

ITS Sketch Plans

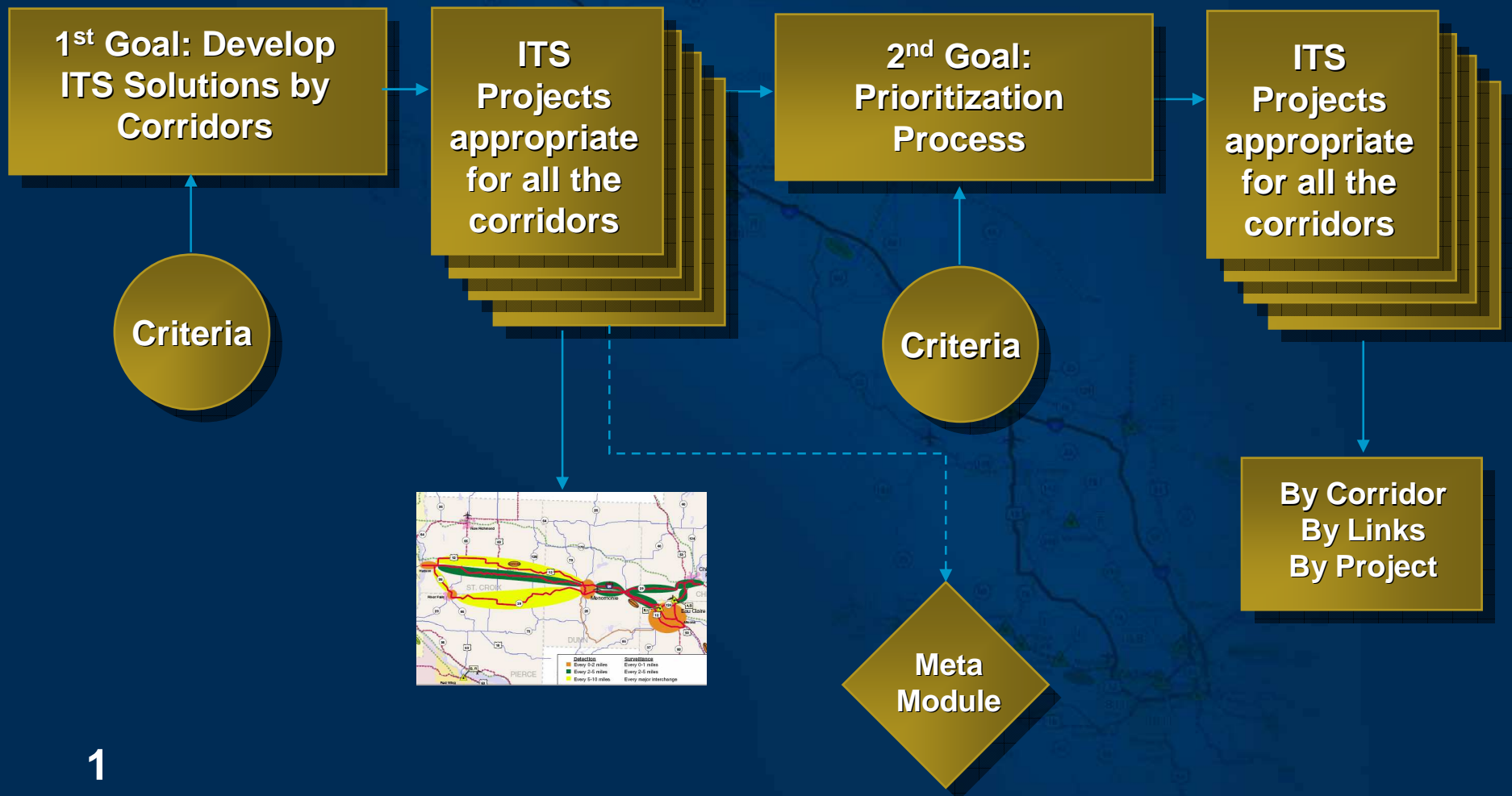
Draft Corridor Sketch Plan Methodology - Discussion

presented to
Wisconsin Department of Transportation

presented by
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12/8/06

2 Goals – 2 Methodologies



*Outside of Corridor
Management
Workgroup*

**Identify
Statewide Significant Corridors
(Connections 2030, SAMP)**



**Identify
Region Priority Management Corridors for further
developing a Corridor Management Vision
(Quantitative and Qualitative)**



Develop a Corridor Management Vision

In creation of a vision, the same “factors” are used, however
Region Information will account for more details and
regional/local issues. Community involvement would be part of
this step.



**Identify and select Strategies and Tools to
achieve the Corridor Management Vision**

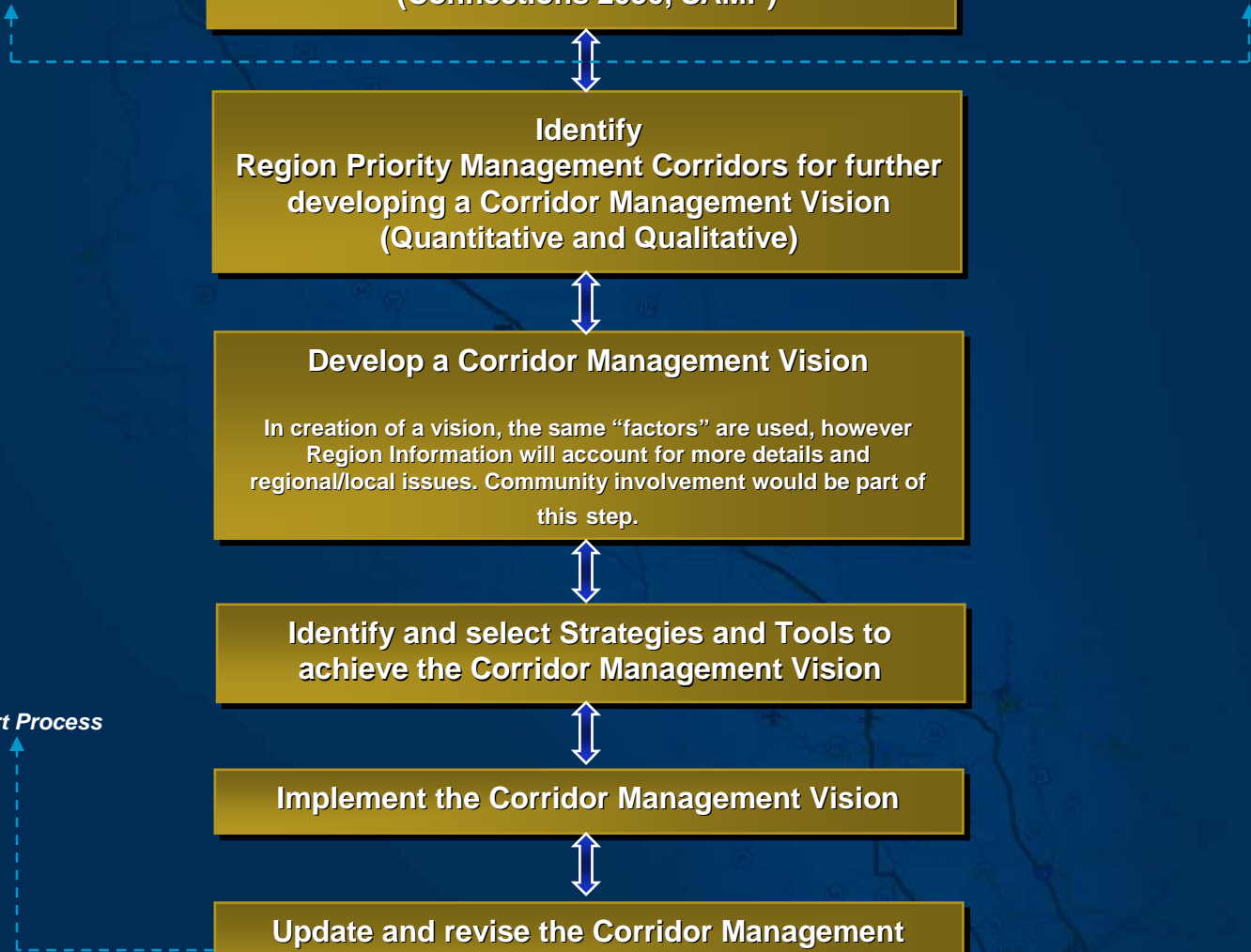


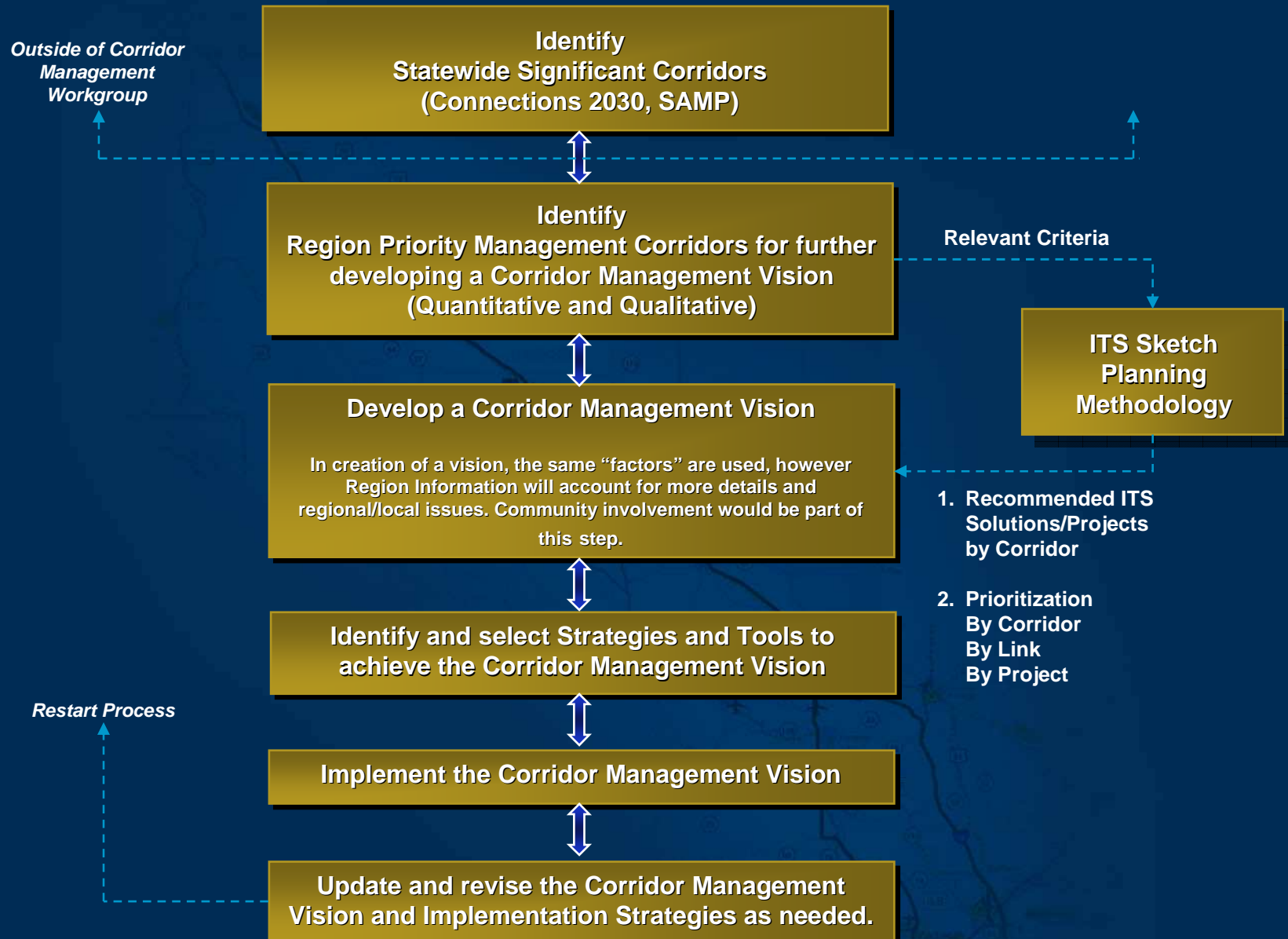
Implement the Corridor Management Vision

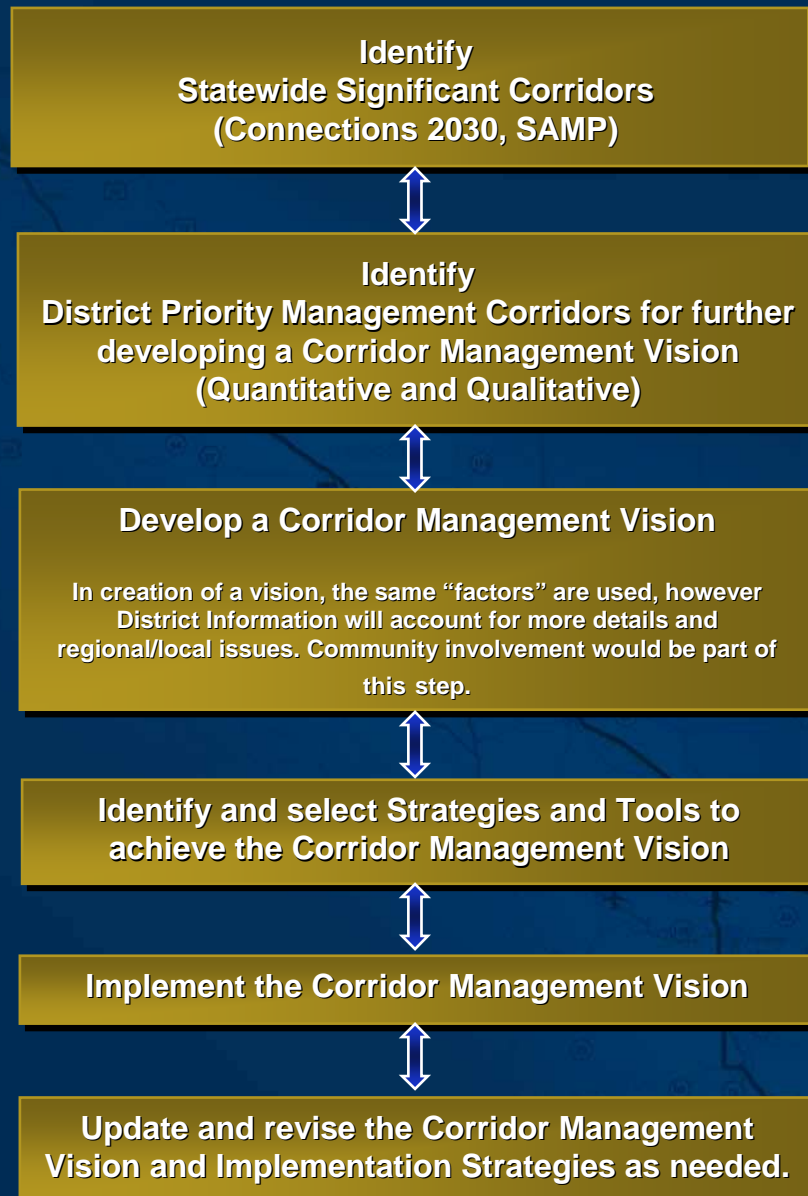


**Update and revise the Corridor Management
Vision and Implementation Strategies as needed.**

Restart Process







**Identify
Statewide Significant Corridors
(Connections 2030, SAMP)**



**Identify
District Priority Management Corridors for further
developing a Corridor Management Vision
(Quantitative and Qualitative)**



**Integration of operations into
corridor planning begins at this
phase.**



Develop a Corridor Management Vision

In creation of a vision, the same “factors” are used, however
District Information will account for more details and
regional/local issues. Community involvement would be part of
this step.



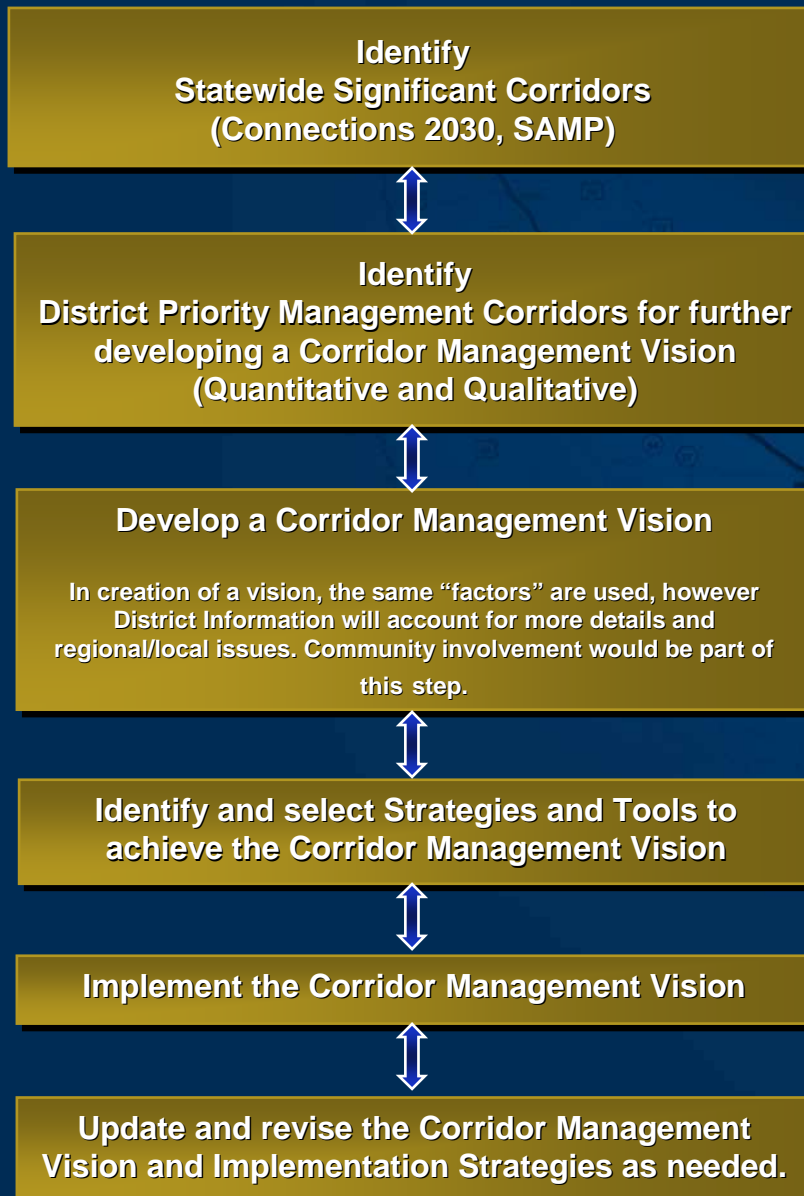
**Identify and select Strategies and Tools to
achieve the Corridor Management Vision**



Implement the Corridor Management Vision



**Update and revise the Corridor Management
Vision and Implementation Strategies as needed.**



Stage One Factors (Quantitative)

Mobility	50%
Functional Class/Corridor 2020 Designation	15%
Year 2030 LOS	20%
Truck ADT	10%
Recreation Factor Group	5%
Safety	20%
Crash Rate	10%
Crash Severity	10%
Development Pressure	30%
Population Projections by CVT to 2020	15%
Land Conversion Rate by CVT from Ag/Vacant to Residential, Commercial, Manufacturing, 1990-2000	15%

Draft Corridor Sketch Plan Methodology

Add Additional Operational Factors at Priority Corridor Identification Phase

- ***Mobility***

Functional Class (*)	Change In Hours Of Delay
Recreation Factor Group (*)	Change In Number Of Major Incidents
Year 2030 LOS	Travel Time Variability
Change In Average Peak Speed	Travel Time Change Between O-D Pairs
Travel Time Change On Roadway Segments	

7 (*) *already included in Corridor Planning Methodology*

Draft Corridor Sketch Plan Methodology

Add Additional Operational Factors at Priority Corridor Identification Phase

- **Safety**

Crash Rates(*)

Crash Severity(*)

Crash Pattern/Hot Spots

- Intersections
- Geometric
- Weather
- Animal

8 (*) *already included in Corridor Planning Methodology*

Draft Corridor Sketch Plan Methodology

Integration of operations into corridor planning requires:

- **Linkages between problems/issues and operational solutions**
- **Thresholds for establishing a problem exists**
- **Criteria for evaluating effectiveness of solutions**
- **Methods and tools for analysis of solutions**

WISDOT ITS Corridor Analysis

Quantitative Factors and Thresholds

Identify District Priority
Management Corridors

Stage One Factors (Quantitative)

Mobility

- Function Class (*)
- Recreation Factor Group (*)
- Year 2030 LOS
- Change in Travel Time
 - ✓ Average Speed Peak
 - ✓ OD Pairs
 - ✓ Roadway Segments
- Reliability
 - ✓ Hours of Delay (Change)
 - ✓ Major Incidents
 - ✓ Travel Time Variability

Safety Measures

- Crash Rates (*)
- Crash Severity (*)
- Crash Patterns/Hot Spots
 - ✓ Intersectors
 - ✓ Geometric
 - ✓ Weather
 - ✓ Animal

Environmental

- Air Quality

Thresholds (Example)

25% Above Statewide Average

'D' or Worse

10% Reduction or More

15% Over Statewide Average
(per mile)

Injury and Fatal/VMT > 10% Over
Statewide Range

Crash Rate Above Average and
Deficiency Identified

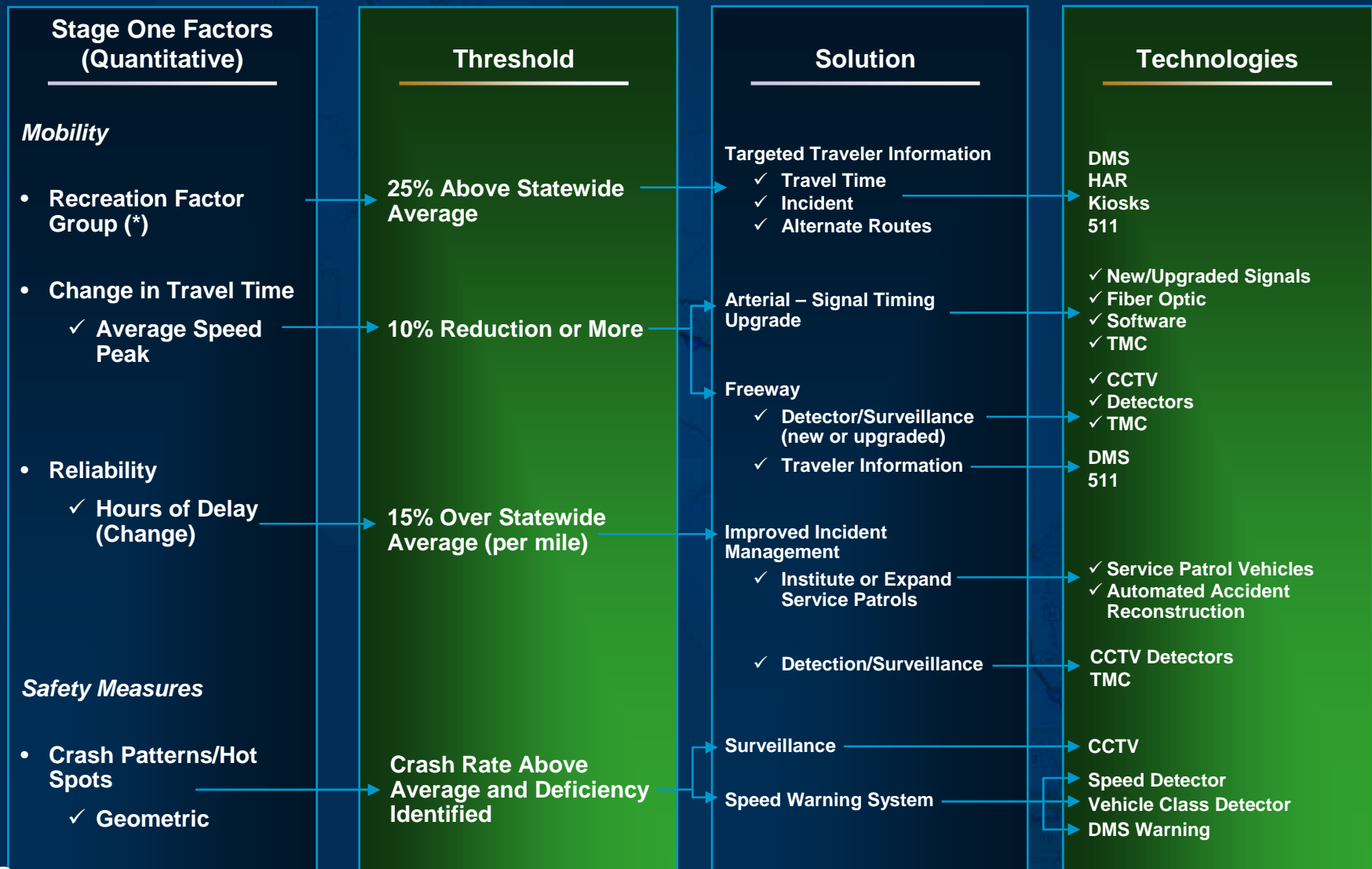
Draft Corridor Sketch Plan Methodology

Integration of operations into corridor planning requires:

- Alternative solutions be identified that can be tailored to resources available
- Technologies can be identified to implement solutions
- Statewide standards for operational alternatives be disseminated to regional personnel responsible for implementation and operation

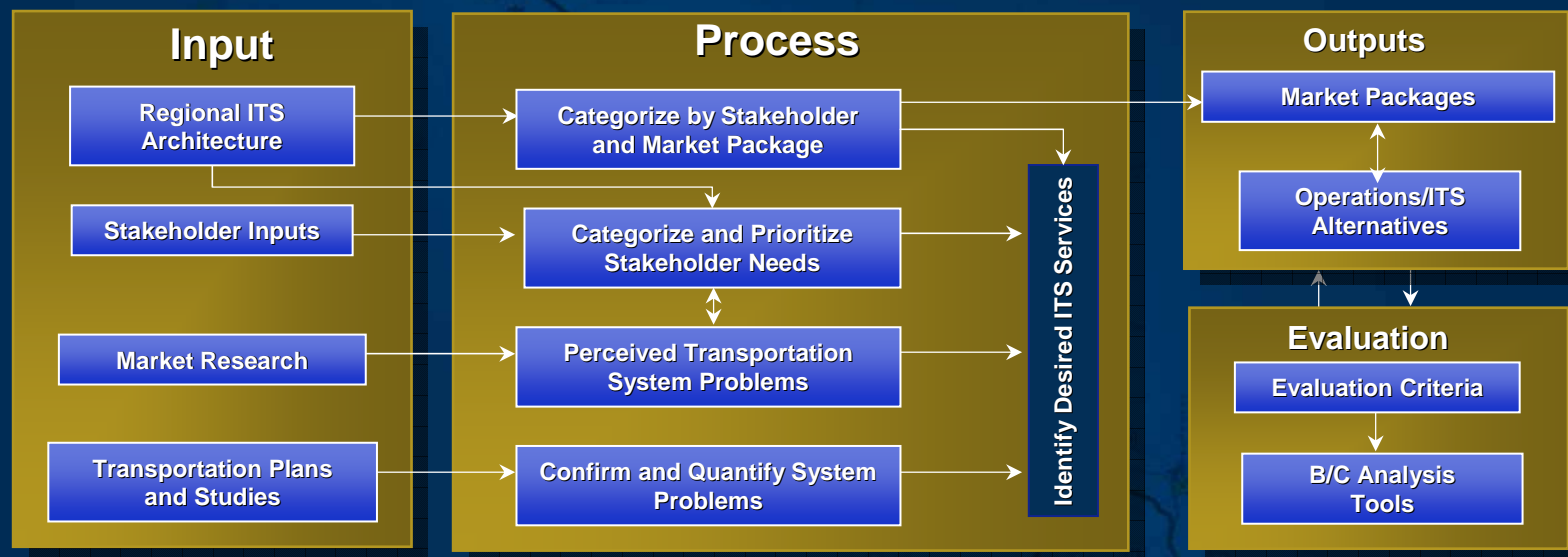
WISDOT ITS Corridor Analysis

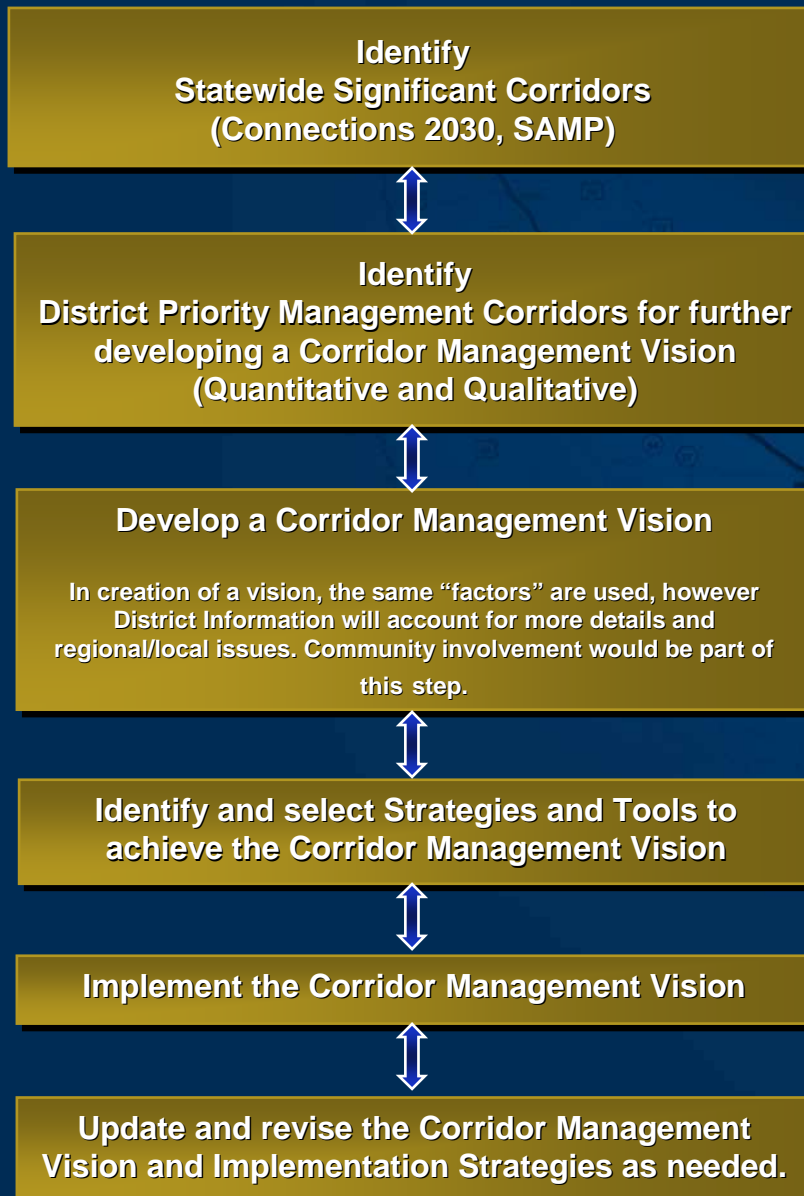
Analysis Process



WISDOT ITS Corridor Analysis

Analysis Process for Operational Alternatives





Integration of operations into corridor planning requires:

- Stakeholder feedback, Statewide Operations Plan and quantitative analysis are key inputs
- Analytical tools and methods can vary depending on complexity of solution and data available
- Evaluation outputs are the same as those for capital projects and feed back to: