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U.S. **Postal Service's DRIVE 51 –** Leverage **OD 11010** Technology and Data to **Drive Business** Value

# **Audit Report**

**Report Number** MI-AR-16-003

December 23, 2015

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# OFFICE OF INSPECTOR GENERAL UNITED STATES POSTAL SERVICE

# Highlights

We conducted our own performance analysis and determined the labor savings were about \$2 million (29.8 percent) less than the projected \$6.7 million during the period June 20 through September 30, 2015.

U.S. Postal Service's DRIVE 51 – Leverage Technology and Data to Drive Business Value Report Number MI-AR-16-003

### Background

In fiscal year (FY) 2011, the U.S. Postal Service established 36 Delivering Results, Innovation, Value, and Efficiency (DRIVE) initiatives to improve its business strategy. DRIVE was established to reduce a reported \$20 billion gap between revenue and expenses through strategic initiatives with measurable outcomes.

DRIVE Initiative 51 – Leverage Technology and Data to Drive Business Value consists of five projects to streamline the development of emerging technologies. The Postal Service's goal is to use technology to meet its revenue, expense, operational efficiency, service, and customer experience goals by FY 2019.

Our objective was to determine whether DRIVE Initiative 51 used established DRIVE project management processes.

# What the OIG Found

DRIVE Initiative 51 managers did not follow established DRIVE project management processes. Specifically, the charter did not identify metrics to measure whether DRIVE Initiative 51 is helping the Postal Service meet its performance and financial goals. We determined that 22 of the 33 charter metrics measured the deployment or implementation of equipment, systems, and processes rather than the performance and savings resulting from those new systems. As an example, DRIVE Initiative 51 managers included a Small Package Sorting System deployment metric to measure progress towards their goal of modernizing package automation, but did not include a metric to monitor performance. We conducted our own performance analysis and determined the labor savings were about \$2 million (29.8 percent) less than the projected \$6.7 million during the period June 20 through September 30, 2015.

DRIVE Initiative 51 managers also did not follow processes for updating the Technology Management Office System and managing milestones. For example, 74 changes to project milestones were made in the system without authorization. We also identified two roadmaps with gaps of more than 2 months between milestone dates. DRIVE guidance requires milestones at 4- to-6-week intervals.

These issues occurred because the Strategic Management Office did not ensure DRIVE governance and documentation procedures were followed. As a result, there is an increased risk that DRIVE Initiative 51 will not help the Postal Service meet its business performance goals and the Executive Leadership Team will not be able to accurately evaluate the initiative.

We issued a report in 2013 that outlined 34 best practices to institutionalize data governance and a three-phase implementation strategy for the Postal Service. Management agreed with our previous recommendation to implement an enterprise-wide data governance program and indicated



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that they would address it in a DRIVE initiative. However, management did not implement these practices or the strategy for DRIVE Initiative 51, making it more difficult for the Postal Service to improve management of critical data. That recommendation will remain open until an enterprise-wide data governance program is established.

## What The OIG Recommended

We recommended management ensure all DRIVE Initiative 51 metrics measure business performance, include all metrics in the Technology Management Office System, and establish an independent review process to validate the accuracy of system inputs. We also recommended DRIVE managers set milestones at 4- to-6-week intervals, document all necessary approvals when changing initiative and project goals, and establish goals in DRIVE Initiative 51 that will create an enterprise-wide data governance program for the Postal Service.

# **Transmittal Letter**



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# **Findings**

DRIVE Initiative 51 has five roadmaps designed to streamline the development of emerging technologies.

We determined that 22 of the 33 charter metrics measured the deployment or implementation of equipment, systems, and processes rather than the performance and savings resulting from those new systems.

### Introduction

This report presents the results of our self-initiated audit of the U.S. Postal Service's Delivering Results, Innovation, Value, and Efficiency (DRIVE) Initiative 51 – Leverage Technology and Data to Drive Business Value (Project Number 15TG033MI000). Our objective was to determine whether DRIVE Initiative 51 used established DRIVE project management processes. See Appendix A for additional information about this audit.

The Postal Service uses DRIVE to manage strategic programs designed to close a projected \$20 billion gap between revenue and expenses over 5 years. About \$16 billion of this amount depends on legislative action to reduce the Postal Service's obligation to prefund employee retirement benefits and healthcare. In fiscal year (FY) 2011, the Postal Service defined 36 key DRIVE initiatives, each addressing a strategic program area.

Each initiative consists of roadmaps and projects with specific annual and cumulative goals for cutting costs and growing revenue. An initiative's charter outlines the goals of these projects and identifies the roadmaps the Postal Service should follow to reach these goals. DRIVE initiatives should have goals to improve business performance, with specific measurable outcomes that are realistic and include deadlines. The Strategic Management Office (SMO) tracks the Postal Service's performance and progress toward achieving these goals. The SMO also provides project management guidance and standardized processes<sup>1</sup> for managing initiatives and reporting to the Executive Leadership Team (ELT).

The Technology Management Office System (TMOS) is a dashboard reporting and monitoring tool that allows executive-level management to monitor the health, quality, and timeliness of DRIVE projects on an ongoing basis. The SMO or roadmap owner manually enters project information into TMOS, which uses a color-coded traffic light report to show progress to the ELT.

DRIVE Initiative 51 has five roadmaps designed to streamline the development of emerging technologies. These project roadmaps are intended to contribute to the overall initiative goals of increasing revenue, reducing expenses, enabling operational efficiencies, delivering world-class service, and continuously improving the customer experience by FY 2019.

### Summary

DRIVE Initiative 51 managers did not always follow established DRIVE project management processes when planning, monitoring, and controlling project milestones and goals. We determined that 22 of the 33 charter metrics measured the deployment or implementation of equipment, systems, and processes rather than the performance and savings resulting from those new systems. As an example, DRIVE Initiative 51 included a Small Package Sorting System (SPSS) deployment metric to measure progress toward the goal of modernizing package automation, but did not include a metric to measure SPSS performance. We conducted our own performance analysis and determined the labor savings were about \$2 million (29.8 percent) less than the projected \$6.7 million during the period June 20 through September 30, 2015.

DRIVE Initiative 51 managers also did not follow processes for updating the TMOS and managing milestones. Specifically, three charter metrics were either not included or deleted in the system and the results of four additional charter metrics were either not monitored or were incorrect in the system. We also identified two roadmaps with gaps of more than 2 months between milestone dates and 13 changes affecting 74 milestones that were made to project goals without proper authorization. These issues occurred because the SMO did not ensure that DRIVE managers followed governance and documentation procedures. As a result, there is an increased risk that DRIVE Initiative 51 will not help the Postal Service meet its business performance goals and the ELT will not be able to accurately evaluate the initiative.

DRIVE Governance Guide, September 30, 2014, establishes the requirements and procedures for the DRIVE process.

Further, the U.S. Postal Service Office of Inspector General (OIG) issued an audit report<sup>2</sup> in 2013 outlining 34 best practices for institutionalizing data governance and a three-phase implementation strategy for the Postal Service. Instead of following these practices and the strategy, DRIVE Initiative 51 measures the deployment and implementation of equipment and systems. Implementing best practices and using the implementation strategy would help the Postal Service improve its management of critical data.

# **Establishing Metrics to Monitor Performance**

DRIVE Initiative 51 managers did not follow established DRIVE project management processes. Specifically, the charter did not identify adequate performance metrics to monitor whether DRIVE Initiative 51 is helping the Postal Service meet its performance and financial goals.<sup>3</sup> We determined that 22 of 33 charter metrics measured the deployment or implementation of equipment, systems, and processes. Although management included 12 performance metrics in DRIVE Initiative 51, those metrics were unrelated to the equipment, systems, and processes that were implemented. Additionally, management did not include other performance metrics to monitor the performance and savings resulting from those systems.

The SMO performs an initial assessment (rigor testing) during the planning phase to ensure that projects contribute to overall program goals. This testing assesses how the initiative's objectives match the Postal Service's strategic goals; however, during the rigor testing process in January 2015, the SMO did not enforce the policy<sup>4</sup> that requires the initiative lead and the roadmap owner to establish measureable metrics that will help achieve charter objectives and contribute to Postal Service priorities.

As an example, DRIVE Initiative 51 included an SPSS deployment metric<sup>5</sup> to measure progress toward the goal of modernizing package automation, but did not include a metric to measure SPSS performance. We reviewed package volume processed by SPSS machines at four judgmentally selected sites<sup>6</sup> and determined the actual package volume was 29.8 percent less than projected (see Table 1 for volume details).

Site	Projected Total Package Volume	Actual Total Package Volume	Difference	Percentage Difference
Los Angeles ISC	7,740,000	7,300,179	439,821	5.7%
North Houston P&DC	3,010,000	3,943,984	(933,984)	(31.0)%
Queens P&DC	14,620,000	6,931,932	7,688,068	52.6%
Royal Palm P&DC	6,880,000	4,450,418	2,429,582	35.3%
Total	32,250,000	22,626,513	9,623,487	29.8%

### **Table 1: SPSS Volume Analysis**

Source: World-Class Package Program – Small Package Sorting System Test and Evaluation Decision Analysis Report, March 17, 2014, Web End-of-Run System (WebEOR), and the Enterprise Data Warehouse (EDW).

<sup>2</sup> U.S. Postal Service's Data Governance Audit Report, DP-AR-13-004(R).

<sup>3</sup> DRIVE Governance Guide, Section 7.4, DRIVE Charter Rigor-Test Checklist.

<sup>4</sup> DRIVE Governance Guide, Section 3.3, DRIVE Roadmap Rigor-Test Checklist.

<sup>5 51.5.2.1 -</sup> Percent of SPSS Planned Units Deployed.

<sup>6</sup> We reviewed SPSS machine volume at the Los Angeles International Service Center, North Houston Processing and Distribution Center (P&DC), Queens P&DC, and Royal Palm P&DC.

We then conducted our own labor analysis and determined that reduced volume caused the labor savings to be about \$2 million (29.8 percent) less than the projected \$6.7 million during the period June 20 through September 30, 2015. The volume goal and labor savings calculation came from the SPSS investment proposal.<sup>7</sup> By not including metrics to measure performance of the SPSS machines, it is difficult for DRIVE managers to determine whether the Postal Service is realizing the benefits of modernized package automation. Because DRIVE Initiative 51 managers did not include metrics to measure the performance of new equipment, systems, or processes, there is an increased risk the initiative will not help the Postal Service meet its business performance goals.

**Delivering Results, Innovation, Value, and Efficiency Initiative 51 Planning Process** 

DRIVE Initiative 51 roadmaps were not fully developed with specific milestones and reportable measurements as required.<sup>8</sup> Specifically, three metrics from two roadmaps were not included in TMOS:

- 51.1.3 Percent of Delivery Offices Managed Through Delivery Management System
- 51.2.3 External Cybersecurity Strategy Risk Assessment
- 51.2.8.4 Approval of FY 2016 Objectives for Data Governance and Records Management

They were not included because the SMO did not ensure that DRIVE managers followed established governance and documentation procedures. The SMO is responsible for uploading milestones and metrics into TMOS after roadmaps pass the rigor test. Tracking metrics in TMOS is important because it allows the ELT to identify whether DRIVE Initiative 51 managers are meeting their goals.

In addition, the audit team found four charter metrics that were either not monitored or were input into TMOS incorrectly (see Table 2 for the reported errors we found in TMOS).

### **Table: 2 TMOS Reporting Discrepancies**

Metric	Reported Metric Value	Actual Metric Value
51.2.2-Percent Completion for Cybersecurity Risk Management Dashboard	25% (Q2)	91%
51.2.2-Percent Completion for Cybersecurity Risk Management Dashboard	95% (Q3)	78%
51.3.3-On Time Delivery for Commercial Mail and Full Service	86% (Q3)	87%
51.3.5-Percent of Commercial Mail on Seamless Acceptance	Incomplete (Q3)	17%
51.5.2.1-Percentage of SPSS Units Deployed	6% (Q3)	16%

Source: TMOS and supporting documentation provided by the initiative lead and roadmap owners.

Because DRIVE Initiative 51

managers did not include

metrics to measure the

performance of new equipment,

systems, or processes, there is

an increased risk the initiative

will not help the Postal Service

meet its business

performance goals.

<sup>7</sup> World-Class Package Program – Small Package Sorting System Test and Evaluation Decision Analysis Report, March 17, 2014.

<sup>8</sup> DRIVE Governance Guide, Section 3.4, Roadmap Development Process – Detailed View.

SMO personnel stated that roadmap owners are responsible for accurately reporting results; however, the SMO does not have an independent process to validate the results reported in TMOS. When the SMO does not track goals and the information in TMOS is not accurate, there is an increased risk that executive leadership cannot determine whether projects will contribute to the overall success of the initiative. During the audit, DRIVE Initiative 51 managers updated TMOS with the correct totals for the four metrics.

We also identified three cases in two roadmaps where the initiative lead and roadmap owner did not establish roadmap milestones every 4 to 6 weeks in accordance with DRIVE governance.<sup>9</sup> Specifically:

- Roadmap 51.3, 100 Percent Product Visibility, had one 8-week gap and one 9-week gap between milestones; and
- Roadmap 51.5, Robust, Reliable Information Systems and New Automated Processing Systems, had one gap of 10 weeks between milestones.

This occurred because the SMO did not follow DRIVE governance planning requirements during rigor testing. Setting milestones at regular intervals enables the initiative lead and roadmap owners to detect and respond to problems in a timely manner. When milestones are too far apart, it is difficult to effectively monitor and detect risks to the schedule and to demonstrate the initiative's progress.

# Delivering Results, Innovation, Value, and Efficiency Initiative 51 Monitoring and Controlling

We identified 13<sup>10</sup> of 24 changes made to project goals in FY 2015 that were not properly approved. Specifically, roadmap owners did not obtain an email approval from the initiative lead for eight change requests and the initiative lead did not obtain email approval from the ELT for three requests. The roadmap owners and the initiative lead are required to submit change request forms when they need to add, change, or remove goals or milestones. DRIVE governance includes a process for documenting such requests to promote accountability and ensure visibility to all stakeholders. This process specifies approval levels based on the nature of the request and includes email approvals for all change requests<sup>11</sup> (see Table 3 for a list of change requests that were not properly approved).

<sup>9</sup> DRIVE Governance Guide, Section 3.3, DRIVE Roadmap Rigor-Test Checklist.

<sup>10</sup> One change request form included changes that affected three different roadmaps therefore we counted it as 3 changes for our analysis.

<sup>11</sup> DRIVE Governance Guide, Section 7.1, Existing Charter/Roadmap Rebaseline Checklist.



Source: OIG analysis.

Additionally, we determined that 13 of the 22 change request forms were missing approval dates and none included stakeholder concurrence.

The SMO is responsible for ensuring change request forms are complete before making changes in TMOS; however, the SMO did not ensure established DRIVE governance and documentation procedures were followed. The SMO liaison stated that, in

some instances, the approver was included in the email exchange while, in other instances, approval documentation could not be located. When approvals are not properly documented and maintained, there is no guarantee that all key planning considerations have been approved and taken into account before the change occurs and that senior management has the correct information to manage projects.

# Measuring Progress for Data Governance in Delivering Results, Innovation, Value, and Efficiency Initiative 51

In 2013, the OIG issued an audit report comparing data governance in the Postal Service to best practices in the industry. Data governance is the management process ensuring important data assets are formally managed and fully utilized throughout the organization. The report outlined 34 best practices for institutionalizing a data governance program and a three-phase implementation strategy. The phased approach allows management to establish general, broad policies before taking more specific, technical actions.

DRIVE Initiative 51 consists of five roadmaps aimed at leveraging technology, developing technical systems, and providing actionable data to drive business value. However, the Postal Service did not model DRIVE 51 after the 34 data governance best practices and the three-phase implementation strategy. We reviewed the five roadmaps to evaluate their progress towards a data governance program:

- Roadmap 51.1, Information Driven Enterprise Analytic Solutions, included one metric<sup>12</sup> to create a data governance standard operating procedure that will enable better decision making. However, this roadmap could have included additional metrics to measure the effectiveness of data governance across the organization. A successful data governance program can be organized into five areas: corporate-wide data strategy, data quality and consistency, data location and warehousing, risk and security, and data use. This roadmap focuses on governance procedures and deploying analytical tools rather than the five areas.
- Roadmaps 51.2, Secure Technology Services, and 51.3, 100 Percent Product Visibility, included metrics that will provide the Postal Service with actionable data and are good examples of using data to meet the Postal Service's business performance goals. Roadmap 51.2 aims to increase the cybersecurity capability by using the latest technology and risk management to mitigate risk and improve security. Roadmap 51.3 aims to improve visibility and tracking of commercial mail data using automation to reduce costs and improve service measurement. Although mitigating risk, improving security and using data are all areas of a data governance program, these roadmaps do not measure progress towards an enterprise-wide program.
- Roadmaps 51.4, Post Office Infrastructure Enhancement, and 51.5, Robust, Reliable Information Systems and New Automated Processing Systems, included metrics primarily measuring the deployment and implementation of equipment and systems including SPSS, Mobile Delivery Device, and Retail Systems Software. However, none of the metrics in these roadmaps measure progress towards an enterprise-wide program.

By implementing the 34 best practices and using the three-phase implementation strategy, the Postal Service could better manage critical data to help managers and employees achieve strategic and operational goals. See Appendix B for a more detailed explanation of the 34 best practices and Appendix C for a more detailed explanation of this implementation approach.

In 2013, the OIG issued an audit report comparing data governance in the Postal Service to best practices in the industry.

<sup>12 51.1.1</sup> Percent Completion and Implementation of Standard Operating Procedure

# Recommendations

We recommend the Postal Service establish DRIVE 51 milestones and goals to measure performance and progress, include all charter and roadmap metrics in the TMOS and establish independent review processes, follow DRIVE policy by requiring initiative leads and roadmap owners to implement milestones, and require initiative leads and roadmap owners to complete all appropriate change request forms and obtain necessary approvals before changing project goals.

U.S. Postal Service's DRIVE 51 – Leverage Technology and Data to Drive Business Value Report Number MI-AR-16-003 We recommend the acting chief information officer and executive vice president direct Delivering Results, Innovation, Value, and Efficiency Initiative 51 managers to:

1. Establish milestones and goals in Delivering Results, Innovation, Value, and Efficiency Initiative 51 to measure business performance and progress towards an enterprise-wide data governance program.

We recommend the director, Strategic Planning:

- 2. Include all charter and roadmap metrics in the Technology Management Office System and establish independent review processes to validate the accuracy of data input.
- 3. Follow Delivering Results, Innovation, Value, and Efficiency governance policy by requiring initiative leads and roadmap owners to implement milestones at 4- to-6-week intervals.
- 4. Require initiative leads and roadmap owners to complete all appropriate change request forms and obtain all necessary approvals before changing project goals.

# **Management's Comments**

Management agreed with all four recommendations. See Appendix D for management's comments in their entirety.

In response to recommendation 1, management stated the ELT approved objectives in the FY 2016 DRIVE Initiative portfolio for enterprise-wide data governance as part of the annual DRIVE refresh process.

In response to recommendation 2, management stated the SMO will update DRIVE governance guidelines to include a quality check of TMOS data input by May 2016.

In response to recommendation 3, management stated no action is required because the SMO currently identifies and recommends changes where gaps occur and provides feedback to initiative leads and roadmap owners.

In response to recommendation 4, management stated the SMO followed the appropriate processes to approve change requests.

Management disagreed with the other impact labor savings of \$2 million because our scope did not include the peak mailing season that occurs at the end of each year. Regarding the findings, management stated they included data governance in DRIVE, as a multi-year effort in FYs 2015 and 2016 and provided examples of planned activities. In addition, they stated that the data governance finding was outside the audit scope and that additional best practices were not necessary. Management also stated that DRIVE managers did use established DRIVE governance processes and established appropriate metrics and targets to monitor progress as approved by the ELT. Lastly, management stated that the SMO provided documentation to the OIG supporting change request approvals as well as roadmap monitoring in TMOS.

## **Evaluation of Management's Comments**

The OIG considers management's comments responsive to recommendations 2, 3, and 4; but unresponsive to recommendation 1. Management's corrective actions for recommendation 2 should resolve the issue identified in the report. Management's actions for recommendations 1, 3, and 4 will not resolve the issues identified in the report.

For recommendation 1, management stated that DRIVE includes the ELT-approved objectives for enterprise-wide data governance in the FY 2016 DRIVE portfolio as part of the annual DRIVE refresh process and that no further action is required. However, while management referred to a multi-year effort, we did not see this during the audit and management did not provide any plan other than what was in DRIVE Initiative 51. As stated in the report, this recommendation is related to a previous recommendation to establish a data governance program. The OIG will keep recommendation 1 open until management completes corrective actions to establish milestones and goals for implementing a data governance program.

For recommendation 2, management stated the SMO will update DRIVE governance guidelines to include a quality check of TMOS data input by May 2016. The OIG will keep recommendation 2 open until corrective actions are completed.

For recommendation 3, management stated the SMO currently identifies and recommends changes where gaps occur and will continue to provide feedback to initiative leads and roadmap owners. Management's response is inadequate because the SMO did not explain how the initiative leads will be accountable for establishing milestones at 4-6 week intervals. In addition, DRIVE governance does not include discretionary relevance by the SMO concerning accountability. The OIG will close recommendation 3 with the issuance of this report and review milestone gaps in future audit work.

For recommendation 4, management stated they followed the correct process; however we did not consider including the approver in an email exchange to be evidence of the Postal Service's formal approval process. DRIVE governance does not include discretion in approving change requests. The OIG will close recommendation 4 with the issuance of this report and review change request approvals in future audit work.

Regarding SPSS volumes, we based our estimate on a comparison of actual daily volume versus estimated daily volume included in the SPSS investment proposal. SPSS is a new system and our scope included all available data after the start-up period. Although our scope did not include the year-end peak, management did not provide a volume forecast for the peak season to indicate that volume goals will be achieved. Regarding the request for additional data, we included the volume data in the report and there was no additional information to provide.

Management stated that our findings on data governance were outside the scope of the DRIVE 51 audit. In response to a prior report on data governance, Information Technology Compliance managers indicated that data governance would be established through DRIVE 51. Therefore, we evaluated progress toward a data governance program using DRIVE 51. We determined that, while DRIVE 51 included some aspects of data governance, the Postal Service did not model DRIVE 51 after the 34 data governance best practices or implement an enterprise-wide data governance program.

Management stated that DRIVE managers used established DRIVE governance and metrics to monitor progress and that the deployment and implementation metrics are key indicators they use to gauge the success of eventual financial and service improvements. However, by only measuring the deployment of equipment and systems, the realization of anticipated financial and service improvements will not be known. As stated in the report, not including metrics to measure the performance of new equipment, systems, or processes increases the risk that the initiative will not help the Postal Service meet its performance goals.

Management stated that they provided documented evidence of the required formal change request approvals to the OIG; however, there was no explicit approval of the changes we reviewed. When approvals are not properly documented, there is no guarantee that all key planning considerations have been approved and taken into account before the change occurs and that senior management has the correct information.

Management also stated that they provided evidence that a charter metric was uploaded into TMOS; however, they were unable to provide documented evidence during the audit indicating that the SMO uploaded and tracked the metric in TMOS. As stated in the audit report, tracking metrics in TMOS is important because it allows the ELT to identify whether DRIVE Initiative 51 managers are meeting their goals.

The OIG requires concurrence on recommendations 1 and 2 before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. These recommendations should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendations can be closed. The OIG will close recommendations 3 and 4 with the issuance of this report.

# **Appendices**

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# Appendix A: Additional Information

## Background

The Postal Service established 36 DRIVE initiatives in FY 2011 to improve its business strategy. DRIVE aims to reduce the Postal Service's reported \$20 billion gap between revenue and expenses by FY 2016 through data-driven program and project management. However, almost \$16 billion of that gap depends on legislative action by Congress. Annually, the Postal Service reviews and adjusts the portfolio of initiatives to achieve its strategic objectives. The program management process is designed to measure progress through clearly defined goals and objectives. It applies leading program management principles to increase the chance of success while providing executive visibility and early risk indicators, and involving different functional areas. There are 17 DRIVE initiatives in FY 2015 aligned with four core strategies<sup>13</sup> and seven operational objectives.<sup>14</sup>

The DRIVE organizational structure refers to three levels of management as initiatives, roadmaps, and projects. Roadmaps are the collection of program-level activities critical to the success of an initiative. They consist of projects with clearly identified impacts and indicators, milestones, interdependencies, and risks (see Figure 1).

# Figure 1: DRIVE Pyramid



Source: TMOS DRIVE User Guide, page 8.

Each year ELT sponsors present their recommended initiatives for inclusion in the DRIVE portfolio.

The Postal Service established DRIVE in FY 2011 to improve its business strategy by identifying initiatives that:

- Contain significant and measurable outcomes that:
  - Have greater than \$50 million in revenue contribution or cost reduction.
  - Improve key stakeholder alignment.

<sup>13</sup> Invest in the future, speed the pace of innovation, engage and empower employees, and support product growth through network efficiency.

<sup>14</sup> Grow revenue from innovation, core products, and markets; optimize the value of infrastructure; build competitive workforce of the future; improve customer experience; leverage technology to drive business value; strengthen financial and risk management capabilities; and assure executive transparency.

- Greatly enhance key capabilities.
- Grow revenue from new products, markets, and customers.
- Aggressively address cost in the next few years to get ahead of the revenue plan.
- Are critical to either the short- or long-term success of the Postal Service.
- Require extensive cross-enterprise coordination and ELT visibility.
- Merit using top staff and resources.

Additionally, the Postal Service originally established DRIVE with five key project management phases:

Initiation - define a new project, complete a project charter with measurable objectives, and authorize project launch.

**Planning** - define the course of action to achieve project objectives; and create and receive approval for the project scope, schedule, budget, resources, quality standards, and risk management plan.

**Executing** - perform the defined work, including managing the team and approving any changes to the plan.

**Monitoring and Controlling** - track, review, and report on the progress of the project. Analyze changes to plan schedules, costs, and scope; and manage necessary course corrections.

**Closing** - receive sign-off that project outcomes have met the objectives, close all activities, and archive documents and lessons learned.

However, the director, Strategic Planning, stated these requirements and processes are not in the current DRIVE governance process for managing corporate initiatives. We plan to evaluate these changes to DRIVE processes and governance in a separate audit report.

The SMO manages projects through the TMOS by tracking performance and progress on milestones, risk, impacts, and roadmap completion. The TMOS is a color-coded traffic light dashboard view for executive and cross-functional insight into strategies, programs, and projects. The red, yellow, and green traffic light colors show changes from planned financial and non-financial metrics. The SMO has standardized processes for managing program initiatives and reporting to the ELT. These include criteria to approve and manage initiatives, such as formatting charters uniformly, reporting metrics quarterly, and communicating with project managers.

# **Objective, Scope, and Methodology**

Our objective was to determine whether DRIVE Initiative 51 used established DRIVE project management processes. The scope of this audit was the FY 2015 DRIVE Initiative 51 charter and five roadmaps and their associated goals. To accomplish our objective we:

- Reviewed procedures and criteria related to establishing DRIVE initiatives.
- Reviewed and evaluated the five DRIVE Initiative 51 roadmaps and their respective goals in TMOS.
- Discussed DRIVE Initiative 51 project management with Technology Management personnel, including establishing metrics and milestones that align with overall portfolio goals.
- Reviewed, evaluated, and discussed the testing of roadmap milestones and established metrics with the SMO to determine whether the DRIVE planning processes were followed and whether established goals within the DRIVE portfolio aligned.
- Reviewed and evaluated requests submitted to the SMO for changes to established milestones and metrics as well as the subsequent approval process. We discussed the approval process with the SMO personnel and roadmap owners.
- Reviewed project management information, guidelines, training material, and support provided by the SMO.
- Reviewed available reports in TMOS to obtain information on DRIVE Initiative 51 project management and project lifecycles.
- Discussed the validation of reported results with roadmap owners, initiative leads, and SMO personnel.
- Reviewed and compared supporting documentation of project metrics with the metrics reported in TMOS.
- Reviewed package processing reports in WebEOR and EDW to determine package volumes processed on SPSS machines.
- Compared the 34 data governance best practices identified in a previous OIG report with the information in the DRIVE Initiative 51 charter and roadmaps.

We conducted this performance audit from June through December 2015, in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We discussed our observations and conclusions with management on November 5, 2015, and included their comments where appropriate.

We assessed the reliability of computer-generated data from the TMOS by comparing key information against separately prepared documents provided by management. We found project information is manually entered in TMOS by the SMO or roadmap owners. Although we identified discrepancies, we determined that the data were sufficiently reliable for the purposes of this report.

# **Prior Audit Coverage**

Report Title	Report Number	Final Report Date	Monetary Impact
U.S. Postal Service's Delivering Results, Innovation, Value, and Efficiency Initiative 25 – Improve Customer Experience	MI-AR-16-001	11/16/2015	\$6.6 million
<b>Report Results:</b> This report found that DRIVE planning DRIVE Initiative 25 goals. Consumer business operations instead of identifying goa revenue. Additionally, we identified \$6.6 million contract. We also found inconsistencies with of to project goals without proper authorization. If requirements in DRIVE training, but will keep	E Initiative 25 managers of and Industry Affairs (C& Is to improve business per in the Postal Service coul lata reported in the TMO Management agreed they the customer service con	did not follow DRIVE project n IA) management based proje erformance, enhance the brar d put to better use by not rene S for 12 of 21 goals and ident v would review TMOS data an tract.	nanagement processes when ct goals on C&IA's daily nd, and increase loyalty and ewing a customer survey tified eight changes made nd include change request
U.S. Postal Service's Delivering Results, Innovation, Value, and Efficiency Initiative 30 - Achieve 100 Percent Customer and Revenue Visibility	MI-AR-15-004	6/12/2015	None
<b>Report Results:</b> This report found that DRIVE process when planning, monitoring, and contr project dates, incomplete change request form Management partially agreed with the recomm by the appropriate stakeholders. They further initiative targets.	E Initiative 30 managers of olling overall project mile ns, and goals not based of nendations but stated that stated that ELT members	did not always follow establish stones and goals. We found I on any activities that would ex t all change requests were co and initiative leaders are res	ned DRIVE governance arge gaps between cceed past performance. ommunicated to and approved sponsible for setting specific
U.S. Postal Service's Delivering Results, Innovation, Value, and Efficiency Initiative 43, Building a World-Class Package Platform	MI-AR-15-003	5/4/2015	None
<b>Report Results:</b> This report found that DRIVE in domestic package volume and a \$13.6 billio in the underlying projects or establish a way to goal. In addition, changes to and removal of p recommended management ensure the DRIV to include initiative goals in the underlying pro- and complete all appropriate forms and obtain Management partially agreed with the recomm clarify the relationship between goals and char	E Initiative 43 managers e on domestic revenue net o accurately measure pro roject goals occurred wit E governance policy is fo jects, ensure all projects all necessary approvals nendations; however they rters.	established cumulative goals contribution by FY 2016, but o gress toward meeting the rev hout proper authorization and lowed by requiring initiative I have at least one goal measu when making changes to init y stated they will revise DRIVI	for a 35 percent increase did not include these goals renue net contribution separation of duties. We eads and roadmap owners ured in the initiative charter, iative and project goals. E governance guidelines to

Report litie	Report Number	Final Report Date	Monetary Impact
U.S. Postal Service's Delivering Results, Innovation, Value, and Efficiency Initiative 42, Market New and Existing Services	DP-AR-14-005	9/10/2014	None
<b>Report Results:</b> This report found that DRI when planning and evaluating overall project \$5.2 billion without a system in place to acc goal of DRIVE Initiative 42 was \$8 billion less management include goals that can be accur recommended requiring initiative leads to for performance. Management partially agreed are responsible for setting specific initiative	IVE Initiative 42 managers of ct metrics and revenue goal surately measure achievement ss than the combined goals urately measured and reflect ollow established criteria to s with the recommendations; targets.	lid not follow DRIVE project n s. Management established a ent. Another goal was not agg of the five underlying project at the \$24.6 billion total of the set bold and aggressive road however they stated that init	nanagement processes a FY 2014 revenue goal of gressive and the cumulative s. We recommended projects. We also map goals beyond past tiative leaders and the ELT
U.S. Postal Service's Delivering Results, Innovation, Value, and Efficiency Initiative 6 Improve Employee Availability	), DP-AR-14-001	3/7/2014	None
practices and there was no independent into Strategic Planning, establish a process to e	ernal audit process to overs nsure DRIVE project managers	ee DRIVE management. We gement roles such as the initi	recommended the director ative lead and roadmap
owner are independent. We also recommer at the project management level. Managem were not made because the same person w used established DRIVE project developme initiatives that existed prior to DRIVE.	nded management evaluate lent agreed with our recomm vas both initiative lead and r ent management processes	nendations, but disagreed that oadmap owner. Managemen and asserted that DRIVE gov	and controls for each projects at changes to projects t also stated that they vernance does not prohibit
owner are independent. We also recommen at the project management level. Managem were not made because the same person w used established DRIVE project developme initiatives that existed prior to DRIVE. Delivering Results, Innovation, Value, and Efficiency Management	DP-AR-13-008	nendations, but disagreed that oadmap owner. Managemen and asserted that DRIVE gov 6/19/2013	and controls for each projects at changes to projects t also stated that they vernance does not prohibit None
owner are independent. We also recomment at the project management level. Managem were not made because the same person we used established DRIVE project development initiatives that existed prior to DRIVE. Delivering Results, Innovation, Value, and Efficiency Management Report Results: This report found that the management practices; however, it does not practice that requires regular audits and cont the overall program management process h additional best practice within the DRIVE pro- and develop and implement a Postal Service recommendations but thinks DRIVE controls bi-weekly deep-dive meetings.	DP-AR-13-008 Postal Service's DRIVE pro t ensure that projects will be htrols for each project at the las not been developed. We ogram of regular audits and e-wide program manageme s projects and provides revie	6/19/2013 gram compares favorably to the successful. DRIVE does not program manager level. Furth recommended management controls for each project at the nt policy. Management agree ews or "audits" of strategic pro-	None None
owner are independent. We also recommen at the project management level. Managem were not made because the same person w used established DRIVE project development initiatives that existed prior to DRIVE. Delivering Results, Innovation, Value, and Efficiency Management Report Results: This report found that the management practices; however, it does not practice that requires regular audits and con the overall program management process h additional best practice within the DRIVE pro- and develop and implement a Postal Service recommendations but thinks DRIVE controls bi-weekly deep-dive meetings. U.S. Postal Service Data Governance	DP-AR-13-004(R)	6/19/2013 gram compares favorably to the successful. DRIVE does not program manager level. Furth recommended management controls for each project at the nt policy. Management agree ews or "audits" of strategic pro- 4/23/2013	None None None None None None None None

# Appendix B: Implementing Data Governance Best Practices

The best practices summarized below apply to management of structured and unstructured data.<sup>15</sup> While systems and processing tools may differ by data type, data management policies govern all types of data. A successful data governance program can be organized into five areas: corporate-wide data strategy, data quality and consistency, data location and warehousing, risk and security, and data use. Additional information regarding these best practices can be found in our prior report on data governance.

#### I. Corporate-Wide Data Strategy Best Practices

#### Initiation of Data Governance

- 1. Appoint a central committee that includes key leaders from the organization to help the effort gain traction throughout all business units.
- 2. Senior leadership should set a "tone at the top" and across the organization and encourage participation at every level.
- 3. Hold group and one-on-one meetings with business units to explain and promote the process and benefits (cost savings, productivity improvements).
- 4. Analyze existing data policies within individual business units to replicate on an enterprise-wide level.
- 5. Carry out a complete inventory of existing data to accurately assign data management responsibilities, develop a security and storage strategy, and analyze future needs.

#### **Roles and Responsibilities**

- 6. Assign data steward responsibilities in each business unit to develop and oversee data governance policies. Data stewards should be familiar with IT capabilities and the data needs of fellow employees; they develop and drive implementation at the business unit level.
- 7. Assign program administrators to coordinate between the data governance committee and data stewards. The administrators would evaluate metrics for data quality to evaluate program success.

#### Data Governance Policy Development

- 8. Have the data governance committee create the data governance policy after consulting with executives and subject matter experts throughout the organization.
- 9. Rate each business unit against a series of data standards, such as data quality, data integration, or reporting. Set goals for improving data standards in each business unit. Include roadmaps and timelines for achieving goals.

10. Hold individuals accountable by including data governance in their performance evaluations.

<sup>15</sup> Users identify structured data such as dates, dollar amounts, and categories with formats and field codes. Unstructured data occurs when users do not identify a pre-defined format or field code or do not organize the data in a pre-defined manner. Unstructured data is typically text-heavy, but may also contain undefined data such as numbers, and facts. For example, emails would be considered unstructured data.

11. Conduct training on data governance for all employees who handle data within the organization. Equipping personnel with proper data classification, storage, and retrieval skills will reduce the workload of IT departments and improve the effectiveness of data governance policies.

12. Define and use metrics to measure the effectiveness of data governance across the organization.

#### II. Data Quality and Consistency Best Practices

#### Priority Data Identification

1. Identify a master set of data assets at the beginning of the process and use them as the starting point for all data cleansing and definition efforts.

### Data Quality Assessment

- 2. Develop scorecards that can diagnose data quality issues, make corrections, and allow for retesting. IT personnel should design the scorecards so that a user is not able to upload a report to storage if it does not meet established quality standards.
- 3. Direct data stewards to develop scorecards in concert with personnel within the business units who have detailed knowledge of the information the scorecards employ and customize scorecards based on each business unit's needs.
- 4. Ensure scorecards are user-friendly and that they allow users to diagnose data quality issues, thereby reducing the burden on IT personnel.
- 5. Establish milestones for data stewards to report on and assess scorecards to ensure data quality issues are consistently reported. Data stewards should meet weekly to coordinate on data quality initiatives within business units and meet monthly with the data governance committee to discuss enterprise-wide governance initiatives and strategies.

#### Standardization of Data Definitions

- 6. Developing a business glossary of data asset definitions that personnel can use when creating reports.
- 7. Publish the business glossary to inform employees about new protocols in creating, storing, and sharing data.

#### III. Data Location and Warehousing Best Practices

### Lifecycle Management

1. Develop clear guidelines for retaining and disposing of data (lifecycle management) to manage storage capacity and enhance the organization's ability to comply with government and legal policies that require data be stored for specified periods.

#### Data Warehouse Architecture

- 2. Centralize high-priority master data in a single autonomous warehouse. This approach improves confidence in business analytics and reporting.
- 3. Reserve space in the centralized enterprise warehouse for employees to store business-unit specific information, such as a department's summary tables, where IT can properly monitor and manage the information.

4. Design warehouses to automatically pull updated data from users and servers to support real-time business analytics.

#### Data Warehouse Management Roles

- 5. Dedicate a team of IT professionals to manage data warehouses and coordinate between IT and the data governance committee. The team can help the committee better understand the technical ramifications of governance policies and ensure employees' needs are met.
- 6. Appoint IT employees to monitor data queries and enforce established search protocols. Organizations should block users from requesting more data than they need and burdening the overall data retrieval system.

### Data Classification

7. Develop an automated data classification system to sort data into distinct tiers based on priority. Data should be tagged according to its classification. This allows IT to apply storage, lifecycle management, and quality control policies specific to the data type.

### **IV. Risk and Security Best Practices**

- 1. Ensure data governance policies line up with the organization's overall risk management policies so security assessment and monitoring standards are consistent throughout the organization.
- 2. Set clear guidelines to minimize the risk of unauthorized access to data and security breaches.

#### V. Data Use Best Practices

- 1. Survey personnel to understand how data is used and find out where current tools and policies fall short.
- 2. Develop an IT catalogue with data governance procedures, data quality policies, and storage/retrieval issues. This saves time for the data user and reduces requests for IT support.
- 3. Develop user-friendly metadata<sup>16</sup> views to group related information to simplify data searches.
- 4. Design business intelligence dashboards to help users view and analyze data. Dashboards present data in charts and tables without the risk of data corruption.
- 5. Designate an IT representative to every project team to assist with IT issues and enforce data governance issues on specific projects.

<sup>16</sup> Metadata is structured information that describes, explains, locates, or otherwise makes it easier to retrieve, use, or manage an information resource.

# Appendix C: Suggested Best Practice Implementation Timeline

Best-in-class organizations create detailed roadmaps for implementing best practices as part of the data governance initiative. We developed a three-phase implementation roadmap during a prior audit that was based on the experiences and recommendations of management organizations. Additional information regarding this implementation strategy can be found in our prior report on data governance.

#### <u>Phase I:</u>

- 1. Assess existing data management practices and policies.
- 2. Develop an organizational structure to support the governance initiative.
- 3. Appoint data stewards in each business unit.<sup>17</sup>
- 4. Secure buy-in from business units.

#### Phase II:

- 5. Develop data performance measures.
- 6. Inventory organizational data.
- 7. Develop standardized data definitions.
- 8. Initiate data quality assessments, beginning with top-priority data assets.

#### <u>Phase III:</u>

- 9. Develop and integrate risk management policies.
- 10. Develop a data classification system.
- 11. Develop best-in-class warehousing architecture and management policies.
- 12. Enhance employee tools and support.

Best-in-class organizations create detailed roadmaps for implementing best practices as part of the data governance initiative. Based on the experiences and recommendations of management at organizations we interviewed during the prior audit, we developed an implementation roadmap, divided into three phases. Each phase contains four key processes that should be executed in sequence. All best practices in this document have been organized under these processes, as illustrated in Figure 2.

<sup>17</sup> A data steward is a person responsible for the management of data elements (also known as critical data elements). Data stewards have a specialist role that incorporates processes, policies, guidelines and responsibilities for administering organizations' entire data in compliance with policy and regulatory obligations.

## Figure 2: Best Practices by Process Element Category

#### Phase I: First 6 Months 2 3 4 1 Develop Assess existing data organizational Appoint data Secure buy-in from management stewards within each structure to support business units practices & policies the governance business unit initiative

Process Step	Best Practice	Component Area
Step 1	Analyze existing data governance policies in individual business units.	Corporate-Wide Data Strategy
	Identify and involve key organizational stakeholders in the data governance implementation process via a central data governance committee.	Corporate-Wide Data Strategy
Step 2	Secure executive-level sponsorship to drive adoption of a data governance program across the organization.	Corporate-Wide Data Strategy
	Select program administrators with a focus on overseeing a data stewardship program.	Corporate-Wide Data Strategy
Step 3	Select data stewards for business units and the IT organization to develop and oversee data governance policies.	Corporate-Wide Data Strategy
Step 4	Demonstrate the business case for a formal data governance program to secure buy-in from the organization's leaders.	Corporate-Wide Data Strategy
	Drive data definition and policy creation via the data governance committee with participation of business unit leaders.	Corporate-Wide Data Strategy
	Conduct regular educational sessions focused on data governance for all employees who handle data within the organization.	Corporate-Wide Data Strategy

Source: OIG analysis.



Process Step	Best Practice	Component Area
Step 1	Define and use metrics to measure data governance initiative performance across the organization.	Corporate-Wide Data Strategy
	Tie performance evaluation to progress in implementing data governance policy.	Corporate-Wide Data Strategy
	Assess data standards in each business unit and set goals according to a defined timeline.	Corporate-Wide Data Strategy
Step 2	Carry out a complete inventory of existing data stored in the organization's warehouses.	Corporate-Wide Data Strategy
Step 3	Assign data stewards the duty of developing a business glossary.	Data Quality and Consistency
	Develop data glossary early in data governance program implementation.	Data Quality and Consistency
	Establish a master set of data assets at the onset of data governance initiatives.	Data Quality and Consistency
	Identify data quality issues through data quality scorecards.	Data Quality and Consistency
Step 4	Assign data stewards the responsibility for developing scorecards.	Data Quality and Consistency
	Design user-friendly scorecards that allow users to diagnose data quality issues.	Data Quality and Consistency
	Customize scorecards based on business units' data assets and needs.	Data Quality and Consistency
	Institute a clear schedule for data stewards to evaluate scorecards.	Data Quality and Consistency

Source: OIG analysis.

#### Phase III: 12-24 Months



Process Step	Best Practice	Component Area
Step 1	Merge established risk management policies with data management guidelines in the data governance program.	Risk And Security
	Set clear guidelines for allowing data access and regularly reviewing data access rights.	Risk And Security
Step 2	Develop a classification system to sort data into distinct tiers based on priority.	Data Location and Warehousing
	Develop clear guidelines for data lifecycle management.	Data Location and Warehousing
	Centralize high-priority master data in a single warehouse.	Data Location and Warehousing
	Reserve space in the centralized warehouse for employees to store business-unit specific information.	Data Location and Warehousing
Step 3	Design warehouses to automatically incorporate incoming data to ensure the data is relevant and up-to-date.	Data Location and Warehousing
	Dedicate a team of IT professionals to manage data warehouses and act as a liaison between IT and the governance committee.	Data Location and Warehousing
	Appoint IT employees to monitor data queries and enforce the search protocols.	Data Location and Warehousing
	Conduct regular surveys of end-users' needs to enhance data use.	Data Use
Step 4	Develop technology resources to help users navigate towards appropriate parties for data retrieval and IT issues.	Data Use
	Develop user-friendly metadata views to enhance warehouse data queries.	Data Use
	Design dashboard tools to help users view and analyze data.	Data Use
	Designate an IT representative for every project team to assist with IT issues and concerns.	Data Use

Source: OIG analysis.

# Appendix D: Managment's Comments













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