jennifer.Arthur@seattle.gov

Shauna McKellar
ERM, Inc.
Shauna.mckellar@erm.com

Dreas Nielsen
Integral Consulting Inc.
dnielsen@integral-corp.com

Brian Pointer
NCDEQ
brian.pointer@ncdenr.gov

Meghan Eschbaugh
ERM
meghan.eschbaugh@erm.com

EDM Training Catalog

DATA MANAGEMENT

Overview Video

ROUND TABLE #1

(Archived)
Data Management Planning and Field Data Collection
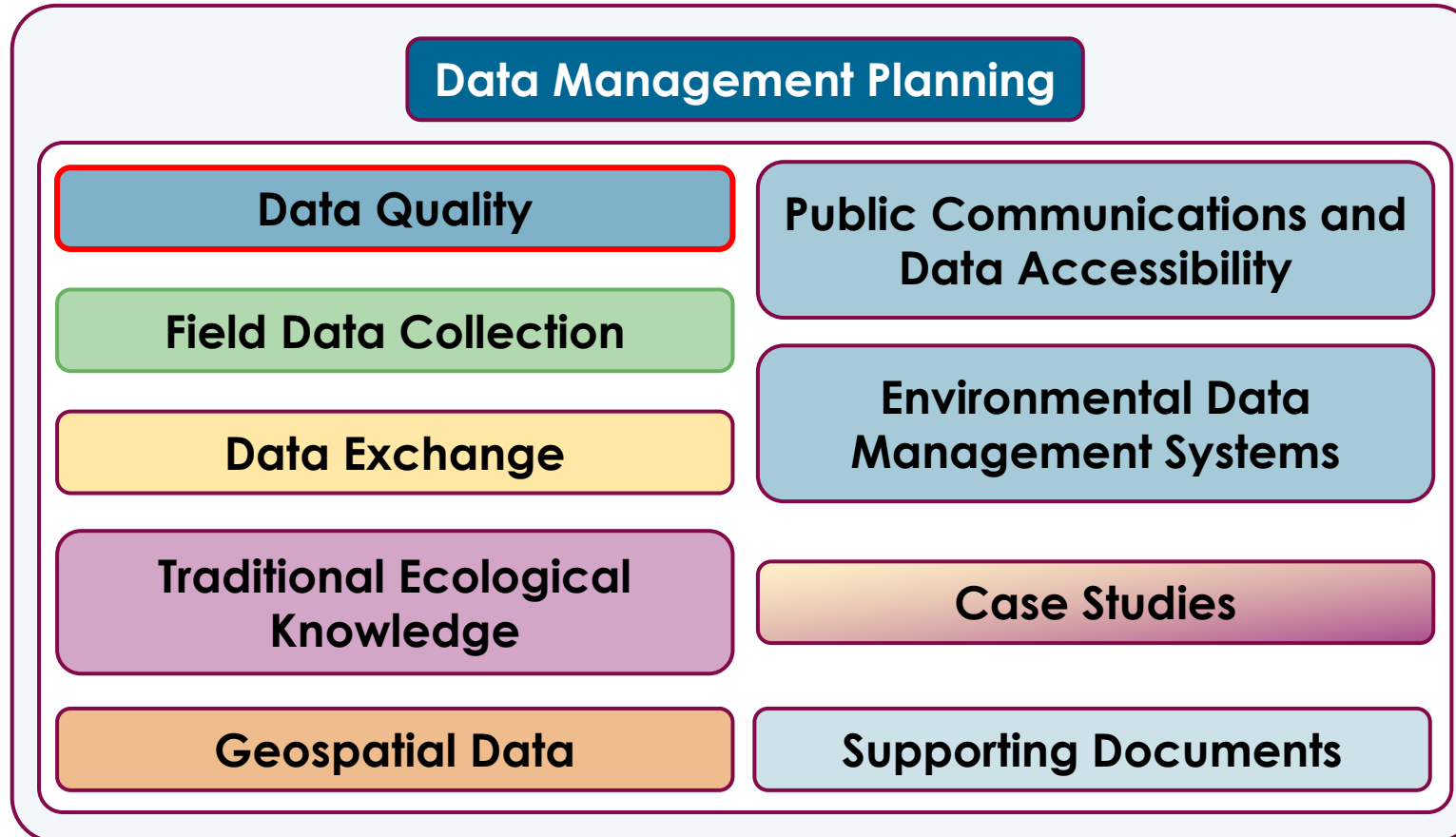
ROUND TABLE #2

(Archived)
Data Exchange

ROUND TABLE #3

May 2, 2023
Data Quality

Discussion

Traditional Ecological Knowledge

INTERSTATE TECHNOLOGY REGULATORY COUNCIL

ITRC

ECOS

ERIS
ENVIRONMENTAL RESEARCH
INSTITUTE OF THE STATES

Environmental Data Management Best Practices

Data Management Planning

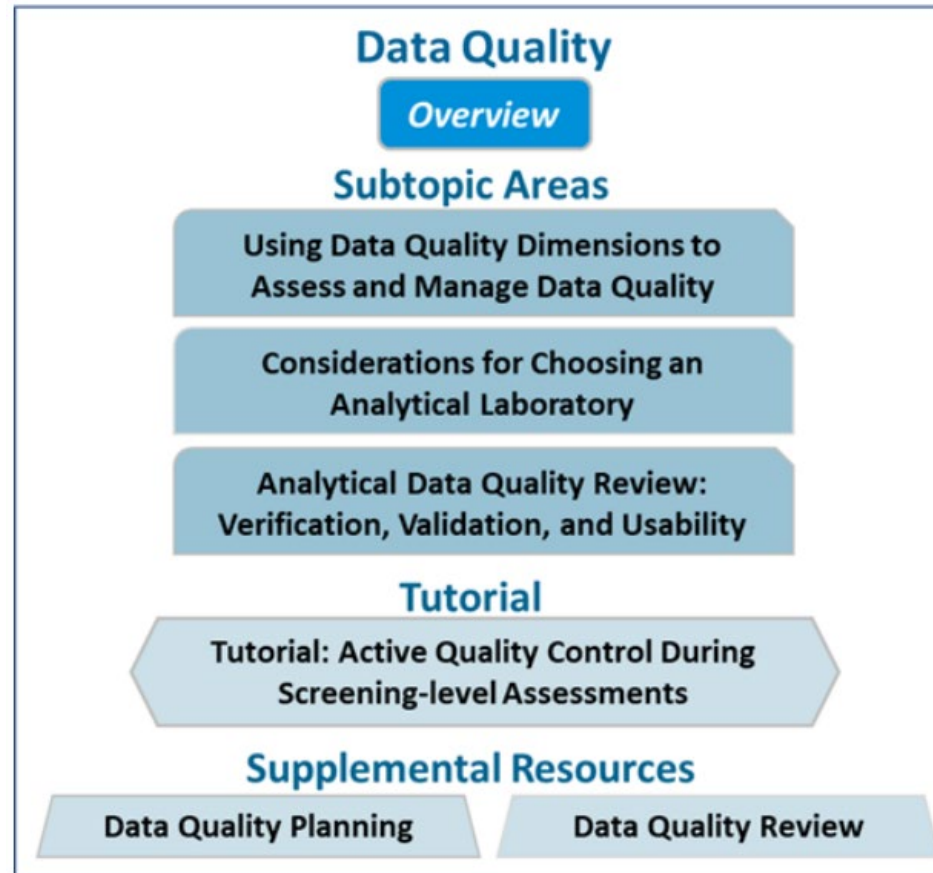|	
Data Quality	Public Communications and Data Accessibility
Field Data Collection	Environmental Data Management Systems
Data Exchange	
Traditional Ecological Knowledge	Case Studies
Geospatial Data	Supporting Documents

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?
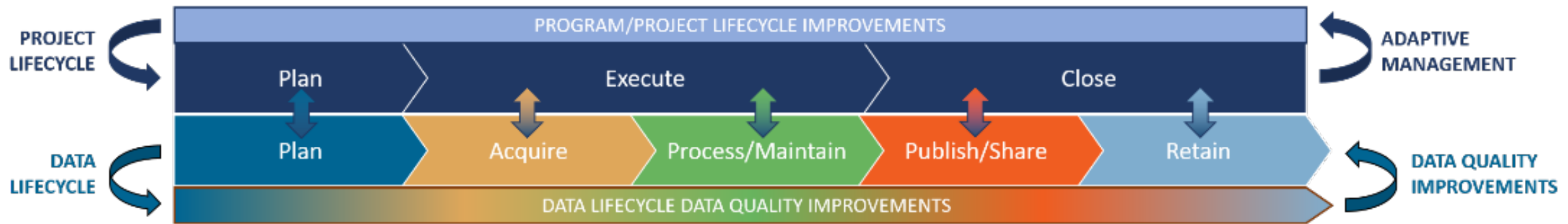
Data Quality Costs and Benefits

Cost
Acquisition
Integration
Amount
Complexity
Tools / Tech

Benefits
Usability
Quality
Need
Standardization
Centralization