# MnDOT Implementation Project Guidelines and Process

**WHAT IS IMPLEMENTATION?**

Good research implementation projects save time, money or resources by helping put new ideas and technology into practice. They might solve a long-time problem or improve how MnDOT does business. We are looking for pilot projects of new technology or research that can set the stage for future full deployment. We're not looking to fund standard equipment purchases, a mass deployment or basic research with these funds.

The types of projects funded often include the development of manuals or best-practices guides, training curricula, technology pilot, new method testing, proof-of-concept validation and innovative equipment evaluation.

*Examples of recent projects*

- Culvert repair best practices guide
- Demonstration of AVL technology in grass mowers
- Inventory of roadside infrastructure using mobile mapping technology
- Development of a statewide bride inspection contract using drone technology
- Pilot of an ultrasonic measuring system for bridge corrosion

**PROJECT GUIDELINES**

1. **Address Problem or Need -** The proposal needs to clearly state the problem being solved and the opportunity or need that is being satisfied.

2. **Research Connection**
   The implementation project must demonstrate, test or advance a new practice. Preferably, it builds on completed national, state or local research, including from the following programs:
   a. Federal Research
      i. National Cooperative Highway Research Program (NCHRP) or other Federal Cooperative Research Program project
      ii. Pooled Fund Research Project (MnDOT-lead, MnDOT participation in pooled fund project/program, or single state project)
   b. State Research
      i. MnDOT Research Project
      ii. Other State DOT Research Project
      iii. Intelligent Transportation System (ITS) Inst. or MN Guidestar Program
      iv. MnDOT's Maintenance New Technology Research and Equipment Committee (NTREC) program
      v. MnDOT's Pavement Research Facility - (MnROAD)
   c. Local Research
      i. Local Road Research Board (LRRB) research projects

3. **Demonstrate Application –** The proposal needs to indicate how the results of the implementation project will be used or applied within the department. State how the results could lead to full implementation in day-to-day practice and whether there is commitment to support implementation statewide, and how the benefits can be quantified.

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4. **Internal Champions –** Implementation proposals must identify a MnDOT staff person as the project manager to move forward for funding consideration, and it is helpful to also identify a management champion at the DE, ADE or Office Director-level.

5. **Other Considerations:**
   *Evaluation and Report* – Each project should produce a final product or a publishable report on the project outcomes.

   *Equipment purchases*
   a. Should be kept to a minimum and only include items necessary to support the implementation project.
   b. Can be used as seed money to demonstrate the viability of the equipment. Pilot projects should be limited to a specific area or location.
   c. Not intended as a funding source for full deployment of equipment through the state.
   d. Can't be used to supplement equipment budgets.
   e. Should not include standardized equipment.

   *Construction Project Supplemental Agreement*
   a. Implementation in a construction project should be discussed at the conceptual stage to determine feasibility of the financing, and how the project report will be completed.

**PROCESS**

1. **Submit an Idea**
   a. Provide a short description of the implementation idea on the MnDOT/LRRB IdeaScale website: http://mndot-lrrb.ideascale.com/
   b. The implementation idea must be submitted by a MnDOT employee

2. **If Your Idea is Selected, Submit an Implementation Project Proposal**
   a. MnDOT's Office of Research & Innovation will send a proposal form to selected idea submitters requesting detailed information about the proposed implementation project.
   b. Complete the form as thoroughly as possible (more than one person can contribute) and submit the draft to the MnDOT Office of Research & Innovation.
   c. Research Services will assist with completion of the final form for submission to the MnDOT Research Steering Committee.

3. **Review, Funding Decision and Completion of Work Plan**
   a. Proposals for implementation funding are reviewed by the MnDOT Research Steering Committee.
   b. Each proposer gives a short presentation (15 minutes plus 5 minutes for Q & A) of their Implementation Project Proposal.
   c. If funding is approved, the proposer and Office of Research & Innovation will determine an appropriate contracting mechanism and work with the investigator to complete a detailed Implementation Project Work Plan (either university or consultant).
   d. Once the Work Plan is approved, the project moves forward to the procurement stage (contract, work order, etc.)

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