



*Accelerating solutions for highway safety, renewal, reliability,  
and capacity*

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# Capacity Focus Area Overview



# SHRP 2 Origin & Philosophy

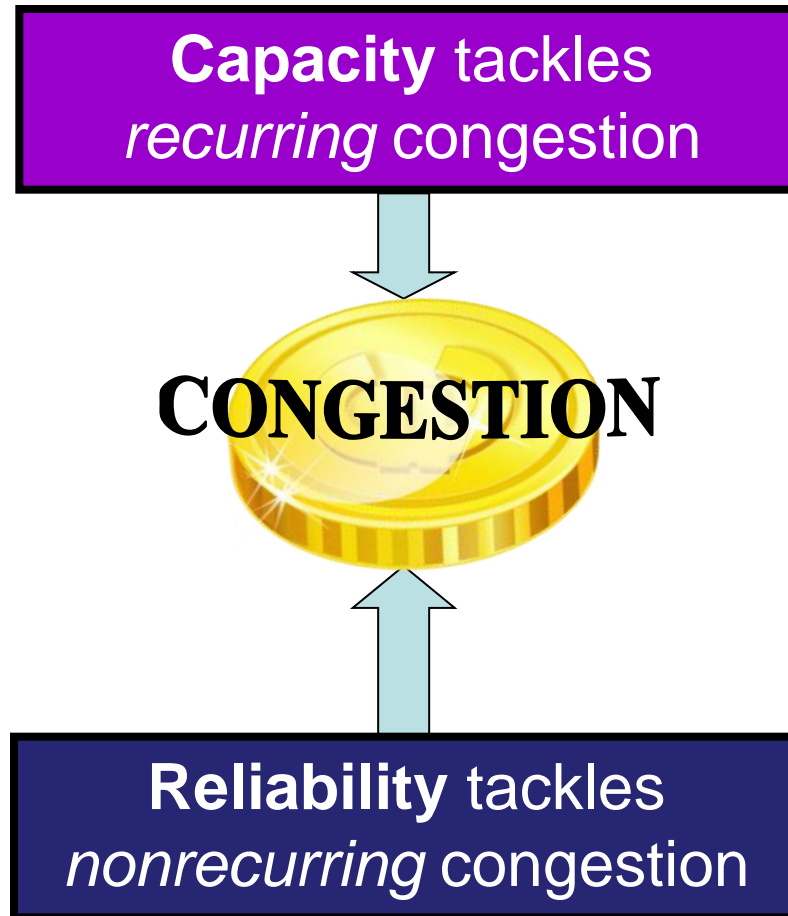
- Needs identified by State DOT and industry leaders—driven by *customer-oriented goals*:
  - Make highways safer: revolutionary change
  - Fix highways: address epidemic of aging infrastructure
  - Reduce congestion: increase physical and operational capacity
- Success requires non-traditional approach:
  - Multiple disciplines
  - Collaboration with non-DOT stakeholders
  - Portfolio: from new knowledge to practical tools to allow existing innovations to be more widely used

# Four Focus Areas

- **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
- **Capacity**: Systematizing collaborative decision making to achieve better, faster project decisions



# Reliability & Capacity





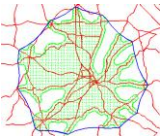
# Capacity Strategic Rationale

- Sometimes you just need more highway
- Why don't we get it when we need it?
  - Multiple independent decision points that must collectively satisfy a range of goals: engineering, economic, environmental, community
  - Decisions can be “lost” or revisited, which can cause opposition and delay
- Facilitate and expedite key decisions: get the right information to the right people at the right time, avoid re-do loops



# Capacity Product Groupings

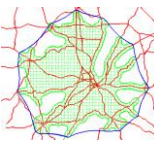
- Group 1: Collaborative Decision Making
- Group 2: Economic Impact Analysis
- Group 3: Integration of Conservation Planning, Highway Planning, and Environmental Review
- Group 4: Advanced Modeling and Networks
- Group 5: Operations to Improve Capacity and Reliability
- Group 6: Freight





# Capacity's Flagship Products

- Transportation for Communities web portal – TCAPP
- Transportation Product Impacts web tool – T-PICS
- Regional Ecological Framework
- Advanced Models and Networks
- Operations Guidebook for Enhancing Highway Capacity
- Freight Data and Models Road Map





# Capacity Research Status

- Overall: Research Phase Finishing, Some Development and Pilot Testing Underway
- Highlights:
  - TCAPP assessment completed
  - TCAPP improvements identified and migration to FHWA underway
  - T-PICS being vetted against recent projects from Minnesota, Iowa, and elsewhere
  - REF geospatial data tool being developed
  - On-line guide to advanced travel demand modeling
  - Operations application added to TCAPP
  - Second freight modeling innovations symposium held earlier this week





# Some MPOs Involved in Developing/ Testing SHRP 2 Capacity Products

- Atlanta (ARC)
- Charlottesville (TJPDC)
- Colorado Springs (PPACG)
- Dallas-Fort Worth (NCTCOG)
- Jacksonville (FCMPO)
- Los Angeles (SCAG)
- Olympia(Thurston RPC)
- Portland (Metro)
- Sacramento (SACOG)
- San Diego (SANDAG)
- Seattle (PSRC)
- St. Louis (E-W Gateway)