



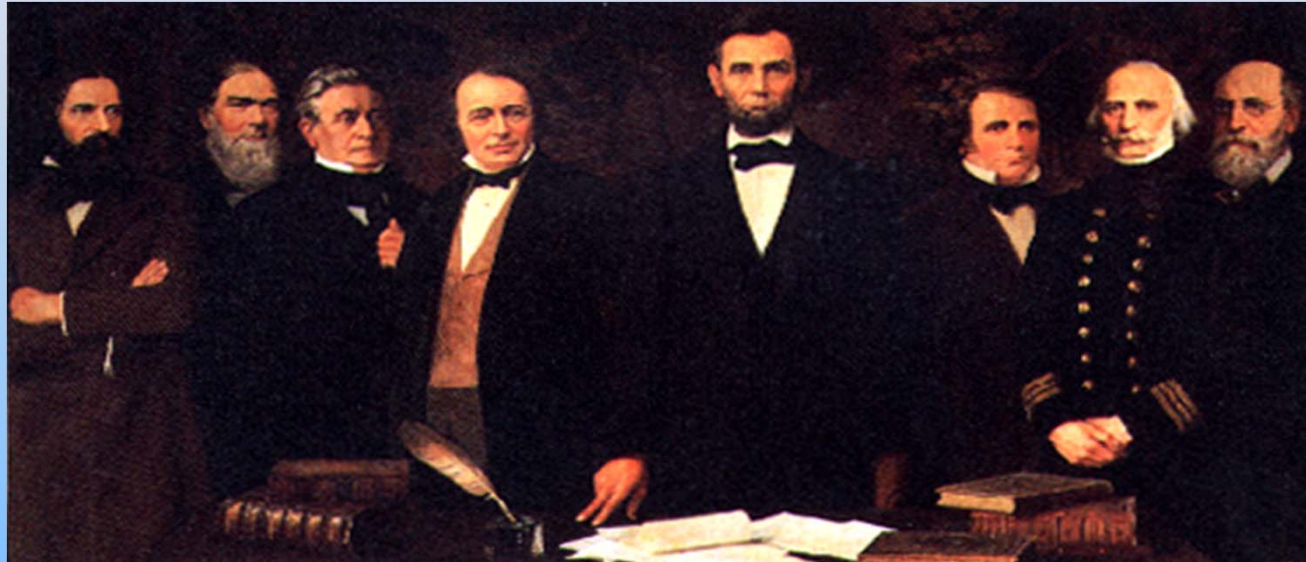
TRANSPORTATION RESEARCH BOARD

OF THE NATIONAL ACADEMIES

TRB Overview



THE NATIONAL ACADEMIES



1863

- National Academy of Sciences

1964

- National Academy of Engineering

1970

- Institute of Medicine

1920 - Advisory Board on Highway Research Established



TRB Today

**BRINGING THE TRANSPORTATION
COMMUNITY TOGETHER!**

- **Delivering Policy Analysis & Advice**
- **Managing Research Programs**
- **Providing Tools for Researchers & Practitioners**



Bringing the Transportation Community Together

- Annual Meeting – 12,000 Attendees
- Conferences and Workshops – 50+ / 5,000+ Participants
- Committees and Panel Meetings – 6,500+ Participants
- Webinars – 25,000+ Participants
- State, University, and Transit Representatives – 250+ Organizations
- Staff Field Visits



TRB Annual Meeting Events

- 12,200 attendees
- 750 workshops & sessions
- 5,000+ presentations
- 500 TRB committee meetings
- 150+ other meetings
- **NETWORKING OPPORTUNITIES!**



TRB TRANSPORTATION RESEARCH BOARD

OF THE NATIONAL ACADEMIES

Standing Committees

Your Entry into the TRB Community:

www.MyTRB.org





TRANSPORTATION RESEARCH BOARD

OF THE NATIONAL ACADEMIES

Standing Committees

WHAT DO THEY DO?

- **Constitute communities of interest**
- **Identify research needs**
- **Sponsor sessions, conferences, and meetings**
- **Review and publish papers and reports**
- **Share information**

Standing Committees

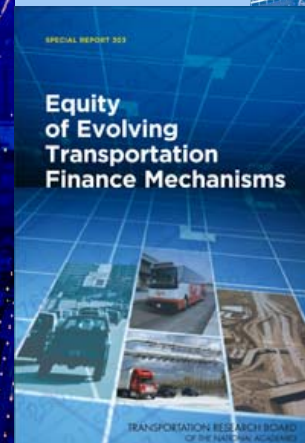
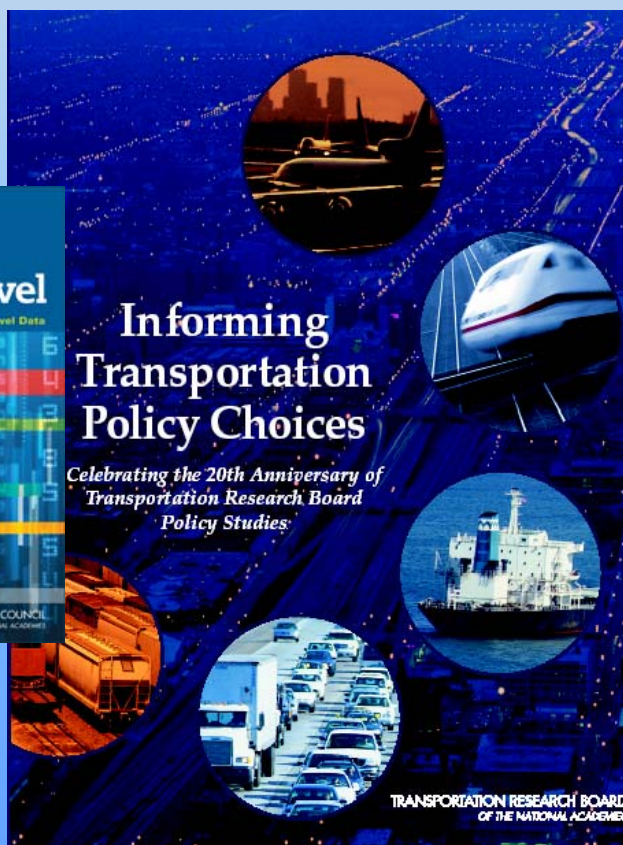
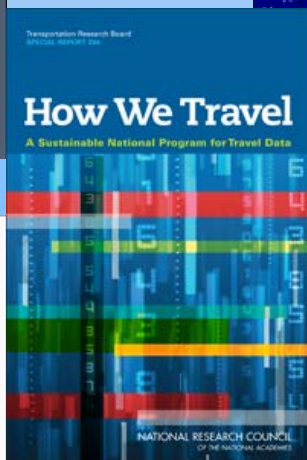
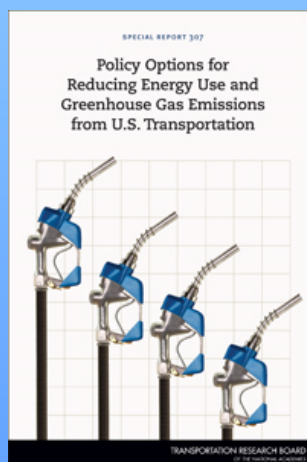
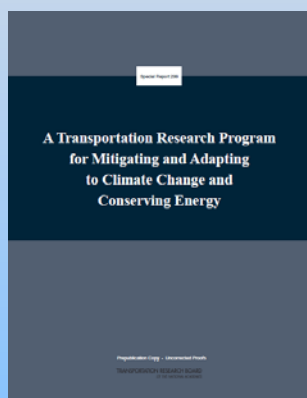
WHY GET INVOLVED?



- Professional and personal growth
- Stay current on issues and research
- Expand your networks and contacts
- Share what you learn with others in your organization

Become Part of a Community!

Policy Analysis & Advice



Research Management Cooperative Research Programs

- Highways
- Transit
- Airports
- Freight
- Hazardous Materials
- Rail



Characteristics of Cooperative Research Programs

- Practitioners select projects
- Emphasis on solving problems; short-term results
- Panels oversee each project
- Consultants, universities conduct research
- 200+ reports each year



Strategic Highway Research Program (SHRP2)



- ***Safety:*** Making a Significant Improvement in Highway Safety
- ***Renewal:*** Accelerating the Renewal of America's Highways
- ***Reliability:*** Providing a Highway System with Reliable Travel Times
- ***Capacity:*** Providing Highway Capacity in Support of the Nation's Economic, Environmental, and Social Goals

www.TRB.org

Promoting Innovation and Progress in Transportation



Transportation practitioners, researchers, public officials, and other professionals need credible, high-quality information and research results to address the transportation challenges of the 21st century.

The Transportation Research Board engages professionals worldwide in a broad range of interdisciplinary, multimodal activities to lay the foundation for innovative transportation solutions. Join us!



Volunteer



Join / Support



Propose



Stay Informed

Browse Information By Mode



Aviation



Highway



Marine
Transportation



Motor
Carriers



Pedestrians
and
Bicyclists



Pipelines



Public
Transportation



Rail

Browse Information By Topic

Design & Construction

<http://www.trb.org/Main/Home.aspx>

Operations & Preservation

[Maintenance & Preservation](#)

Policy & Organization

[Administration & Management](#)

Safety, System Components, and
Users

[Freight Transportation](#)

Recent Publications



[Strategies to Optimize Real Property Acquisition, Relocation Assistance, and Property Management Practices](#)

November 11, 2014



[TRB and Resilience: A Summary of Transportation Research Board Activities](#)

November 10, 2014



[TRB Security, Emergency Management, and Infrastructure Protection Research Status Report](#)

November 10, 2014



[TR News September - October 2014: Transportation in Tribal Lands: Challenges and](#)



TUESDAY, MAY 13, 2014

SUBSCRIBE

TRB NEWS

[2015 TRB 94th Annual Meeting and Transportation Research Record Call for Papers](#)



TRB standing committees have issued [calls for papers](#) for the TRB 94th Annual Meeting, January 11-15, 2015, in Washington, D.C., and the Transportation Research Record: Journal of the Transportation Research Board (TRR). While papers addressing any relevant aspect of transportation research will be considered, some committees are soliciting...

[TRB Webinar: Transportation Asset Management Implementation Tips and Tricks](#)

TRB will conduct a webinar on May 15, 2014, from 12:30pm to 2:00pm ET that will discuss various aspects of Transportation Asset Management (TAM) implementation at five state departments of transportation. Participants must register in advance of the webinar, and there is a fee for non-TRB Sponsor or non-TRB Sustaining Affiliate employees. A...

[TRB Webinar: Highlights from the "Tools and Technology Track" of the 10th National Transportation Asset Management Conference](#)

TRB will conduct a webinar on May 19, 2014, from 2:00pm to 3:30pm ET that will cover presentations on data issues, risk analysis tools, and information technology (IT) implementation that will be given at the 10th National Conference on Transportation Asset Management (TAM) in April 2014. Participants must register in advance of the webinar,...

[TRB Webinar: Peer to Peer: Detailed Looks at MAP-21 Asset Management Plan Pilot States](#)

UPDATE YOUR INTERESTS ☒

Remember you can [update your interests](#) at any time to help us deliver only the most relevant information to you each week.

[Update my interests](#)

CONNECT WITH TRB



Email Us



Find us on Facebook



Follow us on Twitter

BROWSE INFORMATION BY MODE ON TRB.ORG



Aviation




Highway



Marine Transportation

Follow TRB on:

Linked in

twitter 

@TRBofNA #TRBAM



facebook®

TRB Research Databases



TRB Young Members Council Goals

- **Involvement:**
 - Providing opportunities for young professionals to get actively involved with TRB
- **Resources:**
 - Providing targeted resources geared for young professionals in the form of technical sessions, events, and guides
- **Connections:**
 - Providing networking opportunities and connecting young professional peers from around the world
- **Representation:**
 - Serving as young professionals' liaison to and from TRB leadership and the research community to address issues of importance to young members



TRANSPORTATION RESEARCH BOARD

OF THE NATIONAL ACADEMIES

www.MyTRB.org

Broaden Your Horizons!



The Challenge of Delivering Large, Complex Transportation Projects

How TRB's SHRP 2 Program
Addressed This Problem



What is SHRP2?

Save lives. Save money. Save time.



- \$218 million, federally funded research program to address critical transportation challenges:

- Making highways safer
- Fixing deteriorating infrastructure
- Reducing congestion



- Collaborative effort of AASHTO, FHWA, and TRB



- Aims to advance innovative ways to plan, renew, operate, and improve safety on the Nation's highways

SHRP 2 Focus Areas



- **Capacity:** Systematizing collaborative decision making to achieve better, faster project decisions
- **Safety:** Fielding the largest-ever naturalistic driving study to reduce crashes and save lives through understanding driver behavior
- **Renewal:** Making rapid, innovative construction possible for “ordinary” projects
- **Reliability:** Providing management and technical tools to reduce congestion through operations

Problems Identified



1. Projects were often delayed due to key decision makers
 - becoming involved late in the process,
 - not agreeing with decisions made earlier in the process,
 - forcing decisions to be revisited.
2. Failure to agree on the decision making process and criteria (performance measures) to be used resulted in delays and challenges to decisions
3. Alternatives added late in the process due to failure to identify full range of alternatives earlier caused delays
4. The complex planning and project development process is time consuming and affords many opportunities for missteps

Problems Identified

5. Conflicts resulting from poor integration of transportation plans with
 - land use plans,
 - environmental plans,
 - economic development plans, and
 - community plans
6. Key segments of the public became involved late in the process, forcing previous decisions to be revisited



Problems Identified

7. Conflicting goals between transportation and environmental resource agencies resulted in intractable disagreements and failure to get approvals
8. The price for failure to work together has been endless
 - redo loops
 - lawsuits
 - delays
 - cost escalation



Conclusions of Research

1. The transportation planning and project development process as practiced and as defined in federal statutes and regulations is an elaborate and complex process that involves a series of decision points
2. Many of the key decisions that enable a project to be approved should be made before the NEPA process begins
3. Collaborative decision-making is a key to success, supported by an effective strategy for enhancing the environment, improving economic vitality, and achieving community goals
4. Decisions need to be agreed to by key decision makers at each point in the process and not revisited

Success Factors Identified from Research

1. Collaborate with agency partners and the public
2. Use performance measures and evaluation criteria
3. Structure decision making/use a formal process
4. Integrate transportation decision making with land use and environmental issues
5. Link phases of the transportation decision-making process
6. Manage risks



Direction of the Technical Coordinating Committee



To create a systematic approach to support practitioners we need to:

- Document the decision points in a process that follows the steps used in successful capacity expansion projects
- Embed methods to integrate transportation, environmental, community, and economic planning into decision points
- Organize information on lessons learned from case studies of successful projects around the decision points in the process
- Make information easily accessible to professionals in the field

The Problem Statement and Research Objectives



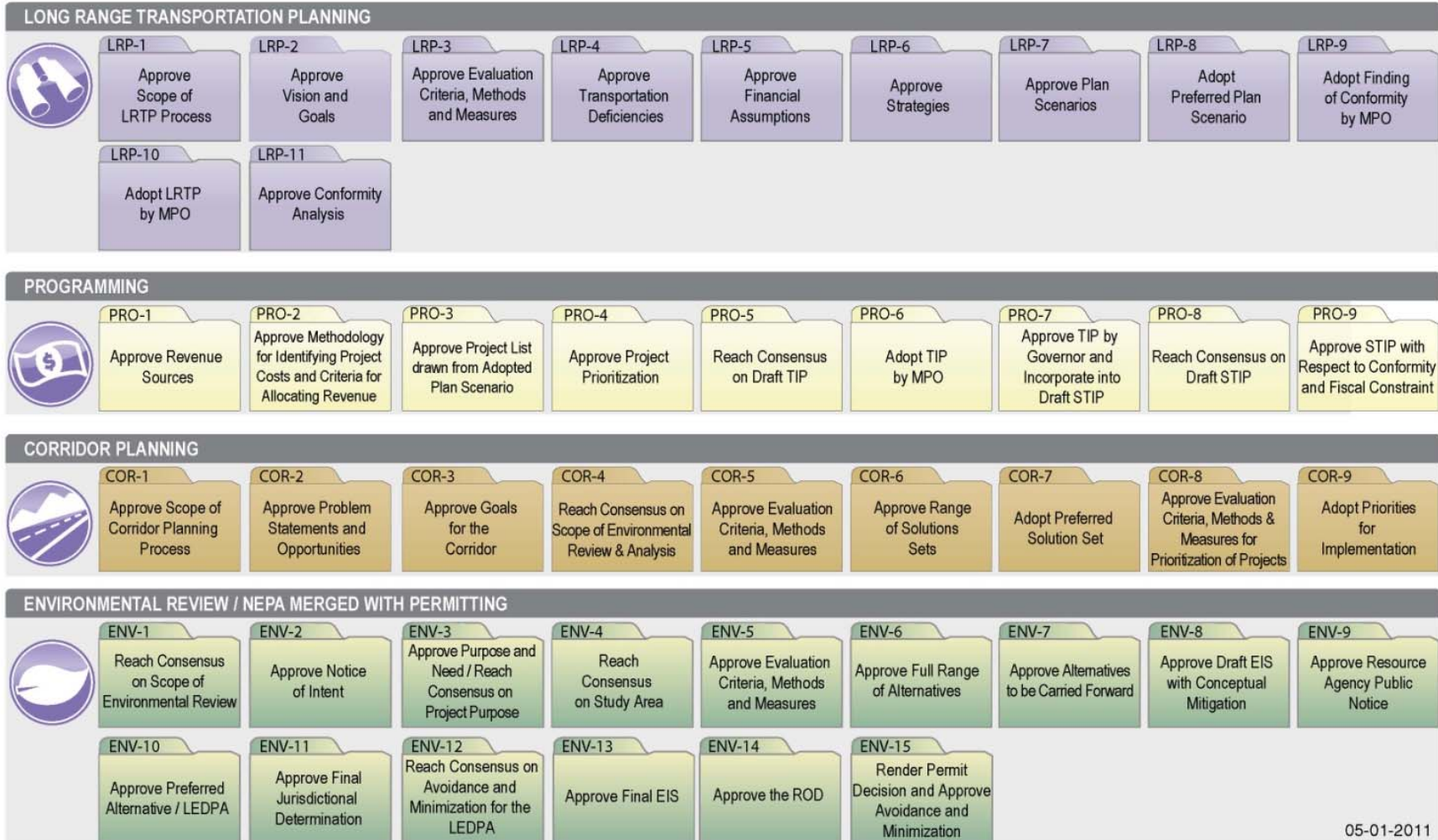
- **The Problem:** How to balance competing interests so that decisions on adding transportation capacity can be made in a timely manner and can be sustained.
- **The Research Objectives:** (1) Develop a system-based, transparent, well-defined framework with supporting information systems for consistently reaching collaborative decisions on transportation capacity enhancements and (2) develop a SHRP 2 research strategy for addressing gaps in supporting information systems

The Decision Guide



- Created as a framework for collaboration in transportation long range and project planning
- Organizes research on collaborative practices and supports in four phases of decision making
 - Long Range Planning
 - Programming (TIP and STIP)
 - Corridor Planning
 - Environmental Review/Permitting

The Decision Guide



Dissemination Challenge

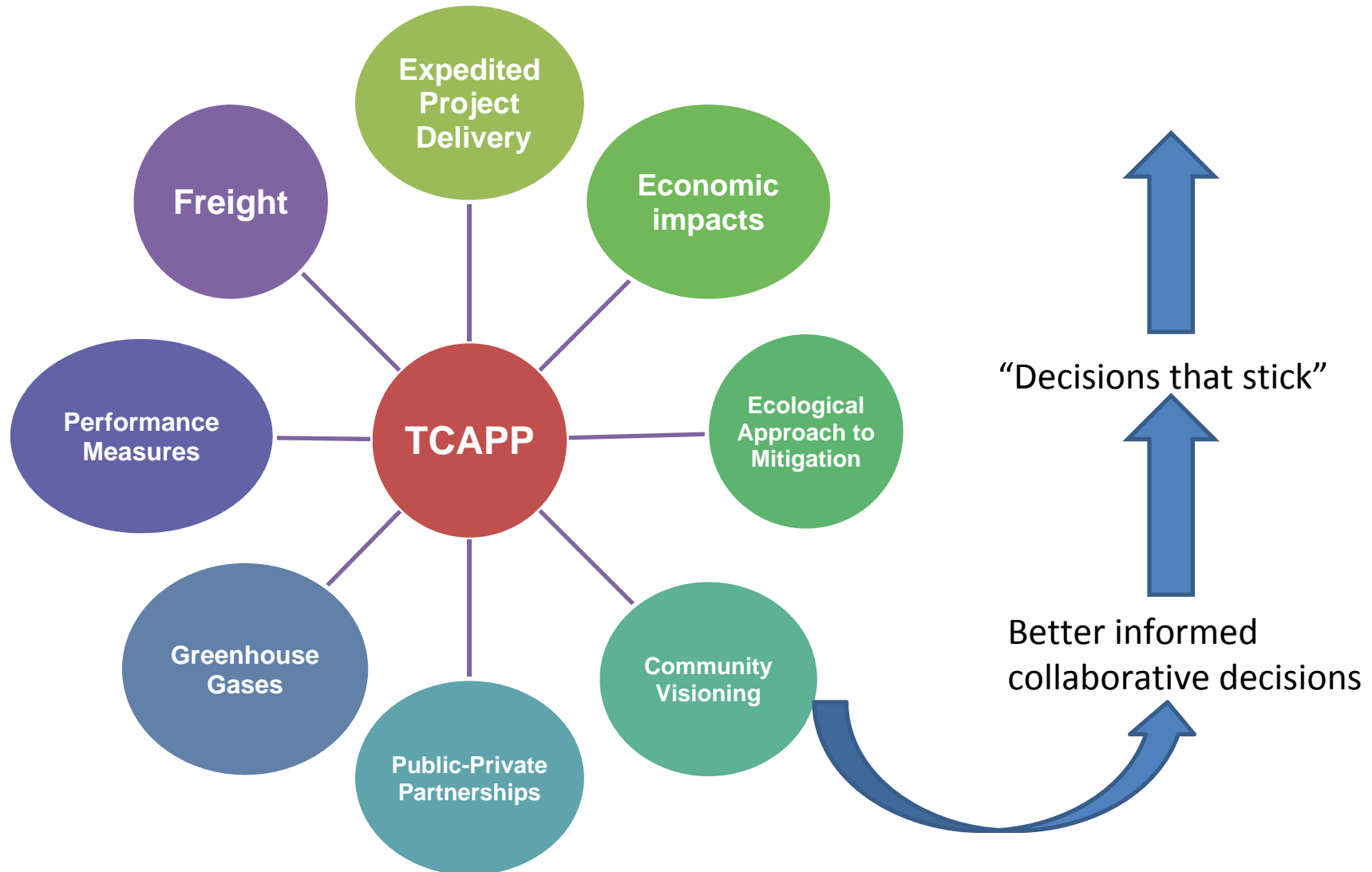
Challenge to make this wealth of information accessible to users:

- There are many paths for projects to follow
- Significant benefit from linking the underlying case studies, library of resources, and external sources to specific key decisions
- Opportunity to link other Capacity Program research related to transportation decision making by mapping it to the Decision Guide

Solution was to create beta test version of an interactive, web-based tool

- *Transportation for Communities – Advancing Projects Through Partnerships (TCAPP)*

TCAPP: Tool for Planning and Project Delivery





PlanWorks

Better planning. Better projects.

The beta version, named TCAPP, is being made more user-friendly and has been rebranded and named PlanWorks