

# Evaluation and Summary of Results

This chapter provides guidance for evaluating candidate improvements and communicating information about recommended improvements to build support and secure resources for implementation.

## **Practice Summary, Improvement Evaluation, and Result Communication**

At this stage of the process, the agency will have a list of candidate improvements to close gaps between where the agency is now and where it wants to be.

The next important step is to evaluate the candidate improvements. The purpose of this evaluation is to set priorities and build an understanding of the likely implementation challenges the DOT will face.

The result of this step is a summary of the gaps to be closed and the recommended improvements for closing them. These results can be developed into communication materials that make a case for resourcing improvements.

## **Current and Desired State Summary**

Users of the guidebook will establish the current and desired state of practice (in relation to the benchmark levels) for each assessed area, section, and element of the framework. This step provides a clear picture of where gaps exist in current practice, exposing opportunities for potential improvement.

Element-level response templates are provided in the printed guidebook and can be used to complete a pen-and-paper assessment; however, use of the TAM Data Assistant can facilitate easier summary and communication of the assessment results.

A visual summary and presentation of current and desired practice benchmarking will be the most effective means of communicating assessment outcomes. “Spider web” or “radar” charts are best used for this communication (see **Figure I-8**). Given the number of individual elements, individual summary charts should be developed for each assessed area within the guidance framework.

These charts will provide a compelling visual representation of where current performance is high or low, and where there are gaps between current and desired performance. Using these charts will clearly identify priorities for advancement, and will support improvement evaluation and prioritization.

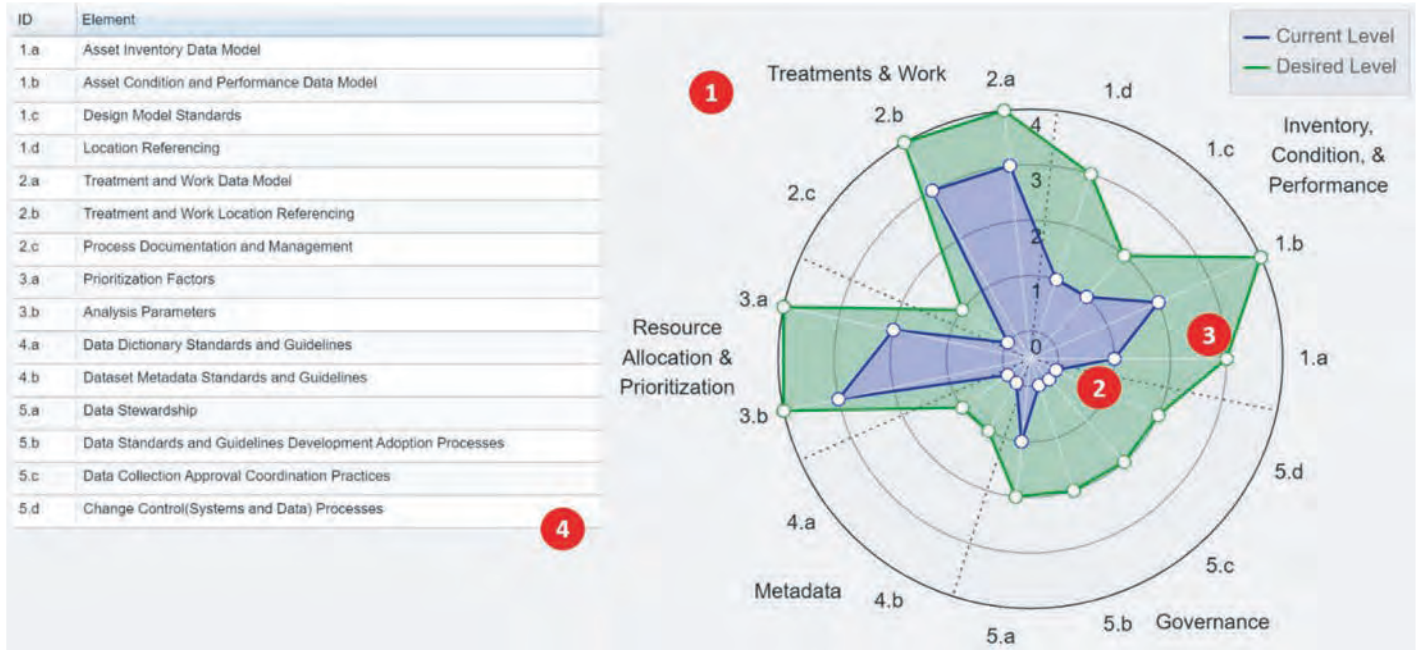


Figure I-8. TAM Data Assistant assessment summary example.



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The TAM Data Assistant simplifies the summary of assessment outcomes by automatically generating these charts from the detailed assessment data.

**Additional Recommendations**

Preparing a summary and review of assessment results can generate new insights from the assessment team and allow for broader engagement and input beyond the observations of the individuals who were involved in the initial assessment process.

The assessment summary materials proposed in this guidebook can be used to iteratively refine the assessment details and generate more meaningful assessment results and improvement priorities.

**Explanation of Recommended Summary Charting**

Figure I-8 exemplifies the recommended approach to visualizing the current and desired state captured through the assessment process. Four key elements of this visualization are:

1. **The “spider web” or “radar” chart** itself, including each assessed element within the area, organized by section, and representing each possible level of performance (from Benchmark Level 0 to Benchmark Level 4);
2. **The current performance** (highlighted in blue in Figure I-8), which is provided for each assessed element within the targeted area;
3. **The desired performance** (highlighted in green), which is provided for each assessed element within the targeted area; and
4. **The element identifier and name** for each assessment element represented in the summary chart.

## Use of Recommended Summary Charting

- **Identification of Low- and High-Performing Sections and Elements.** In Figure I-8, governance and metadata practices are easily identified as low-performing practices, whereas treatment and work data standards are relatively high-performing practices. Low-performing practices may become obstacles to ongoing advancement and may need to be prioritized for improvement, even if these capabilities are not specifically an area of focus for the agency. Referring again to Figure I-8, without advancing governance and metadata capabilities, the ability to efficiently and effectively collect, integrate, or analyze TAM data may be compromised due to lack of understanding of and compliance with data standards as business needs and practices change.
- **Gaps in Current and Desired Performance.** In Figure I-8, all assessed elements show a gap between current and desired performance; however, certain elements have larger gaps than others. Governance elements typically are two levels lower than desired, and will require significant investment and potentially face substantial institutional hurdles and organizational challenges to implement improvements. Based on this summary, a long-term governance implementation initiative could be considered. Communication to decision-makers could highlight the significant gap in current practices with respect to the desired state of practice and the value and benefits of investment in advancing governance practice.

## Detailed Analysis

Detailed assessment data can be exported from the TAM Data Assistant to an Excel spreadsheet (an export file).

The export file can be used to readily list, filter, sort, and apply calculations that may be helpful in communicating the current practice (current benchmark level), desired state of practice (target benchmark level), or practice gaps. The raw data in the export file could potentially be used to create a “radar” or “spider web” chart, but the TAM Data Assistant does this automatically for each framework area.

The assessment information can also be combined with detailed improvement evaluation outcomes (also included within the export file) to relate current and desired practice to individual improvement opportunities (as is discussed under “Improvement Evaluation”).

## TAM Data Assistant Quick Reference Guide

Detailed information on the functions and use of the TAM Data Assistant can be found in the TAM Data Assistant Quick Reference Guide provided in Part III, Appendix I.

## Improvement Evaluation

After candidate improvements have been identified, the next step is to evaluate them, recognize the effort that will be required versus the likely payoff for executing them, and anticipate any implementation challenges. This evaluation step is important for setting priorities and developing a comprehensive improvement strategy.

The TAM Data Assistant allows users to sort, filter, and review a list of improvements that have been identified during the assessment process. Through this interface, users can track evaluation results based on the criteria described in the next section of this guidebook.

Each candidate improvement should be evaluated in the context of other selected improvements. This evaluation allows the relative impact, effort, and priority of each improvement to

be established (as high, medium, or low) with respect to the other identified options. Improvement-specific challenges can also be identified for consideration during strategy development. For example:

- **Impact** is characterized by the extent to which new or existing practices will transform TAM-related business practices;
- **Effort** is characterized by the level of resources and staff time required and the extent to which those can be incorporated into the responsibilities and budgets of existing business units;
- **Priority** is established on the basis of when the improvement would be targeted for implementation, ranging from immediate action to being recognized for future, as-yet unplanned action;
- **Challenges** can be grouped into distinct categories (e.g., time, resource, expertise, coordination, change, or other).

Applications of these evaluation factors are illustrated in the “Conceptual Examples” text box.

## Conceptual Examples

### Evaluations of Proposed Improvements

#### Impact Evaluation

##### High Impact

- Transforms current business in a way that addresses major process pain points, is likely to extend to multiple business units, and adds value to multiple business processes

##### Medium Impact

- Makes existing business processes significantly more efficient and effective; however, may be within a limited area of business (e.g., a specific business function or process area)

##### Low Impact

- Contributes a minor adjustment to an existing business process but will not significantly change the business
- May already exist informally but are being formalized or clarified in the context of the program at large

#### Effort Evaluation

##### High Effort

- Requires a major commitment of resources and staff time, typically across multiple business units (e.g., a major IT application, a statewide technology deployment)

##### Medium Effort

- May be incorporated within typical budgets and resources but would require planning and coordination, typically limited to a specific business function or process area

##### Low Effort

- Can be included within routine responsibilities of a business unit or working group
- Typically can be completed within a short timeframe

#### Priority Evaluation

##### High Priority

- Targeted for immediate action

##### Medium Priority

- Intended to begin within the next several investment or planning cycles (e.g., 1–2 years)

##### Low Priority

- Recognized, but not anticipated for action within the near future
- Unlikely to be incorporated into near-term planning activities

### Conceptual Examples

#### Challenge Categorization

##### Time

- Recommended when the time available is limited for the extent of the effort

##### Resources

- Recommended when the level of resources or staff time would require executive approval

##### Expertise

- Recommended when the expertise required is not available to the DOT without specialized support

##### Coordination

- Recommended when engagement and agreement are required across many different areas of business within the DOT, particularly when many of the impacted business units do not typically work together as part of the routine business of the agency

##### Change

- Recommended when the improvement will significantly transform current business across multiple business units and processes, requiring extensive process reengineering and/or training to those impacted

## TAM Data Assistant and Improvement Evaluation

The TAM Data Assistant provides functionality for recording ratings of impact, effort, priority, and challenges for each selected candidate improvement. Additional information can be found in Part III, Appendix I.

### Additional Recommendations

An iterative approach to improvement evaluation is recommended. To the extent practical, this process should also involve external stakeholders and external planning processes. For example, the goals and objectives stated in an agency’s strategic plans should be incorporated into the prioritization of improvement actions.

The availability, workload, and resources of affected business units should also be considered, as well as the engagement and enthusiasm for change found in potential project sponsors and business leads. Without stakeholder engagement, it is unlikely that a data or information system improvement will be successfully and sustainably implemented within routine business.

### Improvement Evaluation Tools

Figure I-9 demonstrates the TAM Data Assistant functionality supporting improvement evaluation. The interface organizes five key aspects of the evaluation. The five key aspects of this interface are:

1. **Sort and display functionality**, to organize improvements identified during the self-assessment process;
2. **Filter functionality**, to apply criteria to filter the improvements based on area, challenge, priority, effort, impact, and other factors;
3. **Individual improvement details**, to highlight details for each selected improvement;
4. **Evaluation criteria**, to establish the improvement’s impact versus effort, priority, and associated challenges; and
5. **Assessment information**, to review the current and desired state of the associated element and provide a link to quickly return to, and adjust, the associated assessment information.



TAM Data Assistant

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The screenshot displays the TAM Data Assistant interface for evaluating improvements. On the left, a 'Sort and Display' panel (labeled 1) allows users to set 'Improvements Per Page' to 10 and sort by various criteria. Below it is a 'Filter' panel (labeled 2) with dropdowns for Areas, Challenges, Priority, Effort, Impact, Scored, and Hidden Improvements. The main area, titled 'Evaluate Selected Improvements', shows two improvement cards. The top card, 'Specify Inventory Data Elements' (labeled 3), includes a 3x3 impact/effort matrix with a black dot in the Medium-High cell, challenge checkboxes (Time, Resources, Expertise, Coordination, Change, Other), and a Priority dropdown (labeled 4). The bottom card, 'Routinely Evaluate Asset Data Model', has a similar matrix with a black dot in the High-High cell and the same challenge options. Both cards show a 'Current Level' of 2 (green box) and a 'Desired Level' of 3 (blue box) (labeled 5). Buttons for 'Reassess' and 'Hide This Improvement' are present on each card. A 'Show All Improvements' button is at the top right. The bottom left shows 'Showing 4 Improvements' and '4 Total Selected Improvements'.

Figure I-9. Using the TAM Data Assistant to evaluate selected improvements.

## Detailed Analysis

Detailed improvement data can be exported from the TAM Data Assistant to an Excel spreadsheet. One of the worksheets within the export will include each selected improvement and other potential improvements. This spreadsheet file should be used for any external analysis. If the TAM Data Assistant is not used, a similar spreadsheet could be developed based on the information presented in this guidebook.

The export file will contain the following information:

- **Element ID:** A unique identification number assigned to the associated element in the detailed technical framework. This unique identifier allows the improvement information to be joined to the assessment details;
- **Improvement Description:** The detailed descriptive language for the assessed element;
- **Priority:** The low-, medium-, or high-priority value assigned to the improvement;
- **Impact:** The low-, medium-, or high-impact value assigned to the improvement;
- **Effort:** The low-, medium-, or high-impact value assigned to the improvement;
- **Time Challenge:** An indicator of whether a time challenge was identified for the improvement (0 if no challenge was identified, or 1 if a challenge was identified);
- **Resource Challenge:** An indicator of whether a resource challenge was identified for the improvement (0 if no challenge was identified, 1 if a challenge was identified);
- **Expertise Challenge:** An indicator of whether an expertise challenge was identified for the improvement (0 if no challenge was identified, 1 if a challenge was identified);
- **Coordination Challenge:** An indicator of whether a coordination challenge was identified for the improvement (0 if no challenge was identified, 1 if a challenge was identified);
- **Change Challenge:** An indicator of whether a change challenge was identified for the improvement (0 if no challenge was identified, 1 if a challenge was identified);

- **Other Challenge:** An indicator of whether another type of challenge was identified for the improvement (0 if no challenge was identified, 1 if a challenge was identified);
- **Status:** An indicator of whether the improvement was or was not selected for improvement; and
- **Evaluation Notes:** Improvement notes captured during the self-assessment activity.

The export file can be used to readily list, filter, sort, and apply calculations that may be helpful in communicating the priorities for improvement. By joining these results with the detailed assessment information, the user can further refine the priorities for improvement. The “Conceptual Examples” text box in this section illustrates a variety of ways in which filters and sorting can be used in the export file.

## Conceptual Examples

### Detailed Result Evaluation

#### High-Impact, Low-Effort Improvements

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The agency can filter for high-impact, low-effort improvements. Consider improvement opportunities that deliver significant value without substantial effort. Where practical for immediate investment, communicate these “low-hanging fruit” to decision-makers as easy wins.

#### Combine Assessment and Improvement Information

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Assessment and improvement information can be combined using the Element ID field. Use this approach to improve communication of improvement priorities by also relating current or desired performance.

#### Improvement of Low-Performing Elements

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The combined assessment and improvement information can be used to identify improvements for low-performing elements. By sorting on the “Assessment Current Level” field and ordering the results from lowest to highest value, improvements associated with the lowest-performing elements will be moved to the top of the list.

A low-performing element may not always stand on its own as a priority of the organization, but it may be relevant given the interrelated nature of performance within the framework. Lagging performance in one aspect of performance can have an impact on the ability to be successful in other areas.

#### Improvement of Elements with Large Performance Gaps

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The combined assessment and improvement information can be used to identify improvements for elements with large gaps between current and desired performance. Calculate the difference between the “Assessment Desired Level” and “Assessment Current Level,” and sort on the resulting value from largest to smallest value. Improvements associated with the largest performance gaps will now be found at the top of the file.

Consider how initial improvements in these areas should be prioritized, given that multiple improvements over an extended period will likely need to be implemented.

## Executive Communication

Securing support to implement improvements requires clear, concise communication about the current state of DOT practices, the desired state of those practices, key performance gaps, and which improvements have priority.

The assessment facilitator, project sponsor, and other key team members should be involved in development of executive communication materials.

## Digital Output and Uses

Radar charts, individual improvement evaluation data entry, and summary improvement “impact versus benefit” charts can be selected and used directly in briefing materials and other executive communications materials that are designed to speak to the specific needs and interests of the targeted decision-makers.

Detailed export output should be used as the basis for any nonstandard communication materials. This approach will ensure that the materials prepared are easily maintained or updated should the assessment results be revisited at a future date.

Recommendations for effective executive communication include the following:

1. **Present the assessment focus and context**, emphasizing the motivation, desired value in selecting the focus, and the cross-functional nature of the assessment team;
2. **Communicate the current and desired state** quickly, demonstrating where performance is low, where it is high, and where improvement is most necessary, and providing practical examples of the impacts that low performance is having on current TAM business;
3. **Share a clear set of implementation priorities** that address gaps in current practices, emphasizing that these are the agreed-upon priorities of the cross-functional team; and
4. **Acknowledge challenges** that will be faced, outlining organizational practices and real-world case studies that will support successful implementation.



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## The TAM Data Assistant and Executive Communication

Summary materials generated from the TAM Data Assistant or the downloadable export file can be used by evaluation teams to prepare executive communication materials. Additional information on the tool’s Results Page, Excel Report, All Assessments Page, and Current Assessment Page can be found in the TAM Data Assistant Quick Reference Guide in Part III, Appendix I.