



LRRB

LOCAL
ROAD RESEARCH
BOARD

Strategic Plan

FY 2019 - 2024

Report #2019-33

Our mandate

The Minnesota Local Road Research Board (LRRB) has been bringing innovations to local Minnesota transportation engineers since 1959. Established through state legislation, the LRRB sponsors transportation research in the areas of design, construction, maintenance/operations, environmental compatibility, administration and implementation needs of cities and counties.

Every year, the County Screening Board and the City Screening Committee recommend to the Commissioner of Transportation a sum of money that the Commissioner of Transportation shall set aside from the county state-aid highway fund and the municipal state-aid street fund.

According to Minnesota statute, the amount set aside from each of these funds shall not exceed 1/2 of one percent of the preceding year's apportionment sum.

According to Minnesota statute, LRRB funding must support the following:

- Research that improves the design, construction, maintenance and environmental compatibility of state-aid highways, streets, and appurtenances,
- Construction of research elements and reconstruction or replacement of research elements that fail,
- Programs for implementing and monitoring research results.

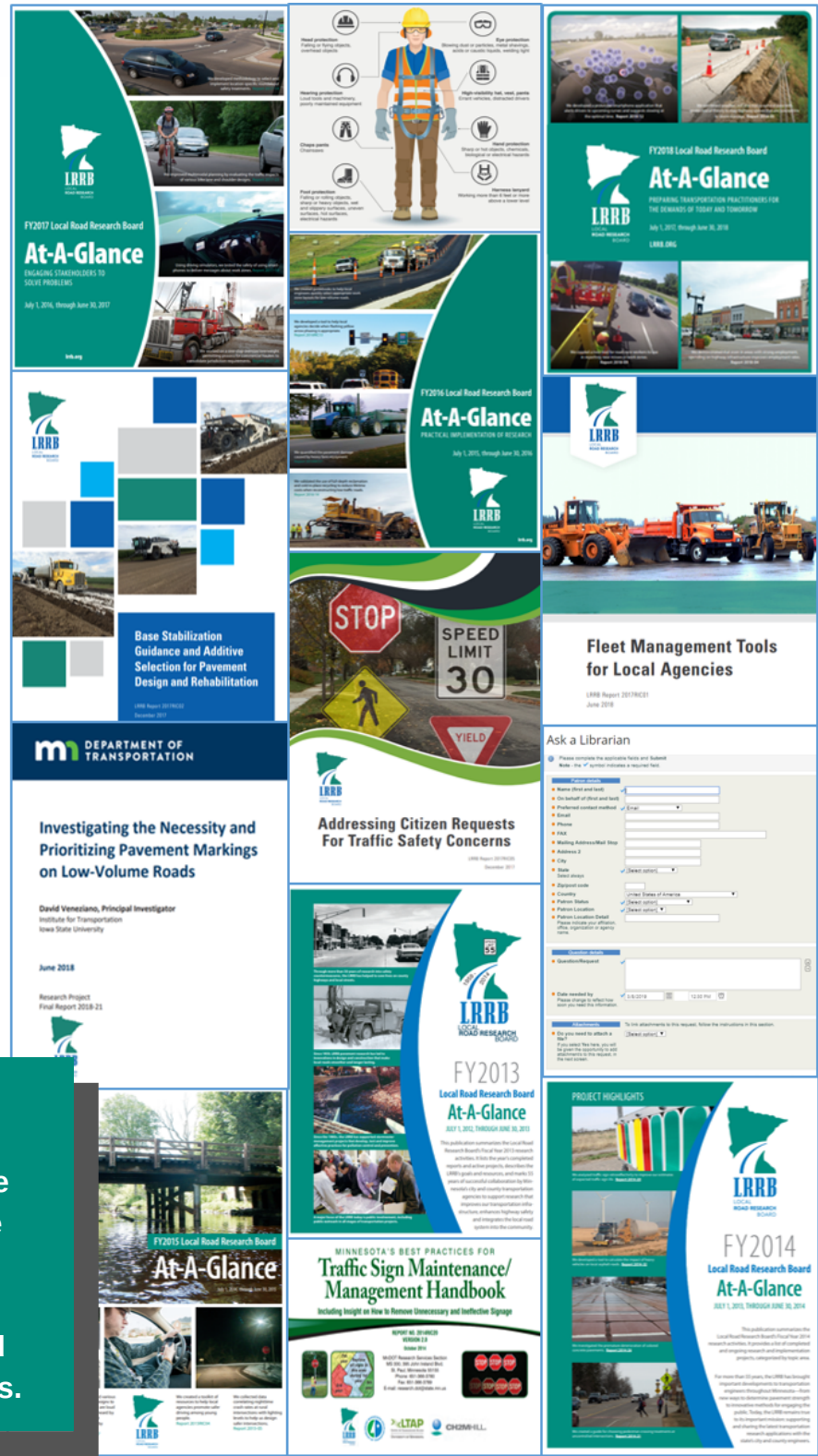
Over the last 15 years, LRRB has sponsored more than 200 research projects, addressing the problems and challenges in providing a safe and efficient local transportation system across Minnesota.

While the organization has evolved over that time, LRRB's fundamental mission remains evergreen:



Our mission

The mission of the LRRB is to serve local road practitioners through the development of new initiatives, the acquisition, and application of new knowledge, and the exploration and implementation of new technologies.



How does LRRB organize for research?

LRRB governs and sponsors a broad spectrum of transportation research. LRRB doesn't employ staff and researchers; rather it relies on a network of partners to engage their technical expertise, management capability, and administrative support. Chief among these partners are the Minnesota Department of Transportation (MnDOT) Office of Research & Innovation, and the University of Minnesota (UMN) Center for Transportation Studies, as shown. Local practitioners are integral to the functioning of LRRB, as they comprise the Board's membership and standing committees, participate in prioritizing research, and serve on Technical Advisory Panels (TAPs). These practitioners are also the main target audience for LRRB's research and knowledge outcomes.



LRRB strategic planning: preparing for our future

LRRB is one of only a handful of transportation research organizations in the nation focused on local transportation system issues. The Board takes a proactive approach to strategic planning, recognizing that as the local system and its users' needs evolve, research activities must anticipate those needs and issues and bring solutions to bear.

LRRB's Strategic Plan is a living document, crystalizing the Board's intent and articulating its priorities.

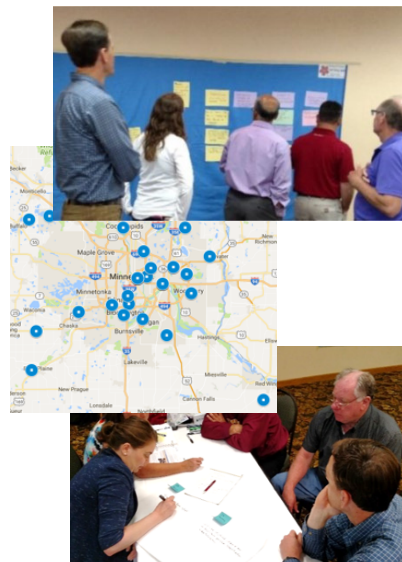
While LRRB refines its Plan annually, the Board recognizes the need to revisit its core elements from time to time to re-align the organization with new and emerging priorities. The last significant update resulted in the 2012 Strategic Plan which served LRRB well over most of the last decade.

The Board underwent a systematic Plan update process in late 2017 and 2018 to refine LRRB's vision, improve processes and operations, and streamline governance. These efforts will enhance how LRRB meets the needs of Minnesota's local transportation practitioners, by continuing research that is relevant, useful, and practical. LRRB has already been implementing the strategies that emerged from the planning process.



Our vision

LRRB is the nationally recognized model for a practitioner-driven research organization focused on developing and implementing solutions for the local transportation system.



Inputs to and activities in LRRB's process for this Strategic Plan (2019 – 2024) include:

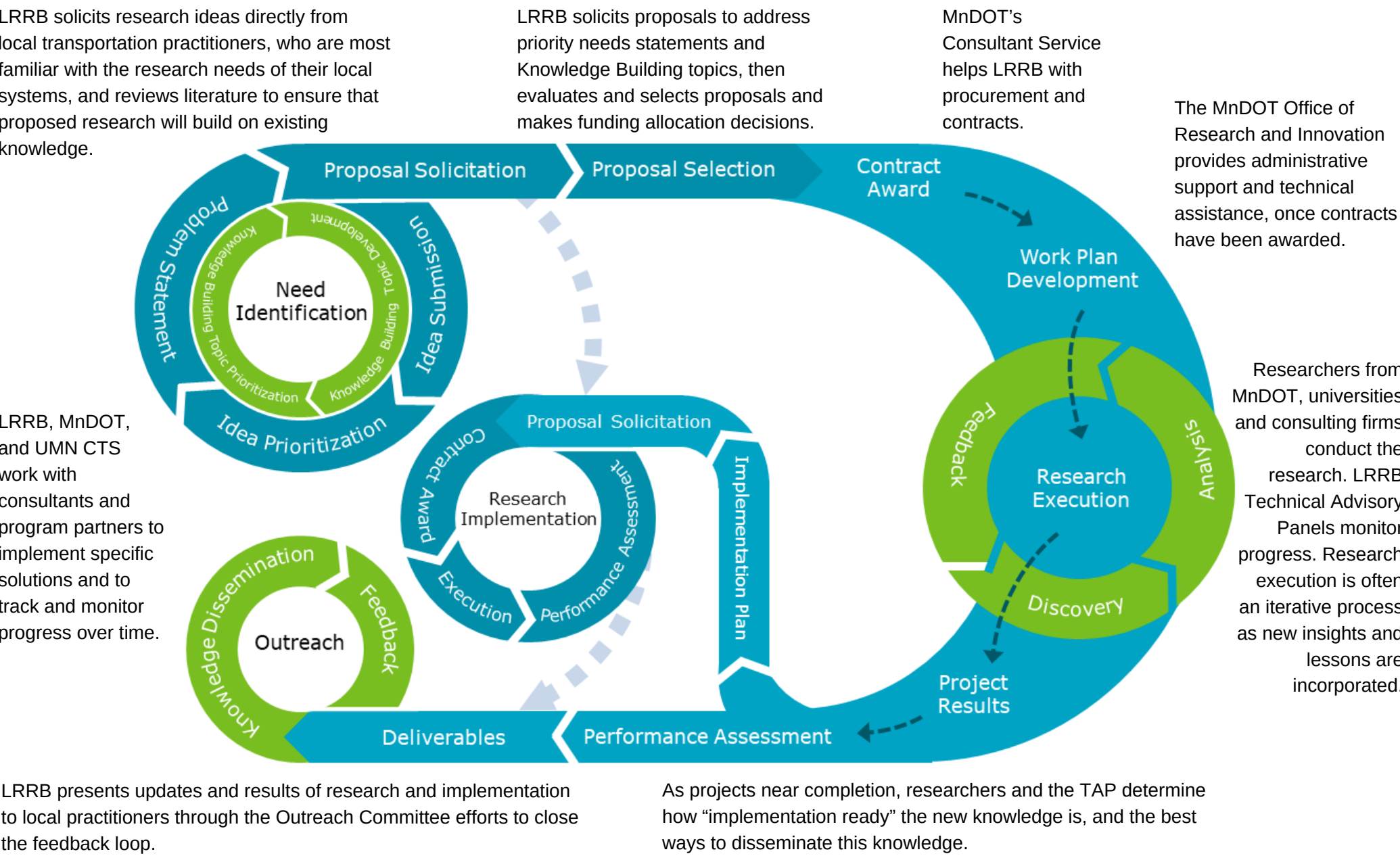
- An initial phase of detailed survey-based stakeholder engagement and targeted consultations with LRRB's key stakeholders to assess strategic needs and opportunities for LRRB as an organization.
- An in-depth analysis of LRRB's structure, operations, administration, and budget.
- An evaluation of LRRB's program in the context of nationwide trends and best practices in practitioner-led applied transportation research.
- Review and guidance provided by a dedicated project Technical Advisory Panel.
- A second phase of survey-based stakeholder engagement for feedback on the proposed goals and strategies which have become the core elements of the new Strategic Plan (2019 – 2024).

Strategic Plan (2019 – 2024) process outcomes: vision, goals and strategies:

- LRRB's vision is the long-term 'state of being' to which it aspires. The vision that emerged from stakeholder engagement in the Strategic Plan update process is one of the strengthened stakeholder relationships and streamlined operations, translating to leadership for and positive impact on Minnesota's local transportation system.
- LRRB's goals are the "WHATs" that drive the organization over time. They resonate well across all stakeholders, remain relevant for 5-7 years, and are both inspirational and aspirational. They are ends, not means, and link directly to LRRB's long-range mission. Goals are specific elements that embody an organization's vision ("state of being") and make it a reality.
- LRRB's strategies are the "HOWs" (actions) that will help realize the "WHATs" (goals). They are high level and mid-term (2-3 years), but not necessarily trivial to implement. They are strong, substantive, and point clearly to action.

What is the lifecycle of LRRB's research?

The goals and strategies of this Strategic Plan (2019 – 2024) address the major phases of the lifecycle of LRRB's research activities.



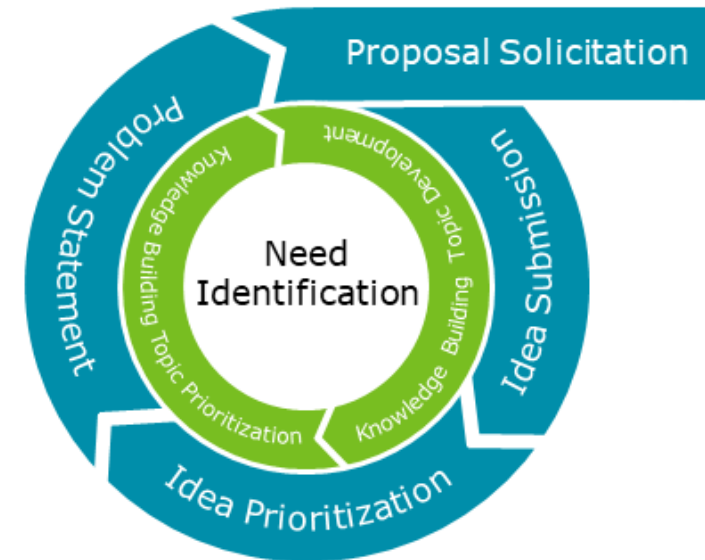
Goal 1: LRRB prioritizes and funds research that focuses on the local transportation system

Strategies

Strategy 1a: Implement consistent and transparent processes for prioritizing and selecting projects.

Strategy 1b: Prioritize topics and stakeholder needs that have high potential for impact.

Strategy 1c: Address the research needs of both cities and counties.



To ensure that research projects are responding to city and county needs, LRRB implements the following process for selecting new projects:

- **Idea Solicitation:** LRRB representatives hold sessions at the State Aid prescreening meetings, where city and county engineers, as well as other stakeholders, can discuss their research and technology transfer ideas.
- **Idea Prioritization:** In an email survey, city and county engineers prioritize the list of ideas generated from the prescreening meetings.
- **Feedback:** LRRB reports on the ideas that were collected in step 1 and prioritized in step 2 in city/county association meetings.

➤ **Need Statement Development:** LRRB develops needs statements for prioritized ideas from the pre-screening meetings.

➤ **Knowledge Building Topic Development:** LRRB identifies priority topics that reflect horizon thinking on long-term challenges and require innovative research that will help build knowledge. CTS leads LRRB members through the process to identify/update and prioritize Knowledge Building research topics and descriptions.

➤ **Proposal Selection:** LRRB issues requests for proposals, reviews and evaluates proposals, and selects proposals to fund.

LRRB's research ideas come from local Minnesota transportation professionals.



LRRB members collect research ideas at a State Aid prescreening meeting (2017 At-A-Glance Report).

Goal 2: LRRB emphasizes research implementation and tracks progress to evaluate the impact of research on practice

Strategies

Strategy 2a: Allocate and periodically refine a budget for implementation and technology transfer.

Strategy 2b: Adopt a long-term perspective, and track implementation outcomes and impacts over time.

The LRRB selects prioritized implementation activities based on recommendations from the Research Implementation Committee (standing LRRB subcommittee) and entrusts the RIC with the responsibility for their execution, as well as budget allocation.

LRRB also establishes the relevant performance measures for each implementation project based on project scale, user characteristics, and practical assessment methods.

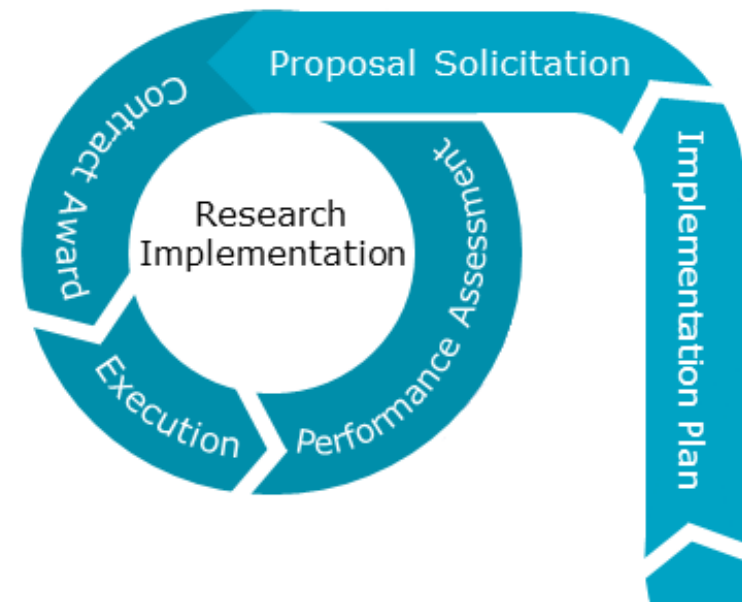
➤ **Implementation feasibility assessment:**

At the project selection stage, LRRB uses a simple framework, associated performance measures, and guidance for evaluating implementation project feasibility and importance.

➤ **Implementation tracking:** MnDOT Office of Research & Innovation has a well-developed database system – Automated Research Tracking System (ARTS) for tracking project attributes and progress. The system has been expanded to incorporate more information for performance assessment, including tracking projects for a longer horizon of three to five-year post-implementation.

➤ **Communication and outreach for performance assessment:** LRRB maintains a program-level implementation performance scorecard to close the feedback loop with project selection, corresponding funding allocation, and related outreach to practitioners.

Outcome assessment should cover all aspects of the research lifecycle, especially for determining the overall impacts of research implementation to close the feedback loop for research and implementation decision-making.



Goal 3: LRRB maintains a feedback loop with researchers and local practitioners

Strategies

Strategy 3a: Communicate the outcomes to local practitioners to translate research into practice, and inform future research ideas.

Strategy 3b: Inform the stakeholders about how to obtain data on research impacts, knowledge products, and tools to deliver tangible benefits.

Strategy 3c: Understand how implemented research, tools and knowledge products are making a difference for practitioners.



LRRB’s standing Outreach Committee (OC) increases the awareness of LRRB functions, products, resources, and initiatives within the transportation community.

The OC efforts enhance the impacts of LRRB’s research and implementation initiatives through the following activities:

- **Developing the appropriate communication approach** for transferring the results of completed initiatives to transportation practitioners,
- **Improving awareness and access to the knowledge** developed through LRRB’s research and implementation efforts, and
- **Seeking inputs** on the usefulness and effectiveness of LRRB’s research and implementation activities.

The OC customizes and crafts communication materials using a variety of vehicles for transferring knowledge to practitioners across LRRB’s extensive outreach mechanisms.



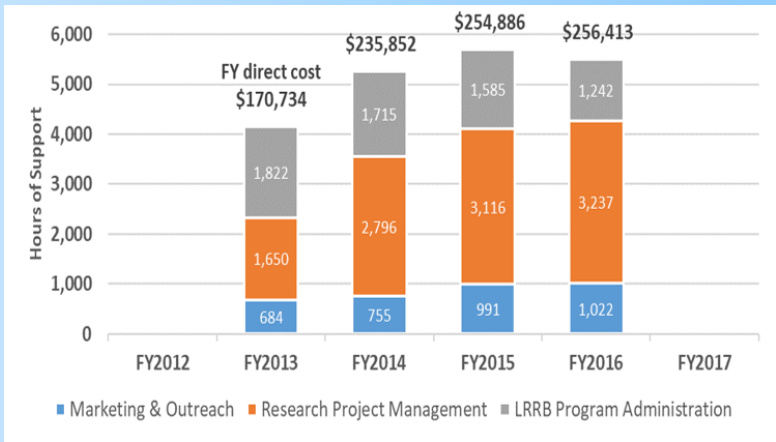
Goal 4: LRRB streamlines project and program management

Strategies

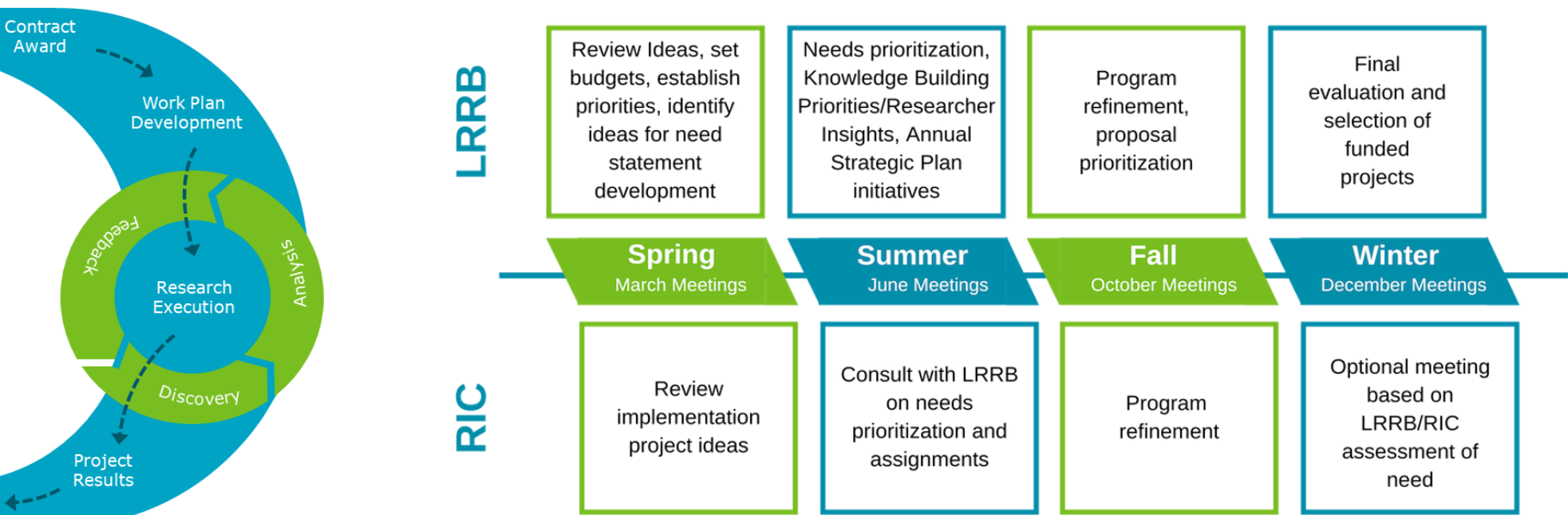
Strategy 4a: Enhance the methodologies in tracking and evaluating time and resources spent in managing the research and implementation program.

Strategy 4b: Refine the approach to meetings and administrative activities.

The LRRB and RIC members have multiple meetings annually. These meetings enable the members to engage in technical and managerial discussions with researchers and project investigators. Members also tend to administrative and contractual matters to further the annual cycle of activities.



LRRB puts limited resources to good use through project-based cost accounting. Tracking inputs and resources invested enables LRRB to understand the trade-offs between the benefits of different types of research in relation to the resources required.



LRRB and RIC Meetings

Goal 5: LRRB evaluates its program comprehensively over time

Strategies

Strategy 5a: Assess the program in terms of inputs and resource requirements, and also in terms of outputs and outcomes over time.

Strategy 5b: Develop a performance assessment approach, measures, and guidance for evaluating both research and implementation outcomes.

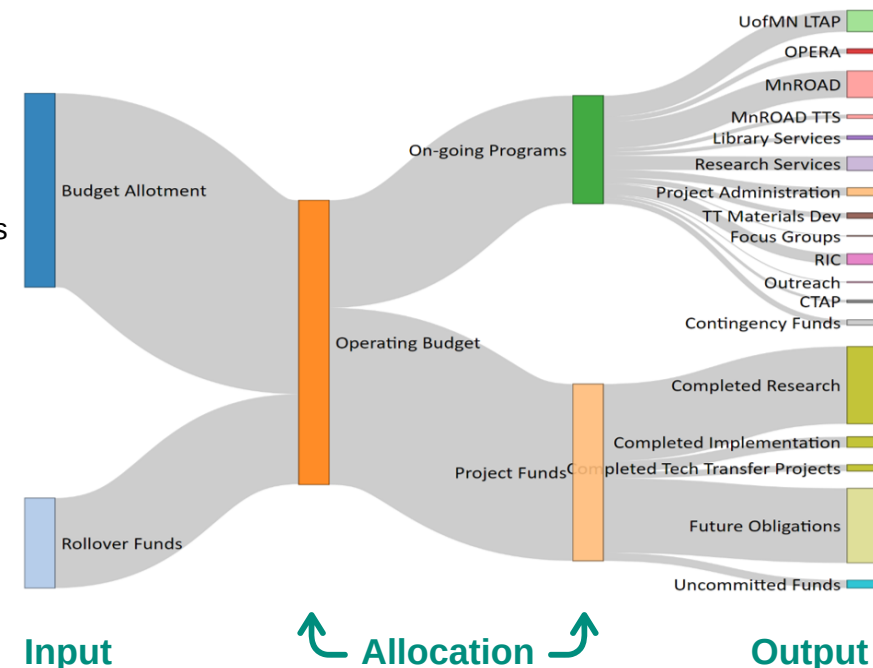
Strategy 5c: Craft a narrative that communicates the depth, breadth, value, and impact of the LRRB program.

LRRB has acted on recommendations of the Strategic Plan to systematically monitor and assess the performance of its research activities through:

- **Research feasibility assessment:** LRRB uses a simple framework for evaluating research project feasibility and importance at the project selection stage.
- **Research project tracking:** MnDOT Office of Research & Innovation uses the Automated Research Tracking System (ARTS) for tracking project attributes and progress that facilitates performance assessment.
- **Communication and outreach for performance assessment:** Using a program-level research performance scorecard, LRRB communicates the performance of project selection, funding allocation, and related outreach efforts to transportation practitioners.
- **Implementation evaluation:** RIC first identifies the implementation projects and establishes the relevant performance measures that can be tracked over a time-frame of 3-5 years during and after implementation has commenced to assess and report on performance.

LRRB develops a narrative report on program outcomes annually, in which it summarizes the state of LRRB's activities, highlights accomplishments and milestones achieved and describes goals and initiatives.

LRRB sponsors research that will ultimately improve the quality of the transportation system, particularly improving “the design, construction, maintenance and environmental compatibility of the state-aid highways, streets, and appurtenances.”



Companion Materials and Resources



LRRB Website

Research Implementation Committee

Outreach Committee

Technical Advisory Panels

LRRB Knowledge Building Priorities

**RIC Orientation and Procedure
Manual**

**Office of Research
& Innovation**



UNIVERSITY OF MINNESOTA

**Center for Transportation
Studies**

Acknowledgments

LRRB gratefully acknowledges the support of the following organizations and groups in development of innovative research and implementation of new knowledge across Minnesota:

Minnesota Department of Transportation

University of Minnesota Center for Transportation Studies

LRRB Research Implementation Committee

LRRB Outreach Committee

City Engineers Association of Minnesota

Minnesota County Engineer Association

Multicultural Center for Academic Excellence

National Road Research Alliance

Local Technical Assistance Program

Operational Research Assistance (OPERA) Program

Circuit Training and Assistance Program

Minnesota Transportation Libraries

Minnesota's Cold Weather Pavement Testing Facility -
MnROAD