

# Fulfilling Mandates – Empowering Organizations

The Lessons Learned from Operation of the Managing Assets for Transportation Systems (MATS)

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# Agenda

- Focus of Asset Management?
- Sustainability & Versatility
- Overview of MATS System
- Resulting Benefits
- Tenants of Success

# Focus of Asset Management?

## Fulfilling Mandates or Empowering Organizations?

- **Federal Mandates**

- MAP-21, FTA-SGR, FHWA-NBI, Environmental Verification
- Commonly linked to funding avenues

- **State & Local Governmental Focus**

- Improve transparency of activities and funding needs
- Focused case studies

- **Technical Perspective**

- Clearly define operation & maintenance needs
- Match efforts to technical needs
- Operational Management (Maintenance, Parts/Inventory, Cost, Risk, Planning)



U.S. Department of Transportation  
**Federal Highway Administration**  
**Federal Transit Administration**



Each Perspective Has a Direct Impact on Optimal Approach

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**Established**



**Customized Solution**

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Select the Solution for the Specific Need, Not Just Any Solution

# Sustainability and Versatility

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# Overview of MATS

## Managing Assets for Transportation Systems (MATS)

- DOT Integrated Maintenance and Asset Management System
- Web & Windows-Based Interfaces with SQL and Oracle Databases
- Jointly Developed and Independently Administered by the Tri-State Partnership:



- Functionality

- Ground up (vs. Top Down)
- Daily Work Reporting
- Contractor Reporting
- Stockpiles

- Rental Management
- Fleet Management
- Planning & Budgeting
- Scheduling, etc.

- GIS Interfaces
- Incident Reporting
- Asset Condition
- Inventory Model



- Assets:

- Bridges
- Buildings
- Equipment (internal, external)

- Financials
- ITS infrastructure
- Materials (inventory, usage)
- Mowing, snow-removal

- Roads
- Safety equipment
- Traffic control devices
- Staffing (internal, external)

# Overview of MATS

## Managing Assets for Transportation Systems (MATS)

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- Started in 1995
- MS NT, SQL 4/7



- Started in 2000
- MS NT, Oracle 6



- Started in 2002
- MS NT, Oracle 10

Windows Server 2012, SQL 2012 & Oracle 12

- Leveraged to fill Vermont 511 void
- Integrated payroll rules directly into MATS
- Annual planning, comparison & analysis

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Clearly document the efforts (labor, equipment & material) expended to maintain each DOT system.

8 million Daily Work Requests

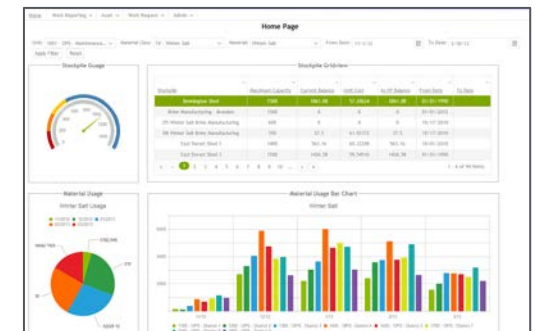
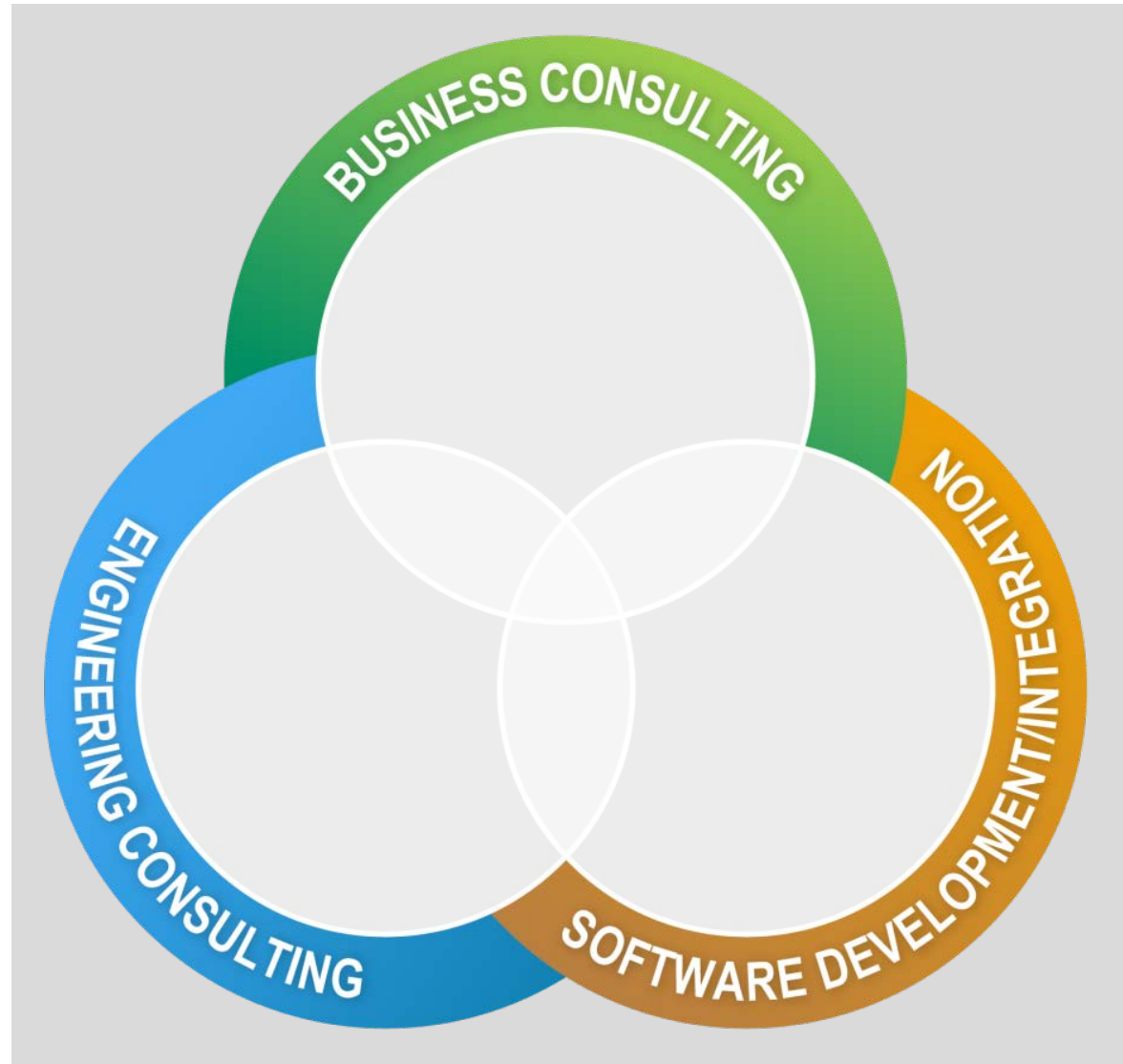
\$4 billion of tracked work

~\$1 billion of third party reimbursements



# Foundation for Sustainability & Success

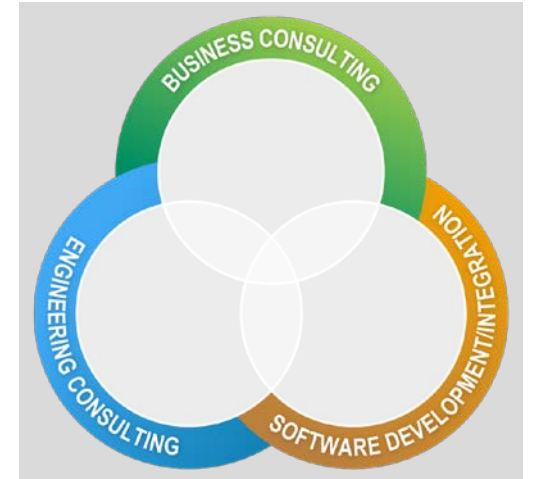
## Managing Assets for Transportation Systems (MATS)



# Foundation for Success

## Managing Assets for Transportation Systems (MATS)

- Efforts are Focused
- Licensing is Clear
- Improvements are Shared
- Integration is Deep
- Integrated Business Process
- Broader Definition of Assets
- Collaborative Commitment



# Foundation for Success

## Managing Assets for Transportation Systems (MATS)

- **Efforts are Focused**

- MATS improvements are delivered through task-order based approach
- Each task leverages business consulting, engineering consulting, asset management

- **Licensing is Clear**

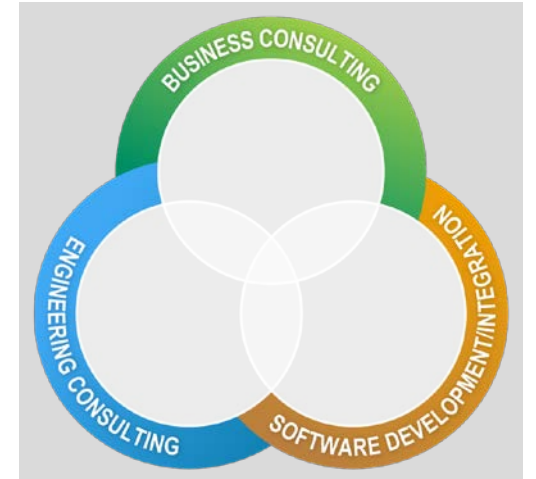
- The Tri-State Partnership has a non-transferable ownership license for MATS.
- All associated data is owned and controlled by the Tri-State partnership

- **Improvements are Shared**

- Incremental improvements made by one partner is shared with other partners
- Inter-partner coordination to advance the system

- **Integration is Deep**

- MATS and MATS data is directly integrated into a broad range of systems (GIS, payroll, contracting, budgeting, inventory, etc.)
- Data collected at the source and delivered directly to broad usage cases
- Integrated data collection and maximum data usage/impact



# Foundation for Success

## Managing Assets for Transportation Systems (MATS)

- **Integrated Business Process**

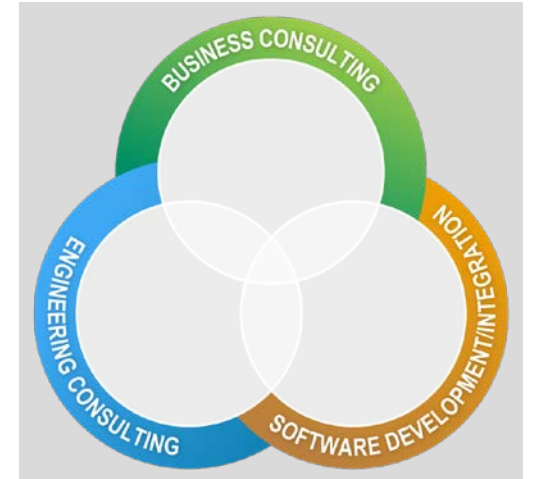
- Addresses/digitizes specific business process
- Integrated checks and balances
- Simplification of effort

- **Broader Definition of Assets**

- Broadly defining assets to include:
  - Internal/external staff (technical & IT staff)
  - Asset management system
- Sustainably operate all assets

- **Collaborative Commitment**

- Commitment by both the Agency and the consultant to support development, deployment and maintenance



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