Guide to 21st Century Planning at State Departments of Transportation

September 7, 2016
Today’s Presenters

• Moderator
  Brian J. Smith, AICP

• 21st Century Planning Guide Overview
  Janet D’Ignazio, ICF international

• The 21st Century Planner
  Tim Henkel, Minnesota Department of Transportation

• Accountability for 21st Century Agencies
  Patricia Hendren, I-95 Coalition
NCHRP is...

A state-driven national program

• The state DOTs, through AASHTO’s Standing Committee on Research...
  - Are core sponsors of NCHRP
  - Suggest research topics and select final projects
  - Help select investigators and guide their work through oversight panels
NCHRP delivers...

**Practical, ready-to-use results**

- Applied research aimed at state DOT practitioners
- Often become AASHTO standards, specifications, guides, manuals
- Can be directly applied across the spectrum of highway concerns: planning, design, construction, operation, maintenance, safety
A range of approaches and products

- Traditional NCHRP reports
- Syntheses of highway practice
- IDEA Program
- Domestic Scan Program
- Quick-Response Research for AASHTO
- Other products to foster implementation:
  - Research Results Digests
  - Legal Research Digests
  - Web-Only Documents and CD-ROMs
NCHRP Webinar Series

• Part of TRB’s larger webinar program
• Opportunity to interact with investigators and apply research findings.
Evolution of a strategic idea

- 21st Century Planning Guide started in discussions of AASHTO’s Standing Committee on Planning in updating its Strategic Plan
- Suggested as a quick response project, upgraded to a full NCHRP project
- Assembled an eminently qualified panel/consultant team, extensive stakeholder outreach during the project
Today’s First Presenter

- 21st Century Planning Guide Overview
  Janet D’Ignazio, ICF international
21ST Century Planning at State DOTs

NCHRP REPORT 798
Panel Participants

- Brian Smith, AICP Consultant
- Janet D’Ignazio, ICF International
- Tim Henkel, Minnesota Department of Transportation
- Patricia Hendren, I-95 Coalition
What is in the 21st Century Planning Guide?

Executive Summary
Chapter 1: Introduction
Chapter 2: Why is planning important to the State DOT
Chapter 3: What drives transportation change
Chapter 4: Characteristics of effective planning and planners in the 21st century
Chapter 5: Integrating planning into strategic decision-making
Chapter 6: The 21st century planning readiness self-assessment and roadmap
Chapter 7: Implementation
Appendices
What are Strategic Decisions?

1: Aligning DOT and Statewide Goals, Priorities, and Performance
2: Agency Visioning and Goal Setting
3: Identifying Performance Outcomes
4: Defining State, Regional, and Local Roles
5: Internally Integrated Planning
6: Externally Integrated Planning
7: Revenue and Financial Planning
8: Investment Strategy Resource Allocation
9: Linking Performance Measures to Outcomes
10: Program-Level Resource Allocation
11: Aligning Project-Level Decision-making
12: Feedback—Monitoring and Reporting Agency Performance
What does the Guide provide about each strategic decision?

- What is different?
- Introduction
- Process changes may be needed
- Supporting elements or resources needed
- Internal and external relationships and stakeholders involved
- Challenges that must be overcome or managed
Strategic Decision 2: Agency Visioning and Goal Setting

What is different?

- Be “futurists”
- Understand the overarching goals and vision
- Provide data-driven information and analyses to help decision makers evaluate the complementary and competing trade-offs
- Look for new data sources and organize this data into meaningful and succinct information
- Become proficient in a range of traditional and new communication techniques and technologies in order to maximize opportunities to collaborate
Strategic Decision 2: Agency Visioning and Goal Setting

Introduction

- Describes what is important to executive decision makers
- How planners can or should support executive level decision making
Strategic Decision 2: Agency Visioning and Goal Setting

Processes Needed

- Inclusive and transparent outreach
- Collaborative performance based goal, objective and target setting
- Scenario testing process that:
  - Identifies societal and technological trends that will impact transportation
  - Broad range of desired local, state and national outcomes
- Identifies, analyzes and communicates relevant data that can help:
  - Differentiate and identify trade-offs among potential “futures”
  - Potential revenue and revenue generating options
Strategic Decision 2: Agency Visioning and Goal Setting

Supports and Resources

- Access to information about emerging societal and industry trends and their impact on transportation
- Access to new or improved data-sources and the tools to translate this data into meaningful and succinct information
- Time and resources to support consensus building scenario testing approaches
Strategic Decision 2: Agency Visioning and Goal Setting

Relationship and Stakeholders

- Transportation planning partners, stakeholders, and the public
- Employees of the DOT and its decision-making partners
- Statewide political and agency leadership
- Public and private sector multimodal transportation owners
Strategic Decision 2: Agency Visioning and Goal Setting

Challenges

- Time and resources
  - To become the agency’s futurists
  - For expanded outreach and collaboration
  - For new data and analysis tools
- Establishing the strong technical, policy and decision making foundation needed to support performance based planning and programming
- Adapting the vision and goals to fiscal realities
- Staff turnover and the ability to hire experienced and qualified staff
## Strategic Decision 2: Agency Visioning and Goal Setting

### Assessment Questions

<table>
<thead>
<tr>
<th>Assessment Questions</th>
<th>Not at all</th>
<th>To some extent</th>
<th>Extensively</th>
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<tbody>
<tr>
<td>Does your DOT have multiple documents and/or processes that establish strategic</td>
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<td>direction? If so, are the key elements (goals, objectives and performance measures) aligned?</td>
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<td>How familiar are you with the full range of state and local strategic documents</td>
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<td>that should influence your DOT's strategic direction and planning processes? Are these integrated into your LRTP?</td>
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<td>Do you have strategic-level visioning tools and, if so, how effective are they?</td>
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<td>How well are your long-range, mid-range, and short-term planning and programming</td>
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<td>processes connected?</td>
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<tr>
<td>How well do your planning processes consider non-improvement needs such as asset</td>
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<td>management and operations?</td>
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<td>How well are performance measures integrated into department-wide decision-making?</td>
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What other information does the Guide have?

- Change Organizational Silos
- Risk Assessment and Risk Mitigation
- Data
- Planner Skills and Competencies
Integrating Planning into Strategic Decision Making

Patricia Hendren, I-95 Coalition
What is planning?

Planning provides the factual, analytical, and collaborative basis for reaching decisions to improve multimodal transportation system performance. Effective planning results in cost-effective, cooperative, and responsive transportation solutions that achieve desired societal outcomes by balancing costs and benefits to communities, the economy, and the environment.
Great Definition
Planning provides the factual, analytical, and collaborative basis for reaching decisions to improve multimodal transportation system performance. Effective planning results in cost-effective, cooperative, and responsive transportation solutions that achieve desired societal outcomes by balancing costs and benefits to communities, the economy, and the environment.

Great Quote
“Planning provides a state DOT with the skills to define a consensus-based, collaborative, long-term vision for transportation reflecting the perspectives of both internal [staff] and external stakeholders.”

Make the future better.
The Guide outlines **HOW** planners can make the future better

- Talk about things people care about
  (e.g., Strategic Decision #3, #9)

- Link resource allocation to planning
  (e.g., Strategic Decision #11)

- Act on the results
  (e.g., Strategic Decision #12)

- Be an effective communicator
  (across the entire Guidebook)
Talk about things people care about
(Strategic Decision #3, #9)

Pg. 29: State DOTs are no longer just held accountable for the transportation system, but also for how the system supports and improves the way of life for communities.

Example #2:
WMATA Travel Time

Example #3: Colorado DOT
Link resource allocation to planning
(strategic decision #11)

Pg. 61: Project level decision-making is the follow through on aligning overall goals, objectives and targets and implementing performance based monitoring and accountability.

Example #1: Minnesota DOT 20 Year State Highway Plan

YES: Across modes

YES: Across strategies
(new construction vs. operational improvement)

“IT may seem that using universal programming criteria could put certain projects at a disadvantage. However, working in conjunction with our MPO, we found it was a useful tool. By applying universal programming criteria, we have been able to more effectively demonstrate a project’s need and benefit to the region.”

- Zoe Robertson, Southeastern Pennsylvania Transportation Authority
Example # 2: Missouri DOT

Situation: Funding Shortfall

Mowing/trimming along highways
Example # 2: Missouri DOT

- Reduction of mowing from four to three times a year
- $2.5M savings per year (reallocated)
- No change in customer satisfaction
Act on the Results
(Strategic Decision #12)

State DOTs will be expected to quickly respond and incorporate feedback into its decisions and make mid-course adjustments as needed to meet performance outcomes.

“Embrace the power of “why”—Focusing on the why clearly communicates that performance management intends to understand the results and identify improvements, not to punish.”

Source: “Moving from Reactive to Strategic Decisions Making.” TR News 293 July-August 2014

“A performance-based approach shifts the focus off of “can we deliver the project on budget” to “are we doing the right set of projects. Monitoring and adjustment processes are key to picking the right set of projects year after year.”

— Greg Slater, Maryland State Highway Administration
Act on the Results (Continued)

Example #1: RTC of Southern Nevada FAST Dashboard

Example #2: Rhode Island installation of Snowplow Equipment

Example #3: Tracking WMATA's Escalator Preventive Maintenance

45% in 2010
64% in 2011
91% in 2015
Be an effective communicator
(Across entire Guidebook)

- Make your case using data
- Commit to regular reporting
- Don’t forget data quality is key
- Analysis, analysis, analysis
- Spend time on that “picture”
How much is an awesome graph worth?

Napoleon’s March to Moscow - The War of 1812
Make time for ANALYSIS and “PICUTRE”

The Steps

Database
Input
Output
Analysis
Presentation

Where the Time Goes

Database
Input
Output
Analysis
Presentation

Where the Money Goes

Database
Input
Output
Analysis
Presentation

What is Important

Database
Input
Output
Analysis
Presentation
Why to we care about integrating planning into decision making?

- Base decisions on data: defensible, repeatable, clear (transparency)
- Articulate the benefits of positive investment
- Make case for $
- Demonstrate how we are being good stewards of public funds (accountability)
- HARDEST: help each employee see their role in agency outcomes

Make the future better.
The 21st Century Planner
Tim Henkel, Minnesota Department of Transportation
What is planning?

Planning provides the factual, analytical, and collaborative basis for reaching decisions to improve multimodal transportation system performance. Effective planning results in cost-effective, cooperative, and responsive transportation solutions that achieve desired societal outcomes by balancing costs and benefits to communities, the economy, and the environment.
Why is 21st century planning important?

- Higher public expectations
- Changing missions of DOTs
- Shared mission/partner and customer focus
- Performance driven decision making
- Focus on outcomes and accountability
- Greater need for communication and collaboration
What are the characteristics of the 21st century planner?

- Multi-modal, multi-disciplinary
- Creative
- Consensus oriented
- Technologically savvy
- Skilled in using new data sources, data collection and analytical techniques
- Skilled listeners, facilitators and communicators
- Decision and outcome focused
What skills and competencies do they need?

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<thead>
<tr>
<th>Current</th>
<th>Enhanced for the 21st century</th>
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<tr>
<td>Visioning and strategic thinking</td>
<td>External awareness</td>
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<td>Fostering collaborative relationships</td>
<td>Decision making acuity</td>
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<tr>
<td>Communication</td>
<td>Change readiness</td>
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<tr>
<td>Leading people</td>
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<td>Analysis and problem solving</td>
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<tr>
<td>Specialized transportation planning expertise</td>
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<td>Transportation industry awareness</td>
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How can we recruit planners ready for the 21st century?

- Implement employee mentoring programs
- Implement a rewards program for high performers
- Create advancement within positions
- Recruit non-traditional applicants
- Provide realistic job preview
- Utilize social networking for recruitment
Questions