

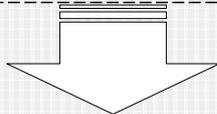
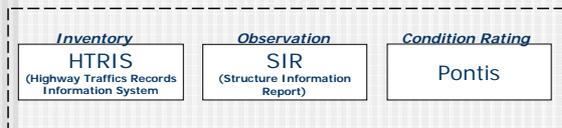
OWNER INITIATED MODERNIZATION OF BRIDGE SAFETY INSPECTIONS

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Bridge Inventory Management

- Owner Initiated Goal
 - Transform from a paper-based inspection process to a mobile computer assisted process.
- What's at stake
 - Internationally annual bridge management costs are estimated in the billions.
 - 1 hr/bridge time savings could annually yield:
 - 5 additional inspectors, or
 - 1000 additional inspections, or
 - \$300,000 savings

Bridge Information Data



Used to make bridge/structure maintenance, rehabilitation, and replacement decisions

Information Fragmentation

Information Type	HTRIS	Pontis	SIR
Text commentary			x
Graphical data (sketches)			x
Photographs			x
Geometrical data	x		
Condition ratings	x	x	
Inspection frequencies	x	x	
Element conditions		x	
Maintain & improvement cost		x	

Where management gets what they need for MR&R decisions

Process Transformation

VDOT BSD
Bridge & Structures

Operations



VTRC
Virginia Transportation
Research Council

Research



Whose best positioned to lead research?

Proposal Fragmentation

Proposal 1

1. Research work processes
2. Define optimum user needs
3. Develop process improvement strategies
4. Propose specific hardware/software solutions
5. Implement prototype trials
6. Develop implementation procedures
7. Measure and assess

Rejected by Operations

Proposal 2

4. Propose specific hardware/software solutions

Rejected by Research

Proposal 3

1. Research work processes

Accepted

Who's on First?

■ Recommendations

1. Inspection procedural adjustments,
2. Standardize upstream/downstream information flows,
3. Facilitator led transformation workshops,
4. Investigate three proposed strategies,
5. Create pilot program,
6. Present pilot results.

■ Actions

1. Operations ignored the research,
2. Proceeded with hardware first solution,
3. Quick and fast,
4. Wrong hardware solution,
5. Problems,
6. **Failure**

Predictable Outcome...

- Hardware changes do not fundamentally alter operational procedures.
- Organizational structures can hinder process changes.

Leadership roles...

- End users (operations) should drive the research agenda
- Research should drive the investigation
- Each should "buy-in."

