2023 MONTANA DEPARTMENT OF TRANSPORTATION RESEARCH PEER EXCHANGE

SUMMARY REPORT

Prepared for:
Montana Department of
Transportation
2701 Prospect Avenue
Helena, MT 59620-1001

Prepared by:
DJ&A, P.C.
2000 Maple Street
Missoula, MT 59808

November 6, 2023

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. FHWA-MT-23-007	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Montana Department of Transportation Research Peer Exchange Summary Report (September 12-13, 2023)		5. Report Date November 2023	
		6. Performing Organization Code	
7. Author(s) Peter Walker-Keleher and Shari Eslinger		8. Performing Organization Report No.	
9. Performing Organization Name and Address DJ&A, P.C 2000 Maple Street Missoula, MT 59808		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. 315299	
12. Sponsoring Agency Name and Address Research Programs Montana Department of Transportation 2701 Prospect Avenue Helena, MT 59620-1001		13. Type of Report and Period Covered Final Report September 2023	
		14. Sponsoring Agency Code	
15. Supplementary Notes: Conducted in cooperation with the U.S. Department of Transportation, Federal Highway Administration. DOI: https://doi.org/10.21949/1529558			
16. Abstract The Montana Department of Transportation (MDT) hosted a research peer exchange in Helena, Montana, on September 12-13, 2023. The objectives for this peer exchange were to identify actionable improvements to implement or change in the beginning (idea of contract) and the end of (research conclusion to implementation) of the research business process. The peer exchange featured peer presentations and facilitated discussions focusing on the topics of Ideas to Research Project and Project Implementation. MDT plans to implement the commitments made during the peer exchange to improve their research programs.			
17. Key Words Research management, state departments of transportation, research peer exchange, ideation, implementation, process improvement, program management		18. Distribution Statement No restriction.	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages: 32	22. Price

Disclaimer Statement

This document is disseminated under the sponsorship of the Montana Department of Transportation (MDT) and the United States Department of Transportation (UDOT) in the interest of information exchange. The State of Montana and the United States assume no liability for the use or misuse of its contents.

The contents of this document reflect the views of the authors, who are solely responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the views or official policies of MDT or the UDOT.

The State of Montana and the United States do not endorse products of manufacturers.

This document does not constitute a standard, specification, policy, or regulation.

Alternative Format Statement

MDT attempts to provide accommodations for any known disability that may interfere with a person participating in any service, program, or activity of the Department. Alternative accessible formats of this information will be provided upon request. For further information, call (406) 444.7693, TTY (800) 335.7592, or Montana Relay at 711.

Acknowledgements

MDT would like to express their gratitude to the peer exchange team members and attendees for sharing their commitment, participation, and collective ideas in support of this event. Connections and relationships were created that will help each state participant make improvements to current processes that will support transportation research.

Contents

2023 MDT Research Peer Exchange Summary Report

1.   Introduction

To enhance and improve research management processes, the Montana Department of Transportation (MDT) provided a multi-state and multi-disciplinary exchange of vision, ideas, and best practices by hosting an in-person research peer exchange in Helena, Montana, September 12-13, 2023.

This report summarizes the proceedings of the research peer exchange. MDT hosted the event, with facilitation support from DJ&A, to focus on two primary areas for research process improvement: 1) Idea to Research; and 2) Research Implementation (See Appendix A – 2023 Peer Exchange Agenda).

Representatives from four other state Departments of Transportation (DOTs), the Federal Highway Administration (FHWA), MDT Research Review Committee (RRC), Western Transportation Institute, and MDT project champions joined the collaborative exchange of experiences and ideas with MDT. *Table 1* below provides a list of all participants.

Table 1: 2023 MDT Research Peer Exchange Attendees

Organization	Name	Title
MDT		
Research Program Participants	Rebecca Ridenour	Research Section Supervisor
	Anders Johnson	Research Librarian
	Charles "Chas" Horinek	Civil Engineering Specialist
	Mike Kuni	Drone Program Manager
	Paul Hilchen	UAS Program Manager
MDT RRC Members	Malcolm "Mack" Long	Director
	Dwane Kailey	Chief Operating Officer
	Dustin Rouse	Highways & Engineering Division Administrator
	Rob Stapley	Rail, Transit, and Planning Division Administrator
	Brad Marten	Motor Carrier Services Division Administrator
Contributing DOTs		
Michigan DOT	Michael Townley	Engineer of Research
Florida DOT	Jennifer Clark	Research Development Coordinator
Nevada DOT	Lucy Koury	Research Coordinator
Oregon DOT	Michael Bufalino	State Research Manager
Other Attendees		
FHWA Montana Division (RRC Member & FHWA Liaison to Research)	Matt Strizich	Field Operations Engineer, Supervisor
Western Transportation Institute (RRC Member)	Kelvin Wang	Director
DJ&A	Peter Walker-Keleher	Facilitator
DJ&A	Shari Eslinger	Facilitator

2. Peer Exchange Overview

2.1 Goals of the Peer Exchange

MDT organized the research peer exchange to meet the requirements under 23 United States Code of Federal Regulations 420.209(a)(7). Primary functions of research peer exchanges are to:

- Provide multi-state departments of transportation an opportunity to learn from the experience of peers, enabling participants to share ideas and gain new insights, perspectives, and practical solutions to common challenges.

- Facilitate networking and relationship-building among professionals, fostering a community of practice that can support ongoing collaboration beyond the event.

- Promote dissemination of application of research findings, leading to improved decision-making, enhanced transportation systems, and ultimately, more efficient, sustainable, and safe transportation for the benefit of states and their residents.

In addition, MDT used the event to explore enhancements in the state's research process, specifically in the following topic areas:

- Taking an Idea to a Research Project
- Research implementation

2.2 Selecting the Peers and Session Facilitators

In planning for the peer exchange, MDT identified DOT peers of interest using guidance from the NCHRP Project 20-111(G) Best Practices for DOT Peer Exchanges (2017). The diverse array of invited peers fit the following four categories: one DOT of similar size to Montana (Nevada DOT); one research program that Montana aspires to emulate (Michigan DOT); one research program that is a national leader (Florida DOT); and one program that operates differently from Montana's (Oregon DOT).

Upon identification of these peers, MDT's invitation process started with individual conversations with each state to determine interest in the peer exchange topics and available dates. Once individuals were confirmed, an Outlook invitation was sent to "save the date" for each attendee; the save the date included one day of travel on either side of the peer exchange.

Facilitation services were chosen by a request for proposal process. Four firms with known transportation experience and dependable facilitation capabilities were targeted. As with the peer selection, initial phone conversations gauged availability and interest in the project, as well as providing answers about MDT's process. Proposals were reviewed and DJ&A, P.C. was selected as the preferred session facilitators for the peer exchange.

2.3   Summary of Two-Day Peer Exchange

MDT hosted an in-person, traditional format, peer exchange over two days. The exchange was structured around concepts in Simon Sinek's 2009 book, *Start With Why: How Great Leaders Inspire Everyone to Take Action,* which stresses the significance of having a clear purpose, vision, or belief when undertaking any endeavor. *Start With Why* focuses on the Golden Circle for development: Why-How-What (*Figure 1*).

The facilitation structure for the peer exchange was selected to help MDT define problem statements and extract viable, implementable solutions through information sharing and collaborative idea generation.

 Each day was dedicated to a topic (See **Appendix A: 2023 Peer Exchange Agenda**):

- Day 1: Idea to Research

- Day 2: Research Implementation

Each state presented "how" they approach each topic and shared with the group areas of improvement for each process. MDT Research Section Supervisor, Rebecca Ridenour, then isolated elements of each process that she liked, which not only helped generate additional ideas but also informed defining "what" problems were in need of solutions. The process for each topic is explored more in depth in **Section 4** and **Section 5**. *Table 2*, below, provides a summary of the MDT commitments as a result of the peer exchange.

Table 2: 2023 MDT Research Peer Exchange Summary

WHY (Purpose)	HOW (Commitments)	WHAT (Problem Statement)
	Day 1: Idea to Research	
To deliver solutions so that we can provide evidence-based insights to transportation challenges.	Create a more comprehensive problem statement worksheet to assist champions in development of problem statements in the context of strategic goals, implementation implications, resource needs, technical panel members, etc.	The current process places an excessive administrative burden upon the research project champion.
	Engage a technical panel, including middle management, early in the process to help the champion develop the problem statement.	The current process misses the opportunity to fully tap the value of in-house expertise.
	Streamline/simplify the current process by reducing Research Review Committee meetings from three to one.	The current process has redundant approval steps and does not engage and empower staff at the lowest level possible.
	Day 2: Research Implementation	
	Create and maintain a shareable (SharePoint) tool for tracking and reporting.	Unable to communicate the value of research because currently not tracking results of implementation.
	Host a roundtable with technical panel members and champions to clarify expectations, roles, enhance communication, and ensure accountability.	There is a missed opportunity to have more effective implementation from research projects.

3. Pre-Work

To help define expectations and provide consistency for information sharing, each state was assigned pre-work to prepare one month prior to the exchange. The following pre-work was requested:

Pre-Work for Day 1: Ideas to Research

- PowerPoint presentation of state's process for taking an idea to a research project. Template provided.
- 5 questions:
    1. How many research ideas does your organization typically receive annually?
    2. From the number of submitted ideas, how many turn into a research project?
    3. Who are the key stakeholders and decision-makers involved in the process of selecting and advancing an idea into a formal research undertaking?
    4. What is the average span of time for the progression of an idea from concept to starting research activities?
    5. What is your state's annual budget for home-grown research projects (not pooled funds, TSPs, etc.)?

Pre-Work for Day 2: Research Implementation

- PowerPoint presentation of state's research implementation process.
- 8 questions:
    1. What mechanisms are employed to monitor and gauge the process of implementation?
    2. How do you track successes, enhancements, or challenges of implementation?
    3. Who is assigned to lead implementation?
    4. Who is responsible for executing the proposed changes?
    5. Is there a structured review process to assess the effectiveness of the implemented change?
    6. How does upper management support implementation? How does their engagement contribute to the overall process?
    7. Are there dedicated personnel exclusively focused on overseeing and driving implementation initiatives? If so, what is the size of the implementation team?
    8. Do you have a centralized location for tracking information related to implementation? If so, describe.

The consolidated PowerPoint presentations were distributed to participants before the exchange, enabling them to familiarize themselves with one another's processes. This facilitated informed questions and meaningful discussions during the exchange. Each day of presentations can be found in **Appendices C and D**.

Participant responses to pre-work questions were compiled in a document, including translated responses presented as graphs for easy comparison. This document, detailed in **Appendix B**, was shared with participants before the exchange to ensure a shared understanding and to provide clear program comparisons.

4. Day 1 Topic: Moving from Idea to Research Project

4.1 Welcome & Introductions

Day 1 opened with group introductions and activities to expand those introductions beyond geography and title. Led by MDT Director, Malcom "Mack" Long, the executive team gave opening remarks with an appreciative welcome to all participants. Director Long emphasized the value and importance of the research peer exchange before turning the floor over to Dwane Kailey, MDT Chief Operating Officer; Dustin Rouse, MDT Highways and Engineering Division Administrator; and Rob Stapley, MDT Rail, Transit, and Planning Division Administrator.

Each member of the executive team reiterated the positive impacts of peer exchanges and agreed with Director Long's appreciation of the participants.

Photo 1: 2023 Research Peer Exchange Day 1

4.2   Start With Why

Both days were structured around concepts from Simon Sinek's books *Start With Why: How Great Leaders Inspire Everyone to Take Action* and *Find Your Why: A Practical Guide for Discovering Purpose for You and Your Team*. The concept of "start with why" stresses the significance of having a clear purpose, vision, or belief when undertaking any endeavor. Sinek uses the concept of the Golden Circle (*Figure 1*) to explain how successful leaders and organizations communicate and inspire action. It consists of three layers: **why**, **how**, and **what**.

1. **Why**: This innermost circle represents the core purpose, cause, or belief that inspires an organization. The "why" is the emotional driver behind what an organization does.

2. **How**: The middle circle represents the specific actions, strategies, or values that set an organization apart. It explains how an organization fulfills its purpose or belief. This level defines the principles and values guiding the organization's operations.

3. **What**: The outermost circle represents the tangible products, services, or solutions an organization offers. This is the "what" an organization does on a surface level, often explaining the features of a product or service.

The Golden Circle

WHAT
Every organization on the planet knows WHAT they do. These are products they sell or the services

HOW
Some organizations know HOW they do it. These are the things that make them special or set them apart from their competition.

WHY
Very few organizations know WHY they do what they do. WHY is not about making money. That's a result. WHY is a purpose, cause or belief. It's the very reason your organization exists.
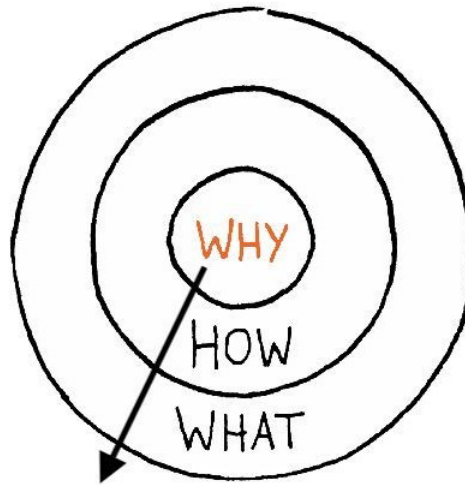
©2015 Simon Sinek, Inc.

Figure 1: The Golden Circle Concept Visual – Simon Sinek, Start with Why

Sinek's key insight is that truly inspirational leaders and organizations start with communicating their "why" - their core beliefs and purpose. By doing so, they connect with people on an emotional level, creating loyalty and driving action. In contrast, less impactful communication starts with "what" and moves to "how" and "why." Starting with "why" creates a strong sense of purpose that resonates with people and motivates them to engage and support the organization.

Sinek expands the concept of the Golden Circle and provides a structure for organizations to craft their own "why" statement by isolating values and filling those values in a "To ___ so that ___" sentence. The group utilized this framework as a theme for the exchange to define actionable improvements for MDT.

Participants tested the "start with why" principles by first crafting individual "Why Statements" as an exercise. They reintroduced themselves with the Golden Circle structure of "why" they do what they do, "how" they do it, and then "what" they do. A summary of participant responses is included in **Appendix E**: **Notes** (see 9:30 AM on Day #1).

Then, the facilitators led the group through exercises to help formulate the MDT Research "why" statement. To build this statement, each person shared stories from their research program experience. Common themes from those stories were isolated and helped extract common values of each program. A summary of participant responses is included in **Appendix E: Notes** (see 10:30 AM on Day #1) and examples of the exercise are shown in *Figure 2* below. The group chose which values represent the research role for a DOT and collaborated to formulate the following MDT Research "why" statement:"

"To deliver solutions so that we can provide evidence-based insights to transportation challenges."
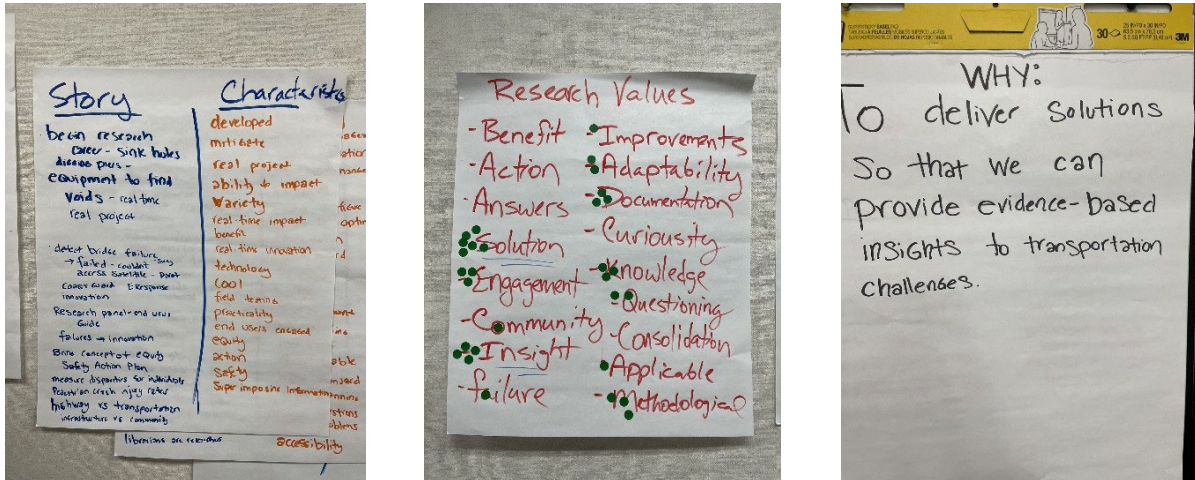
Figure 2: MDT "Why" Statement Group Work

This statement was used for the entirety of the peer exchange as the clear purpose for implementing any solution and used it to communicate and inspire action from the research team.

4.3   Presentations

Day 1 continued with "how" each state transitions ideas to research projects by presenting the PowerPoint slides requested in the pre-work, showcasing their existing process for the day's topic: Research to Idea. Additional dialogue associated with these presentations is included in **Appendix E: Notes** (see 1:00 PM on Day #1).
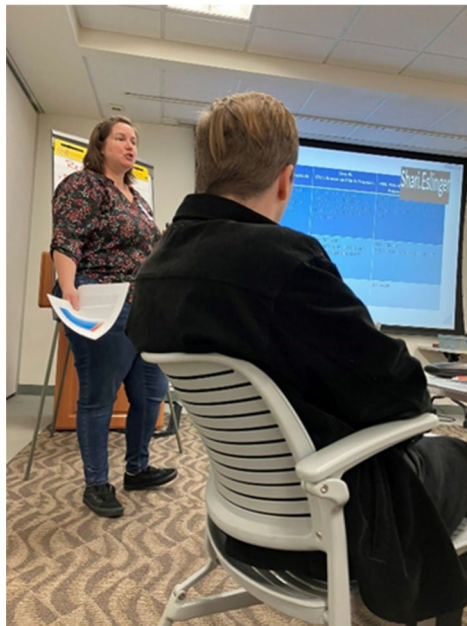

Photo 2: Lucy Koury, NDOT Research Representative, Idea to Research Project Presentation

To help each DOT home in on pressing topics, the facilitator asked each presenter to describe their most pressing challenges and opportunities for improvement. A summary of responses is shown in *Table 3*.

Table 3: Idea to Research Challenges and Opportunities Responses

State	Pressing Challenges and Opportunities
Florida	There are bottlenecks during two key points in their research project development process. First, there is a bottleneck in developing scopes. Second, there is a bottleneck with the vetting process because there is an excessive burden on the executive leadership group. Reducing these bottlenecks will make their process more efficient and expedient.
Michigan	The process is cumbersome and takes lots of time. There may be an opportunity for enhanced communication between PMs and librarian. In addition, the agency sees very few tech transfer projects as part of their program. There is an opportunity to promote more such high value projects.
Montana	Rebecca does not like having to repeatedly go back to the RRC. She noted, "we are always so busy approving these things that we don't effectively harness the insights and brain power of the RRC members." This process is fatiguing for the champions. One of the champions corroborated saying, "It's involved for sure."
Nevada	There is limited engagement on behalf of agency staff during the research project development process and an opportunity to increase accessibility for staff to participate in the process.
Oregon	Despite aspirations of a collaborative process, the process can become competitive amongst those serving as champions for their research projects. Mike would love to find a way to make the process less competitive. He noted that sometimes advisory committee merges problem statements, which allows more research problems to advance to implementation.

Following each presentation, Rebecca was asked to isolate aspects of each DOT's process she was drawn to and if they sparked additional ideas to incorporate in MDT's current process. Several key ideas generated from this process are listed below.

- **Create a fact sheet for champions.**

- **RRC to create strategic priorities.**

- **Hire an in-house project manager.**

- **Technical panel and management engage earlier in the process.**

- **Host a champion roundtable.**

- **Utilize technical task groups**.

- **Develop an 8 Question problem statement.**

- **Researchers develop scope rather than Champions**.

- **Champions have earlier approval from direct management.**

Notes pertaining to each item identified in this list are included in **Appendix E: Notes** (see 3:00 PM Day #1).

4.4   Executive Presentation and Feedback

To round out Day 1, Dustin Rouse and Rob Stapley joined the group representing the Executive Team. Rebecca presented a few of the key ideas developed from Day 1 and solicited feedback. Their feedback helped to further develop the Problem Statements and Solutions.

4.5   Problem Statements and Solutions

Utilizing the executive team feedback, the group finalized "what" the challenges for MDT were and matched them with proposed group solutions. Six problem statements were developed with fifteen possible solutions (See **Appendix E: Notes**). Rebecca then prioritized three solutions her section could commit to. To create the Idea to Research Commitment Statements for this exchange, the "why" statement was combined with "how" they propose to solve the problem, and "what" currently needs to be solved. The MDT Research Section Commitment Statements were as follows:

- *To deliver solutions so that we can provide evidence-based insights to transportation challenges*, MDT Research Section will **create a more robust and comprehensive problem statement worksheet** to help assist champions to define their problem statement because the current process places an excessive administrative burden upon the research project champion.
- *To deliver solutions so that we can provide evidence-based insights to transportation challenges,* MDT Research Section will **engage with a technical panel and middle management, early in the idea process submission.** This will help the champion develop the problem statement via a 45-minute technical review meeting prior to librarian literature review because the current process does not effectively tap the value of in-house expertise.
- *To deliver solutions so that we can provide evidence-based insights to transportation challenges,* MDT Research Section commits to **streamlining/simplifying the current process by reducing RRC meetings from three to one** because the current process has redundant approval steps and does not empower staff at the lowest level possible.

These commitments were presented to the executive team during the Day 2 Executive Presentation, summarizing both days.

5.   Day 2 Topic: Project Implementation

5.1   Agenda Deviation

The original agenda aimed to assist MDT in defining an implementation process through process mapping. However, after discussions on Day 1, it became evident that assuming responsibility for implementation was outside of the Research Section's responsibilities. Rather, implementation is the responsibility of the section of the respective research champion. It was clarified that it is appropriate for the MDT Research Section to focus on enhancing the process and establishing a mechanism to monitor and report improvements produced from implementing research to the RRC. Consequently, schedule adjustments were made to allow for this change and to finalize the problem statements and solutions from Day 1's Idea to Research topic.

5.2   Presentations

Continuing with the "why" statement developed on Day 1, each state was able to jump into sharing "how" they currently implement projects with the PowerPoint presentations requested in the pre-work for the topic of Project Implementation (example slide shown in *Figure 3*).
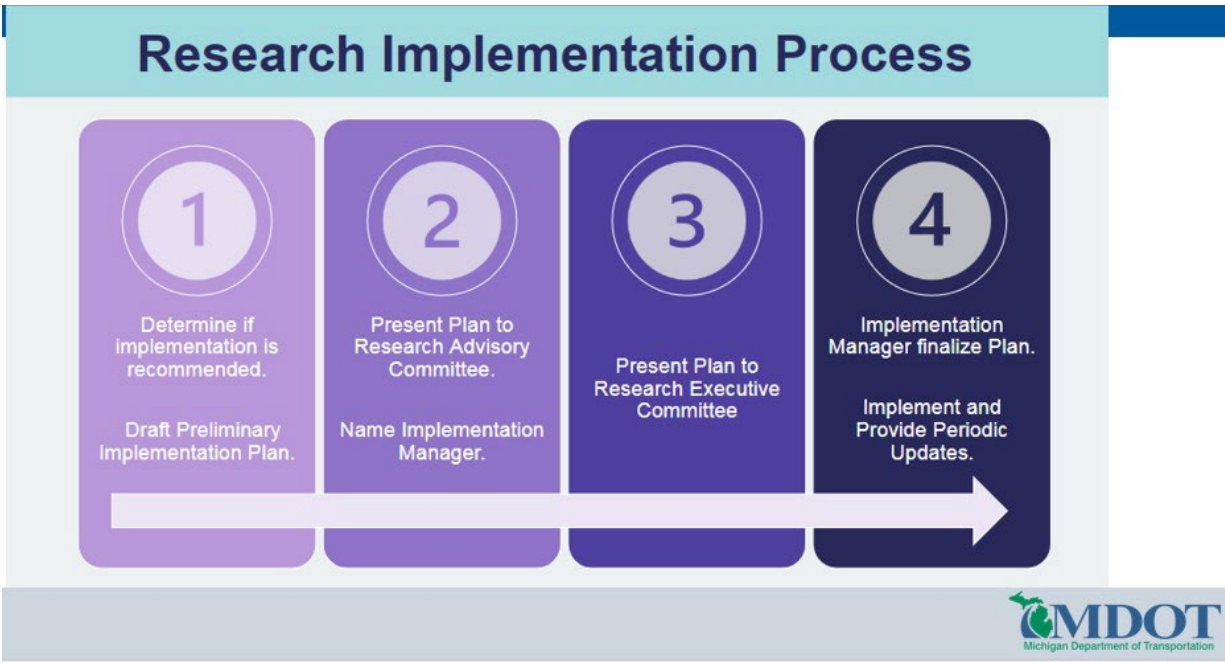
Figure 3: MDOT Research Implementation Process Slide

To help each DOT home in on pressing topics, the facilitator asked each presenter to describe their most pressing challenges and opportunities for improvement. A summary of responses is shown in *Table 4*.

Table 4: Project Implementation Challenges and Opportunities Responses

State	Pressing Challenges and Opportunities
Florida	Challenge: Jennifer suggested they may have too many plans, surveys, presentations, etc. associated with implementation and reduce the pain. Opportunity: To re-examine implementation process.
Michigan	Challenge: Getting the new innovation engineer trained on current processes and will begin isolating improvement areas. Opportunity: Innovation position can begin utilizing benefit tracking worksheet and measure the results of research.
Montana	Challenge: Rebecca cannot readily communicate the results of a given research project. Opportunity: To enhance impact of the research program.
Nevada	Challenge: The small size of their team makes implementation tracking very challenging. Opportunity: To apply low effort/high value tactics.

State	Pressing Challenges and Opportunities
Oregon	Challenge: The entire agency is overworked. Milestones are getting missed. His group can't drive implementation and others don't have time. Opportunity: Develop an Implementation Tracking database and track actions by champion and sponsor. If there is a risk of a champion or sponsor leaving the agency there is an opportunity for champion or sponsor succession planning.

Following each presentation, the facilitators asked Rebecca to identify aspects of each DOT's process she was drawn to and if they sparked additional ideas to incorporate in MDT's current process. Several key ideas generated from this process are listed below.

- **Implement Technical Briefs.**

- **Retool current tracking form.**

- **Engage the TP to determine whether the process proposed will solve the problem.**

- **Implementation reporting spreadsheet.**

- **Host a Champion Roundtable.**

5.3   Problem Statements and Solutions

Similar to Day 1, the group helped define "what" the challenges for MDT were and matched them with proposed group solutions. Several problem statements and solutions (See **Appendix E: Notes**) were generated in this exercise and Rebecca was asked to prioritize commitments. The MDT Research Section Commitment Statements were as follows:

- *To deliver solutions so that we can provide evidence-based insights to transportation challenges*, MDT Research Section will **create and maintain a shareable (SharePoint) tool (spreadsheet) for tracking and reporting** as they currently are unable to communicate the value of research due to lack of tracking.
- *To deliver solutions so that we can provide evidence-based insights to transportation challenges,* MDT Research Section will **host a roundtable with current and recent technical panel members and champions** to help define expectations and roles, enhance communication, and ensure accountability to address the missed opportunity for more effective implementation of research projects.

5.4   Executive Presentation and Feedback

At the end of Day 2, Rebecca presented the prioritized problem statements and proposed solutions from both days to six members of the executive team (Kelvin Wang, Brad Marten, Malcolm "Mack" Long, Rob Stapley, Dwane Kailey, and Dustin Rouse) to solicit feedback and engage in continued conversation regarding solutions.

Photo 3: Presentation to Executive Team. Left to Right: Michael Bufalino Lucy Koury, Jennifer Clark, Michael Townley, Brad Marten, Malcolm "Mack" Long, Rob Stapley, Dwane Kailey, and Dustin Rouse. *Presenting:* Rebecca Ridenour.

All problem statements and proposed solutions were well received and had the support of the executive team in attendance. The results of the executive team response for the proposed solutions are summarized in the subsections below.

5.4.1   Day #1 Results – Moving from Idea to Research Project

Problem Statement	Proposed Solution
The current process places an excessive administrative burden upon the research project champion.	Create a more comprehensive problem statement worksheet to help assist champions to develop problem statements in the context of strategic goals, implementation implications, resource needs, technical panel members, etc.
	What do other states do?
	• Florida – Utilizes a 2-page *Request for Research Funding* Form to help develop problem statement. • Michigan – The idea is a separate submission from the problem statement. An idea is submitted and after librarian review and inputs from the stakeholders, RAC, REC, PIs at the Program Development meetings, the PM creates a problem statement. • Nevada – Requires an 8-Question Problem Statement from the champion and it helps guide the problem statement.

Problem Statement	Proposed Solution
	• Oregon – Has a 5-question problem statement worksheet, no more than 2 pages. Additionally, published strategic direction for guidance.

Executive team feedback:

The executive team asked, "How many pages, how long, how big of a lift?" Rebecca reported that the future form length is unknown at this time. Currently the process includes three forms, and she would like to make changes to streamline to reduce to one form.

The executive team **agreed with the significance of setting strategic goals**, citing instances where they found themselves engaged in projects without a clear endpoint. They understood the need for and **were enthusiastic about helping set objectives and goals**.

The current process misses the opportunity to fully tap the value of in-house expertise.	Engage a technical panel, including middle management, early in the process to help the Champion develop the problem statement.
	What do other states do?
	• Florida – The request for research proposal form is the first step and requires the champion to consult with in-house experts and affected offices prior to submittal. The approval from management is verified during the scoping step.
	• Michigan – Host a 45-minute tech panel meeting (Step 4) that includes in-house experts and university professors. This solicits early feedback and helps develop a more informed problem statement.
	• Nevada – A co-champion from an affected department is required, when relevant, to ensure buy-in and feasibility.
	• Oregon – Has seven technical committees that help research ideas for agency fit prior to RRC review. These committees whittle 80 ideas down to 20+/-, assign, and prioritize.

Executive team feedback:

The executive team approved of this solution with "**five thumbs up**." They agreed that this change would help define the problem earlier in the process and save time and resources.

The current process has redundant approval steps and does not engage and	Streamline/simplify the current process by reducing RRC approval meetings from three to one.
	What do other states do?

Problem Statement	Proposed Solution
empower staff at the lowest level possible.	• Florida – One approval meeting per year. • Michigan – One approval meeting the first year, two approval meetings the next year. • Nevada – One approval meeting + one minor update meeting per year. • Oregon – One approval meeting per year. Utilize technical groups to funnel/screen ideas to pass through to the RRC.

Executive team feedback:
The executive team commented they liked the idea of subject matter expert groups whittling ideas down. The group **"wholeheartedly" supported reducing three approvals to one approval meeting**. They would like to **"get rid of the begging and add more bragging."** They love updates from initiatives and improvements implemented. Even more so, they love seeing the subject matter staff, the Champions, get excited about their projects and presentations. **They enjoy seeing staff "nerd out" and have pride in their work and projects.**

5.4.2 Day #2 Results – Project Implementation

Problem Statements	Proposed Solutions
Unable to communicate the value of research because currently not tracking results of implementation	Create and maintain a shareable (SharePoint) tool (spreadsheet) for tracking and reporting.
	What do other states do?
	• Florida – Has built and maintained a spreadsheet that is maintained by a Research Performance Coordinator. This staff person can use the data from the spreadsheet to create graphs and visual aids for reporting to the RRC. • Michigan – Uses Microsoft Access to track and the Innovation Coordinator is the staff person assigned to managing and tracking implemented projects. • Nevada – In Nevada, the Research Section does not oversee implementation within their scope of work. They do not currently track implementation efforts. • Oregon – No spreadsheet or tool is used to track implementation. They have a five-year check-in with project managers to see how the project went and if it was/is successful. They report these findings back to the RRC.

Executive team feedback:
The executive team would **like to track projects that are implemented**, and a tracking spreadsheet would help tell the story, would be a resource for communication, and could enable the sharing of information. They

Problem Statements	Proposed Solutions
	proposed a one-year check-in with the champion or sponsor to report back to the RRC regarding the progress of the project. They wanted to incorporate **and report the results into a quarterly newsletter and showcase internally**, their efforts and successes of research projects being implemented. It would also serve for documentation and reporting at a national level with AASHTO research awards and could help push projects forward for **national competition recognition**.
There is a missed opportunity to have more effective implementation from research projects.	Host a Roundtable with current and recent TP members and champions, to help inform how expectations, roles, and responsibilities can be more clearly defined and how to increase communication and accountability.
	What do other states do?
	• Florida – To Jennifer's knowledge, a roundtable soliciting feedback from champions and PMs has not been done. • Michigan – They do not currently host roundtables for feedback. • Nevada – Expectations, roles, and responsibilities are defined in the Research Manual and required to be defined in the problem statements and the research proposal upon submittal. • Oregon – When research closes out, the team discusses and documents the proposed roles and responsibilities for implementation. Then, five years later, the PM is asked if the assignments were followed.

Executive team feedback:

The executive team noted "what gets measured gets managed" and overall liked the idea of have at least a **closeout discussion with the PMs** regarding implementation. Although they, as the RRC, did not want to dictate how implementation happens, they were concerned about waiting 5 years before they check in on how projects are progressing. They would like to see an **annual check-in and report out to the RRC**.

An executive team member noted, "**I think this is awesome**."

They also noted that **creating a document outlining expectations, roles, and responsibilities for projects will help with succession planning** and staffing.

5.5   Conclusion and Key Takeaways

MDT hosted this peer exchange, bringing together internal champions and representatives from peer state DOTs nationwide to enhance research management processes. Peers shared visions, ideas, and best practices, exchanging resources and insights to enhance research programs and including improving operational efficiencies. Although the focus was on MDT's Research Section, participants expressed their intent to implement takeaways in their own programs. Key takeaways shared in closing remarks included:

- The executive team expressed their appreciation to the group of participants. They recognized that staff need support and encouraged all to reach out if they need resources, emphasizing DOTs are a community and peer exchanges help build valuable relationships and comradery. They also recognized the Research Section for their great work and want to encourage opportunities for "begging less and bragging more."

- Michael Townley (Michigan DOT) liked the "beg less, brag more" mentality. He enjoyed learning about the programs and making new contacts. His goal is to do more tech transfer and would like to define roles throughout the life of a project to make sure they are more implementable.

- Jennifer Clark (Florida DOT) said she has additional questions to "ask back home, specifically regarding implementation" as it is a new area of focus for her. She acknowledged the reciprocal benefit of the peer exchange.

- Lucy Koury (Nevada DOT) noted "much valuable information has come out of this." One of her key takeaways was that "NDOT research is not alone." She is part of a community and feels lucky to have been invited and had many "nuggets to take away."

- Michael Bufalino (Oregon DOT) showcased his multiple sticky notes with takeaways that will help him "sharpen their program." He said peer exchanges bring programs together and liked to see that the RRC was not only engaged in the process but contributed potential solutions.

- Rebecca Ridenour (MDT) expressed her appreciation for the group and the peer exchange "far exceeded expectations." She "learned so much and hopefully will be implementing a lot of ideas." She expressed a desire to do a virtual follow-up in one year with the participants to check in.

Photo 4: 2023 Research Peer Exchange Team: Left to Right: Lucy Koury (NDOT), Shari Eslinger (DJ&A), Michael Bufalino (ODOT), Michael Townley (MDOT), Jennifer Clark (FDOT), Peter Walker-Keleher (DJ&A), and Rebecca Ridenour (MDOT)

6. References

Sinek, S. (2009). *Start With Why: How Great Leaders Inspire Everyone to Take Action*. Portfolio.

Sinek, S., Mead, D., & Docker, P. (2017). *Find Your Why: A Practical Guide for Discovering Purpose for You and Your Team*. Portfolio.

Appendix A - 2023 Peer Exchange Agenda

MDT Research Peer Exchange 2023
September 12-13, 2023
Montana Department of Transportation
Headquarters – Auditorium West
2701 Prospect Ave – Helena, MT

Purpose: To enhance and improve research management processes. Exchange best practices, lessons learned, and discover emerging trends in transportation research, policy, and implementation. Specific exchange functions:

- Provide multi-state Departments of Transportations an opportunity to learn from the experience of peers, enabling participants to share ideas, gain new insights, perspectives, and practical solutions to common challenges.
- Facilitate networking and relationship-building among professionals, fostering a community of practice that can support ongoing collaboration beyond the event.
- Promote dissemination of application of research findings, leading to improved decision-making, enhanced transportation systems, and ultimately, more efficient, sustainable, and safe transportation for the benefit of the state and its residents.

Outcomes. Participants will:
- Acquire familiarity with other state's workflows.
- Identify 3 actionable improvements for MDT to implement at the start of the business process (idea to contract).
- Identify 3 actionable improvements for MDT to implement at the end of the business process (research conclusion to implementation).
- Identify 3 actionable improvements for each state to explore/implement within home state business process.

Materials:
- Flip Charts, markers
- Handouts: DJ&A to provide
- Warm Up materials: sticky dots, sticky name tags, 2x3 post-its
- Snacks, waters

Facilitators: DJ&A – Peter Walker-Keleher
                DJ&A – Shari Eslinger

DAY 1: Idea to Project Agenda (8:00am-5:00pm): Isolate improvements in current process

8:00 AM	**Meet & Greet** (coffee provided) (informal)
8:30 AM	**Introductions** (warm up) **Expectations and Logistics** (flip charts)

9:00 AM	**MDT Welcome**
	 • Dwane Kailey – Chief Operating Officer (opening remarks)
	 • Malcolm "Mack" Long – MDT Director (opening remarks)
	 • Introductions
	     ○ Additional RRC- Research Review Committee
	       ▪ Kathy James – Acting Bureau Chief, MDT Engineering Operations Bureau*
	       ▪ Dustin Rouse (Highways and Engineering Division Administrator)
	       ▪ Rob Stapley (Rail, Transit, and Planning Division Administrator)
	       ▪ John Schwartz (Maintenance Division Administrator)
	       ▪ (IT Division Administrator)
	     ○ Kelvin Wang - WTI (Western Transportation Institute) Executive Director*

9:30 AM	**Turning Idea into Research Project** **Start with Why** • **Golden Circle** • **Vision, mission, and value – compass** • **Personal why statement exercise: Share**
10:15 AM	**Break**
10:30 AM	**WHY exercise (x10)** **DOT core value?** WHY Research? WHY take an idea to a research project?
11:45 AM	**Networking Lunch – MDT Provided**
12:45 PM	**Carb Coma Antidote**
1:00 PM	**Continuation of the Turning Movements –** **WHAT do you do?**

	• Each state – 10-minutes business flow presentation
	    ○ Florida
	    ○ Nevada
	    ○ Michigan
	    ○ Oregon
	    ○ Montana

2:00 PM	**HOW are you different?** Business Process Comparison • Similarities/Differences • Opportunities • Assessments How does what you do differ from others? How does what you do serve why you do it?
2:45 PM	**Break**
3:00 PM	**Why Statement** Why – How – What 3 ideas to implement.

3:30 PM	**Report out to MDT Executive Team**
	Set the stage for possible business process changes. Each state to report out 3 ideas heard from other states that they would like to try on own.
	
	• RRC- Research Review Committee
	    ○ Dwayne Kailey (COO)
	    ○ Dustin Rouse (Highways and Engineering Division Administrator)
	    ○ Rob Stapley (Rail, Transit, and Planning Division Administrator)
	    ○ John Schwartz (Maintenance Division Administrator)
	    ○ (IT Division Administrator)
	• WTI (Western Transportation Institute) Executive Director
	
	Each state to report out 3 ideas heard from other states that they would like to try on own.

4:00 PM	**Close out for day**

DAY 2 Project Implementation Agenda (8:30am-5:00pm): Build process

8:30 AM	**Warm up**
8:45 AM	**Expectation review – additions**

9:00 AM	**Implementation**
	Start with Why - Review
	    • **Golden Circle**
	    • **Vision, mission, and value – compass**
	WHY implement?
	
	DOT core value

10:00 AM	**Break**

10:15 AM	**WHAT do you do?**
	    • Each state – 10-minutes business flow presentation
	        o Florida
	        o Nevada
	        o Michigan
	        o Oregon
	        o Montana

11:00 AM	**HOW are you different?**
	Business Process Comparison
	    • Similarities/Differences
	    • Opportunities
	    • Assessments
	
	How does what you do serve why you do it?

12:00 PM	**Networking Lunch – MDT Provided**
1:00 PM	**Warm Up**
1:15 PM	**Continuation of HOW** Business Process Comparison How does what you do serve why you do it? How can you better bridge Why to What?
1:45 PM	**MDT Process Mapping** What do you want to keep

2:30 PM	**Break**
2:45 PM	**How to Present** Why-How-What Draft Process Map

3:15 PM	**Report out to MDT Executive Team**
	 Set the stage for possible business process changes. Present Draft Process Map.
	 • RRC- Research Review Committee
	      o Dwayne Kailey (COO)
	      o Dustin Rouse (Highways and Engineering Division Administrator)
	      o Rob Stapley (Rail, Transit, and Planning Division Administrator)
	      o John Schwartz (Maintenance Division Administrator)
	      o (IT Division Administrator)
	 • WTI (Western Transportation Institute) Executive Director
	
	 Q&A

4:00 PM	**Break**
4:15 PM	**Close out for day**

Appendix B – Pre-Work Responses

Available upon request from the Montana Department of Transportation

Appendix C – Day 1: Idea to Research Presentation Slides

Available upon request from the Montana Department of Transportation

Appendix D – Day 2: Project Implementation and Tracking Presentation Slides

Available upon request from the Montana Department of Transportation

Appendix E – Notes

Available upon request from the Montana Department of Transportation.