

Implementing a Transportation Agency Data Self-Assessment

NCHRP 08-92

Prepare > Assess > Improve

QUESTIONS

Do we have the right data to make good decisions and meet reporting requirements?

 Agency Leaders

How can our agency make it quicker and easier to access and analyze data so that we can do our jobs more efficiently and effectively?

 Data Users

Is our data good enough? Do we need to improve its level of accuracy, precision or timeliness?

 Data Stewards

Are we managing our data to maximize its value and ensure its integrity?

 Data Managers

Prepare

ASSEMBLE TEAM

Assemble a broad-based team to guide the effort.

ESTABLISH ASSESSMENT GOALS

Set a clear direction for what is to be accomplished.

SET SCOPE AND TIMELINE

Select data programs and assessment elements to include and establish a scope and schedule for the effort.

Assess

ASSESS DATA VALUE

Assess current data availability, quality, and usability.

ASSESS DATA MANAGEMENT

Assess maturity level for current data management processes.

DETERMINE GAPS

Identify gaps between current state and desired state and identify candidate actions to close gaps.

Improve

PRIORITIZE IMPROVEMENTS

Analyze the results and prioritize actions for improvement.

DEVELOP ACTION PLAN

Develop a plan of specific actions to address the priority gaps.

IMPLEMENT PLAN

Assign responsibilities, allocate resources and track implementation.

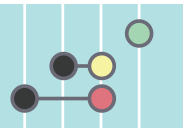
ASSESSMENT

DATA VALUE

Rating

Poor Fair Good Excellent

Availability
Quality
Usability

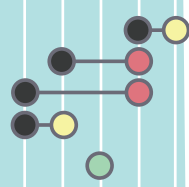


DATA MANAGEMENT

Maturity Level

1 2 3 4 5

Data Strategy and Governance
Data Architecture and Integration
Life Cycle Data Management
Data Collaboration
Data Quality Management



KEY

Current

Target



No Gap

Small Gap

Large Gap

ACTIONS

Data Consolidation and Standardization
Data Collection, Processing, and Quality Improvements
Data Management Staffing and Responsibilities
Data Policies, Procedures, and Standards
Data Mapping and Documentation
Data Presentation and Analysis Improvements
Information System Improvements

AASHTO Data Sub-Committee Core Transportation Data Principles

The AASHTO Standing Committee on Planning (SCOP) Data Sub-Committee leadership has defined a set of core principles for transportation data.

Principle 1: Valuable

Data is an asset—Data is a core business asset that has value and is managed accordingly.

Principle 2: Available

Data is open, accessible, transparent and shared—Access to data is critical to performing duties and functions, data must be open and usable for diverse applications and open to all.

Principle 3: Reliable

Data quality and extent is fit for a variety of applications—Data quality is acceptable and meets the needs for which it is intended.

Principle 4: Authorized

Data is secure and compliant with regulations—Data is trustworthy and is safeguarded from unauthorized access, whether malicious, fraudulent or erroneous

Principle 5: Clear

There is a common vocabulary and data definition—Data dictionaries are developed and metadata established to maximize consistency and transparency of data across systems.

Principle 6: Efficient

Data is not duplicated—Data is collected once and used many times for many purposes.

Principle 7: Accountable

Decisions maximize the benefit of data—Timely, relevant, high quality data are essential to maximize the utility of data for decision making.

For more information, visit: <http://planning.transportation.org/Pages/Data.aspx>