

The background image shows a city street scene. In the foreground, a white trolley with "NFTA-METRO" branding is visible. The street is lined with buildings, including a prominent one with a dome. A street sign for "SHEA" and "W St" is visible on the left. The overall scene is in black and white with a blue tint.

# Tailoring Federal Transportation Planning Requirements & Products To Meet Your Region's Needs

2019 AMPO Planning Tools & Training Symposium

Richard Perrin, AICP

**TY·LIN** INTERNATIONAL

engineers | planners | scientists

May 7, 2019

# Agenda

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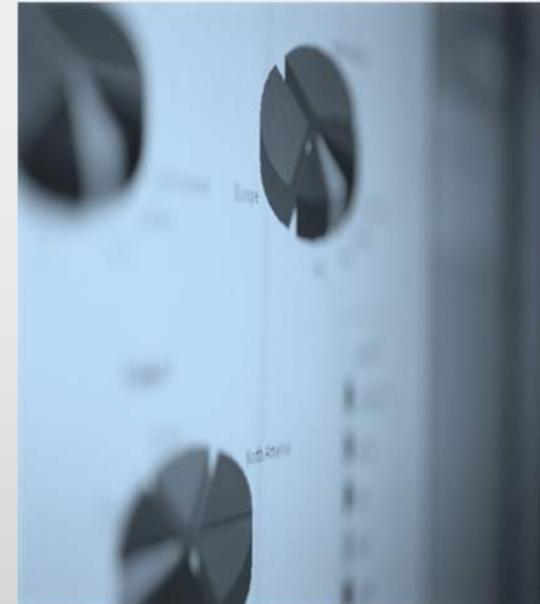
- ▶ Purpose: Why we're here
- ▶ Introductions: Who you are and what you want to get out of today
- ▶ Federal Planning Requirements: What they are & what they mean
- ▶ Going Forward: How we can think differently
- ▶ Evolution: Future of MPOs
- ▶ Closing Thoughts: What are the next steps for you



# Purpose

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- ▶ To provide a pragmatic approach for developing metropolitan/long range plans and transportation improvement programs so that federally-required MPO processes and activities most effectively address regional opportunities and issues.
- ▶ What we will be doing
  - ▶ Reviewing Federal requirements *in practice*
  - ▶ Discussing your individual situation
- ▶ What we won't be doing
  - ▶ Conducting role-playing exercises
  - ▶ Using specific MPOs as examples



# Introductions

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- ▶ Name
- ▶ MPO
- ▶ What You Do There
- ▶ How Long You've Been at the MPO
- ▶ What You Did Before (if anything)
- ▶ What You Most Want to Get Out of Today

# Introductions

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- ▶ Richard Perrin, AICP
- ▶ T.Y. Lin International
- ▶ Director of Planning Services
- ▶ 12 Years as an MPO Executive Director
- ▶ Program Manager at MPO & Regional Planning Council
- ▶ How to make our time together most useful to you

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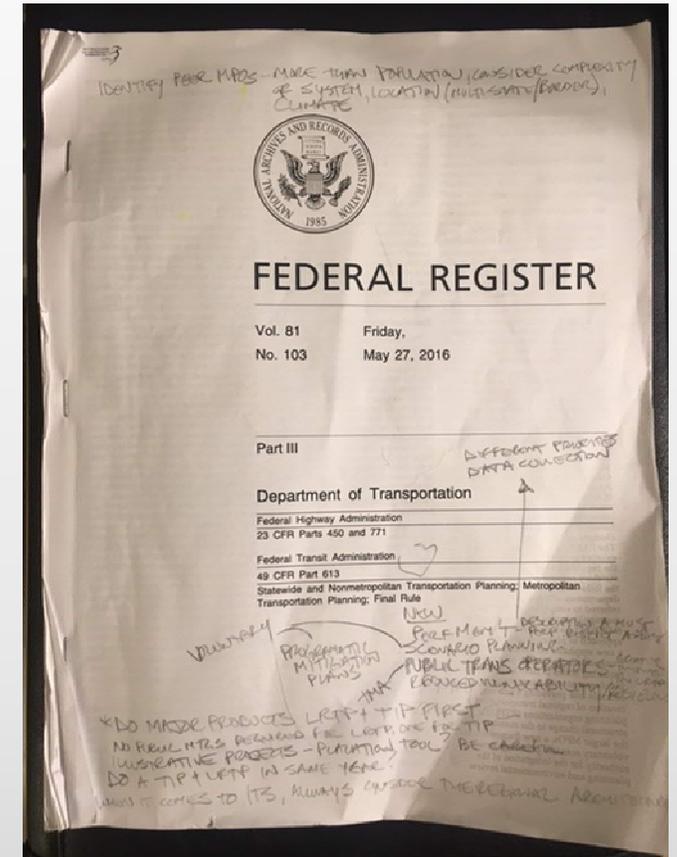
# Introductions

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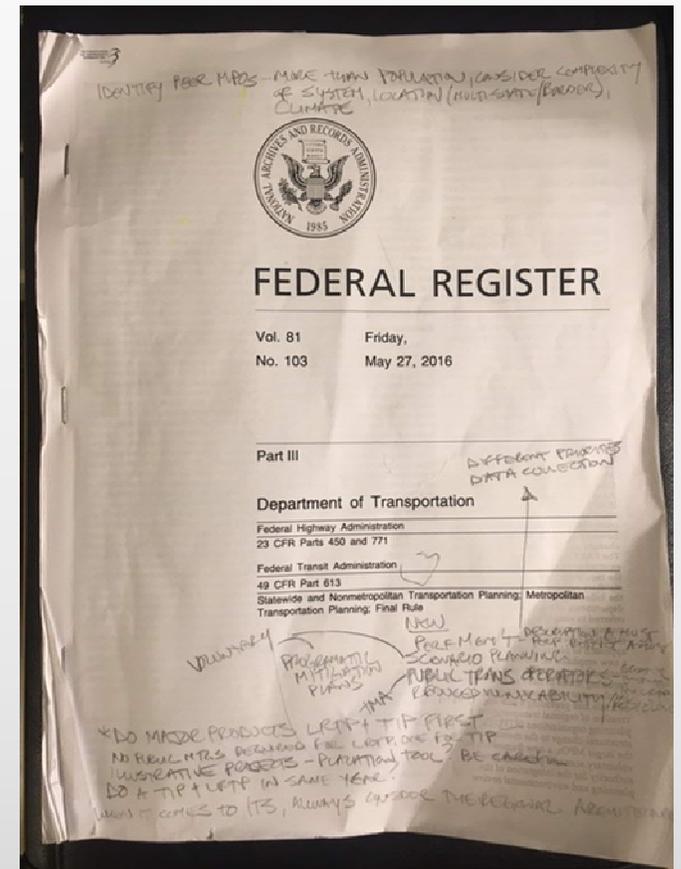
# Federal Metropolitan Transportation Planning Requirements

- ▶ Purpose (§ 450.300)
- ▶ Scope of the process (§ 450.306)
- ▶ Interested Parties, Participation, Consultation (§ 450.316)
- ▶ Planning studies (§ 450.318)
- ▶ Programmatic mitigation plans (§ 450.320)
- ▶ Congestion management process (§ 450.322)
- ▶ Metropolitan Transportation Plan (§ 450.324)
- ▶ Transportation Improvement Program (§ 450.326 - § 450.332 )
- ▶ Annual listing of obligated projects (§ 450.334)



# Federal Metropolitan Transportation Planning Requirements

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- ▶ Scope of the process (§ 450.306)
- ▶ Interested Parties, Participation, Consultation (§ 450.316)
- ▶ **Metropolitan Transportation Plan (§ 450.324)**
  - ▶ Planning studies (§ 450.318)
  - ▶ Programmatic mitigation plans (§ 450.320)
  - ▶ Congestion management process (§ 450.322)
- ▶ **Transportation Improvement Program (§ 450.326 - § 450.332)**
- ▶ Annual listing of obligated projects (§ 450.334)



# Purpose (§ 450.300)

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“(a) Set forth the national policy that the MPO designated for each urbanized area is to carry out a continuing, cooperative, and comprehensive performance-based multimodal transportation planning process, including the development of a metropolitan transportation plan and a TIP, that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity buses and intercity bus facilities and commuter vanpool providers) fosters economic growth and development, and takes into consideration resiliency needs, while minimizing transportation-related fuel consumption and air pollution; and (b) Encourages continued development and improvement of metropolitan transportation planning processes guided by the planning factors set forth in 23 U.S.C. 134(h) and 49 U.S.C. 5303(h).”

- ▶ **Continuing, cooperative, and comprehensive**
- ▶ **Performance-based**
- ▶ **Multimodal**

# Scope of the process (§ 450.306)

## ▶ 10 Planning Factors

1. Economic vitality
2. Safety
3. Security
4. Accessibility & Mobility
5. Environment, Energy, Quality of Life
6. Integration & Connectivity
7. Efficient Management & Operation
8. Preservation of Existing System
9. Resiliency & Reliability/Stormwater Management
10. Travel & Tourism



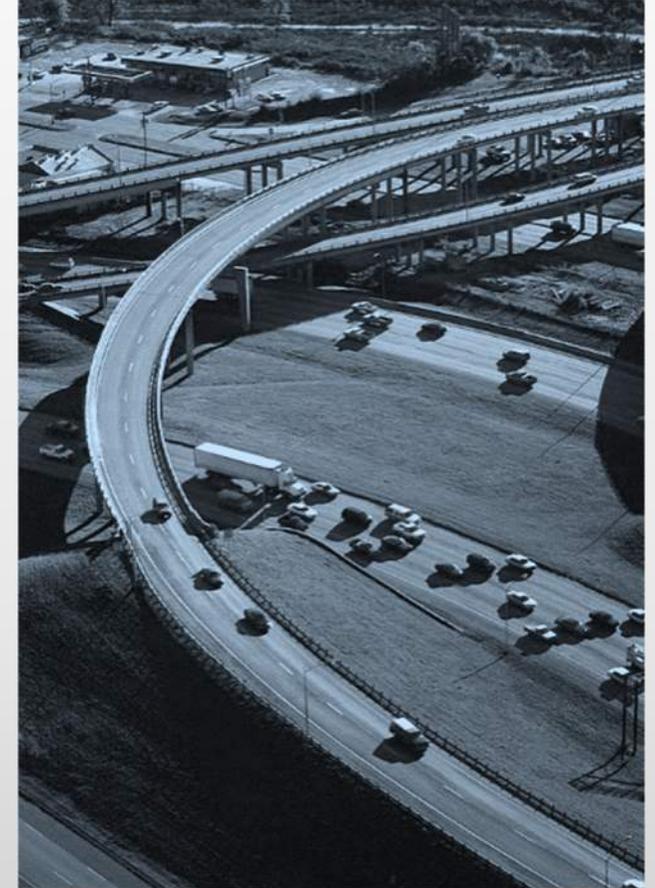
# Scope of the process (§ 450.306)

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- ▶ Performance-Based Approach
  - ▶ Support seven national goals by setting *targets* for established *measures* and *tracking progress* in critical outcomes via *management*
  - ▶ Coordinate with State DOT(s) and public transportation provider(s) to the maximum extent *practicable*
  - ▶ Set targets within 180 days of State DOT and public transportation providers setting theirs
  - ▶ Integrate goals, objectives, measures, and targets from essentially all other plans and processes

# TPM Introduction

- ▶ According to FHWA, Transportation Performance Management (TPM):
  - ▶ Is systematically applied, a regular ongoing process.
  - ▶ Provides key information to help decision makers allowing them to understand the consequences of investment decisions across transportation assets or modes.
  - ▶ Improving communications between decision makers, stakeholders and the traveling public.
  - ▶ Ensuring targets and measures are developed in cooperative partnerships and based on data and objective information.



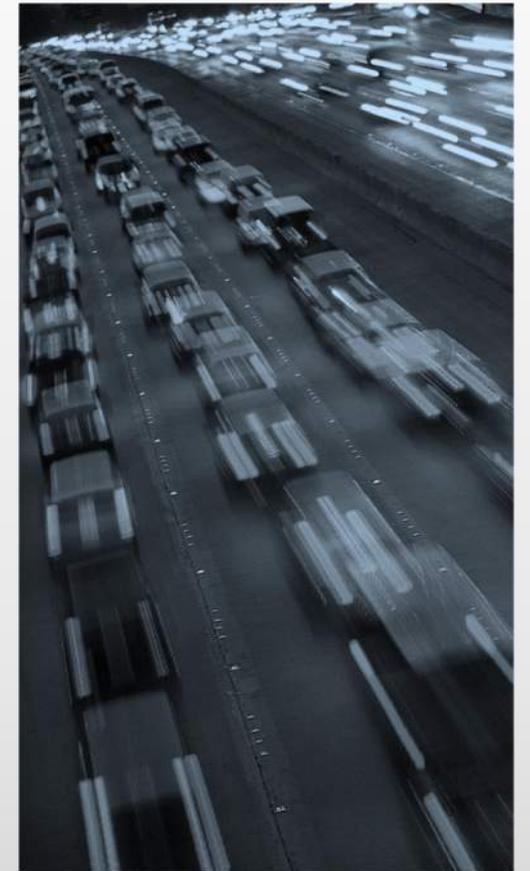
# TPM Background

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- ▶ Initial legislative action was in the Moving Ahead for Progress in the 21st Century Act (MAP-21)
  - ▶ Established performance- and outcome-based planning and programming processes via measures, targets, and accountability standards for state departments of transportation and metropolitan planning organizations
  - ▶ Seven goal areas:
    - ✓ Safety
    - ✓ Infrastructure Condition
    - ✓ Congestion Reduction
    - ✓ System Reliability
    - ✓ Freight Movement & Economic Vitality
    - ✓ Environmental Sustainability
    - ✓ Reduced Project Delays

# TPM Background

- ▶ Aggressive timeframe for implementation in MAP-21, which didn't occur
- ▶ Provisions were carried over in the Fixing America's Transportation System (FAST) Act
- ▶ Measures for each of the goals were created by FHWA and FTA and targets must be set for consideration in the long range planning and programming processes
  - ▶ MPOs can support their state's targets or establish their own
- ▶ The implementation is being rolled out in stages with different effective dates for the measures



# TPM FHWA Performance Measures

## HSIP & Safety

- ▶ Number of Fatalities
- ▶ Fatality Rate
- ▶ Number of Serious Injuries
- ▶ Serious Injury Rate
- ▶ Number of Non-Motorized Fatalities and Serious Injuries

## Pavement & Bridge Condition

- ▶ Percentage of Interstate System in Good Condition
- ▶ Percentage of Interstate System in Poor Condition
- ▶ Percentage of non-Interstate NHS in Good Condition
- ▶ Percentage of non-Interstate NHS in Poor Condition
- ▶ Percentage of NHS Bridge Deck Area in Good Condition
- ▶ Percentage of NHS Bridge Deck Area in Poor Condition

## Performance of NHS, Freight, & CMAQ

- ▶ Level of Travel Time Reliability on Interstate System
- ▶ Level of Travel Time Reliability on non-Interstate NHS
- ▶ Truck Travel Time Reliability on Interstate System
- ▶ Annual Hours of Peak Hour Excessive Delay per Capita
- ▶ Modal Share by non-Single Occupancy Vehicle
- ▶ On-Road Mobile Source Emissions

# TPM FTA Performance Measures

## Asset Management

- ▶ Percent of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)
- ▶ Percent of non-revenue vehicles within a particular asset class that have met or exceeded their ULB
- ▶ Percent of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale
- ▶ Percent of track segments with performance restrictions (as applicable)

## Safety

- ▶ Total Number of Reportable Fatalities
- ▶ Rate of Reportable Fatalities per Total Vehicle Revenue Miles by Mode
- ▶ Total Number of Reportable Injuries
- ▶ Rate of Reportable Injuries per Total Vehicle Revenue Miles by Mode
- ▶ Total Number of Reportable Safety Events
- ▶ Rate of Reportable Safety Events per Total Vehicle Revenue Miles by Mode
- ▶ Mean Distance between Major Mechanical Failures by Mode

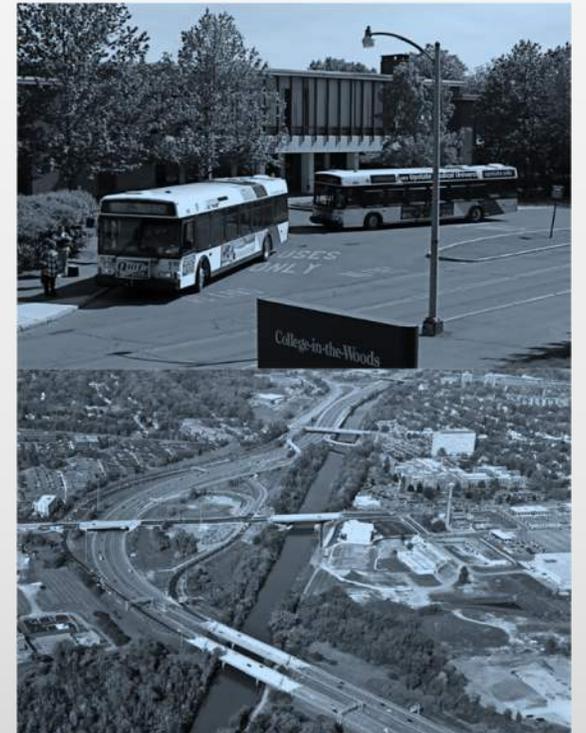
# TPM MTP and TIP Requirements

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- ▶ Metropolitan Transportation Plans (MTPs) and Transportation Improvement Programs (TIPs) adopted or amended needed to meet performance based planning and programming requirements on May 27, 2018
  - ▶ LRTPs must each include a system performance report that include an evaluation of system performance with respect to the performance targets
  - ▶ TIPs must include an anticipated effects narrative that describes in the TIP how the program of projects contributes to achieving the MPO's performance targets in the LRTP
  - ▶ For MPOs that choose to do scenario planning, the LRTP system performance report must include how the preferred scenario will/has improved performance

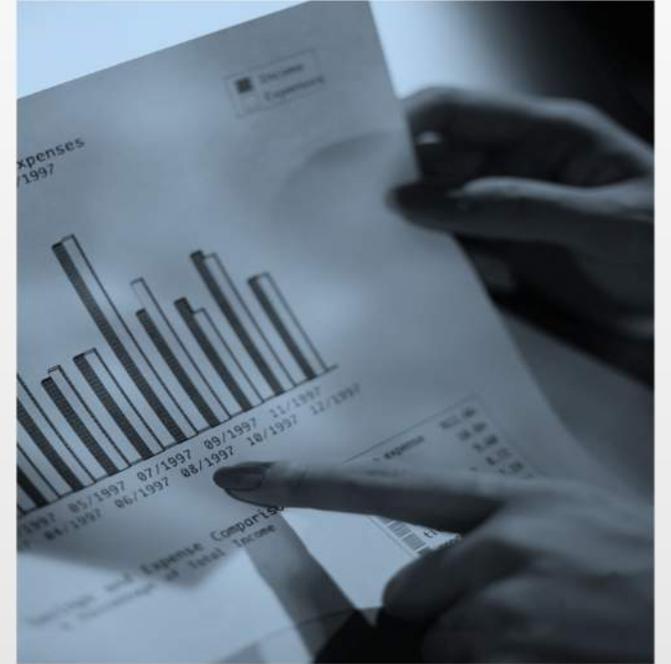
# TPM MPO Deadlines

- ▶ The dates for the various performance measures to be included in LRTP system performance reports and TIP anticipated effects narratives:
  - ▶ FHWA Safety: May 27, 2018
  - ▶ FTA Transit Asset Management: October 1, 2018
  - ▶ FHWA Pavement & Bridge Condition: May 20, 2019
  - ▶ FHWA Performance of NHS, Freight, & CMAQ: May 20, 2019
  - ▶ FTA Safety – July 20, 2021  
(with targets set by January 20, 2021)



# Thoughts on Performance-Based Planning & Programming

- ▶ Identify what's important to customers
- ▶ Work with member agencies to ensure consistency with their priorities
- ▶ Make measures meaningful and comprehensible
- ▶ Select outcome-based measures instead of activity-based ones
- ▶ Clearly define each measure
- ▶ Utilize real-world data as opposed to modeled data
- ▶ Use measures to articulate results and needs



## Interested Parties, Participation, & Consultation (§ 450.316)

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- ▶ Create a public participation plan in *consultation* with interested parties and adhere to it
- ▶ Provide adequate notice (no surprises)
- ▶ Provide reasonable access
  - ▶ ADA-accessible locations on public transit routes for meetings
- ▶ Go the extra mile for those not typically well-represented
- ▶ Build in time for a second review of draft recommendations
- ▶ Provide responses to comments
- ▶ There's room for interpretation between (a) and (b) of this section

**Always best to engage as many interests as possible**

# Development and Content of the MTP (§ 450.324)

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- ▶ At least a 20-year horizon (can be as far out as you want)
  - ▶ Current and projected demand so consider carefully
- ▶ Consider the 10 Planning Factors
- ▶ Never put off until tomorrow what you can do today
- ▶ Latest, greatest data from State DOT(s) and public transportation provider(s)
- ▶ Include all surface transportation modes up to and including access to airports and seaports
- ▶ Performance measures, targets, and associated report
- ▶ Scenario planning is voluntary

# Development and Content of the MTP (§ 450.324)

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- ▶ System management and operations
  - ▶ Closely tied to the congestion management process in TMAs
- ▶ The “kitchen sink” clause (7)
  - ▶ Capital investment and other strategies to preserve infrastructure, allow for multimodal capacity increases, and reduce vulnerability to natural disasters
- ▶ Transit including intercity buses and private providers
- ▶ Design *concepts* and *scopes* for existing and proposed facilities if in nonattainment or maintenance
  - ▶ All others (i.e., attainment) must have enough detail to estimate costs
- ▶ Discussion of types of environmental mitigation activities and areas to apply them

# Development and Content of the MTP (§ 450.324)

It was all easy until now...along comes the dreaded financial plan

- ▶ “Reasonably expected” is as much art as science
  - ▶ The same goes for “year of expenditure dollars”
- ▶ You find out who your true friends are
  - ▶ Roles of state DOTs and public transportation operators are defined in the metropolitan planning agreements
- ▶ Don't confuse *funding* and *financing*
- ▶ Be careful with illustrative projects
  - ▶ They can become the ultimate placation tool



# Thoughts on Long Range Transportation Planning

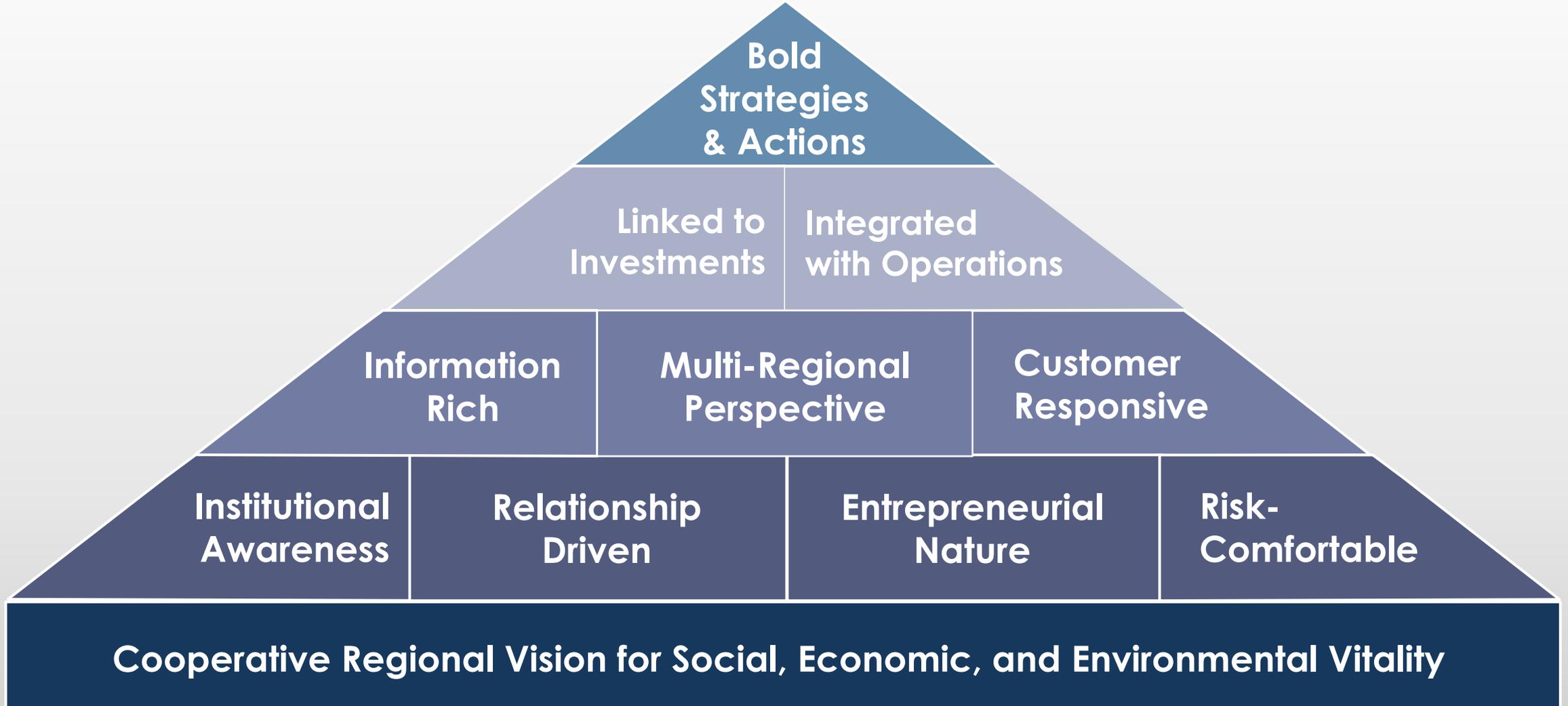
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***It is always wise to look ahead, but difficult to look further than you can see.***

-- Winston Churchill



# Long Range Transportation Planning Pyramid of Success



# Long Range Transportation Planning Pyramid of Success

## Cooperative Regional Vision for Social, Economic, and Environmental Vitality

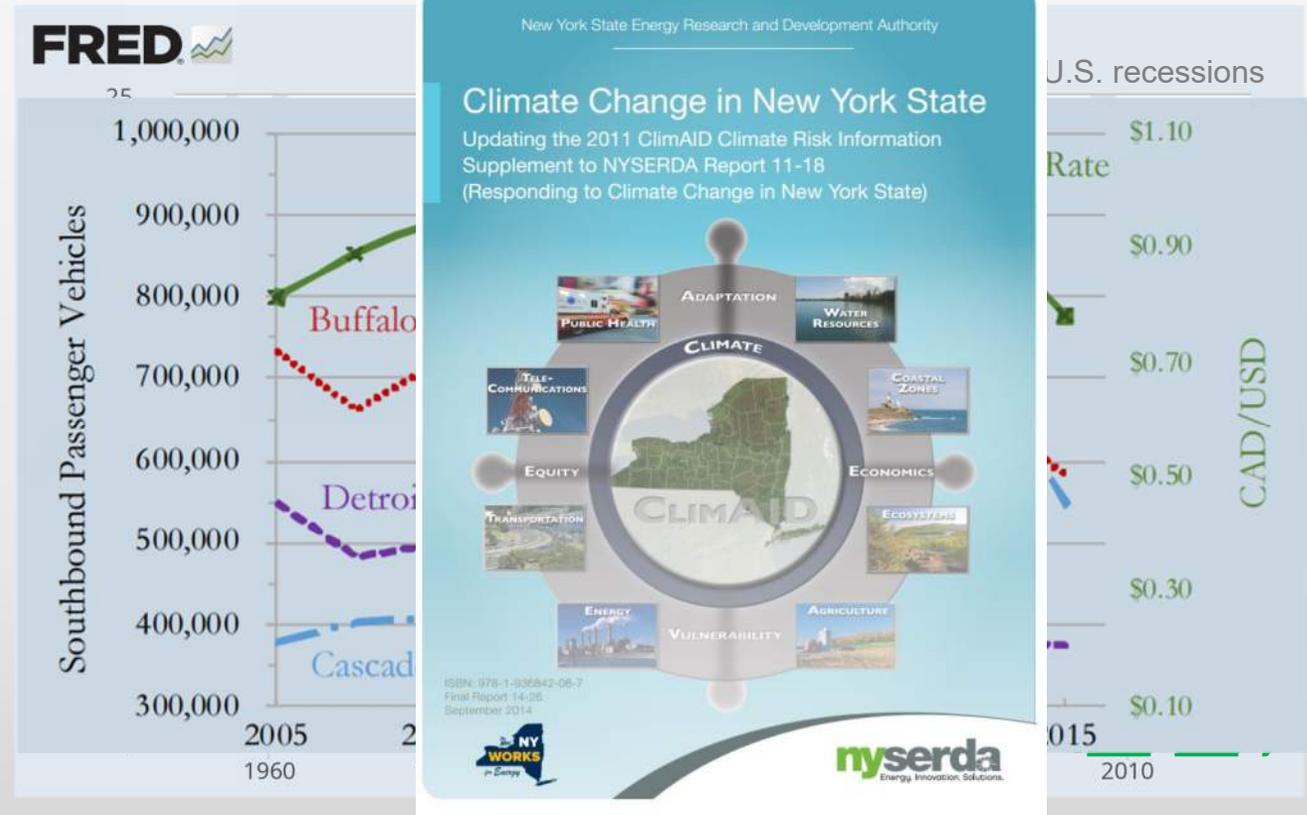
- ▶ Grounded in quality of life, economic development, and sustainability
  - ▶ What we say versus what we do
  - ▶ Where we are going versus where we want to go
  - ▶ What we can and should do differently
  - ▶ How we can measure what we are doing



# Long Range Transportation Planning Pyramid of Success

## Institutional Awareness

- ▶ What we can influence
- ▶ What is exogenous
  - ▶ Monitored and incorporated
- ▶ What functions and associated structures will be needed



# Long Range Transportation Planning Pyramid of Success

## Relationship Driven

- ▶ Elected & Appointed Leaders
- ▶ Peers at Relevant Agencies
- ▶ Involved in Long Range Transportation Planning Process and vice versa



# Long Range Transportation Planning Pyramid of Success

## Entrepreneurial Nature

- ▶ We live in an era of disruption and that is not going to change any time soon
  - ▶ Disruptive has a negative connotation for a reason
- ▶ New ways of viewing current and future SWOTs



# Long Range Transportation Planning Pyramid of Success

## Risk-Comfortable

- ▶ Neither Risk-Friendly nor Risk-Averse
  - ▶ Simply part of doing business in an environment of rapid change
- ▶ Key is managing it cost-effectively

Identify Risks

Screen Risks Qualitatively

Analyze Risks Quantitatively

Develop and Implement Responses

Monitor Outcomes

# Long Range Transportation Planning Pyramid of Success

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**Information  
Rich**

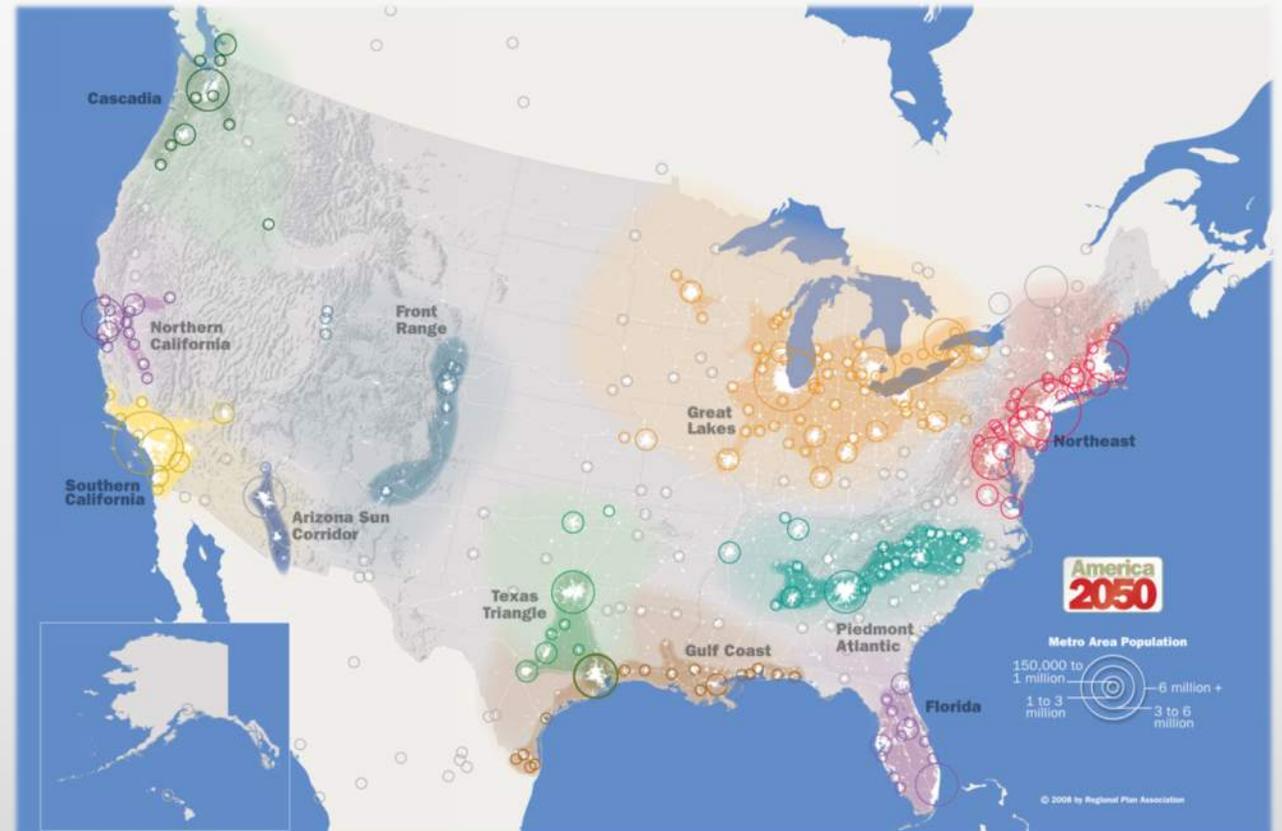
- ▶ Big data is meaningless
  - ▶ Requires ability to not only manipulate it but also interpret it
- ▶ Analysis can never replace planning
- ▶ Must not become “Action Poor”

**Data  
Rich  
Information  
P oor**

# Long Range Transportation Planning Pyramid of Success

## Multi-Regional Perspective

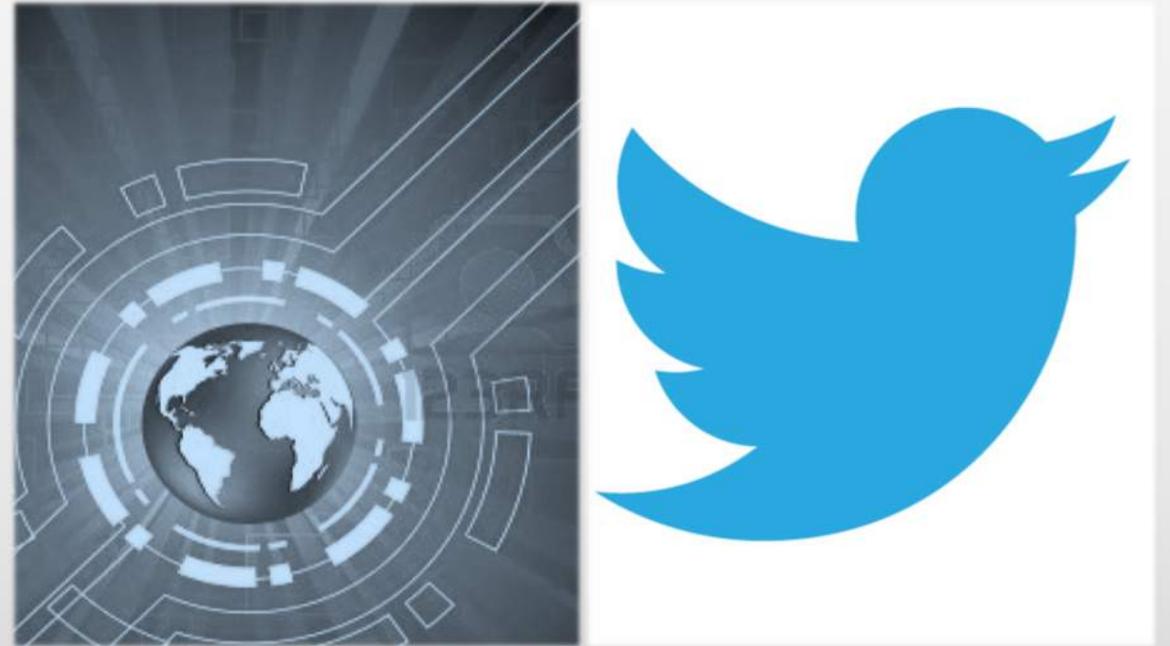
- ▶ Agglomeration Economies
  - ▶ Availability of Customers
  - ▶ Requisite Labor Force
  - ▶ Clusters/Connected Industries



# Long Range Transportation Planning Pyramid of Success

## Customer Responsive

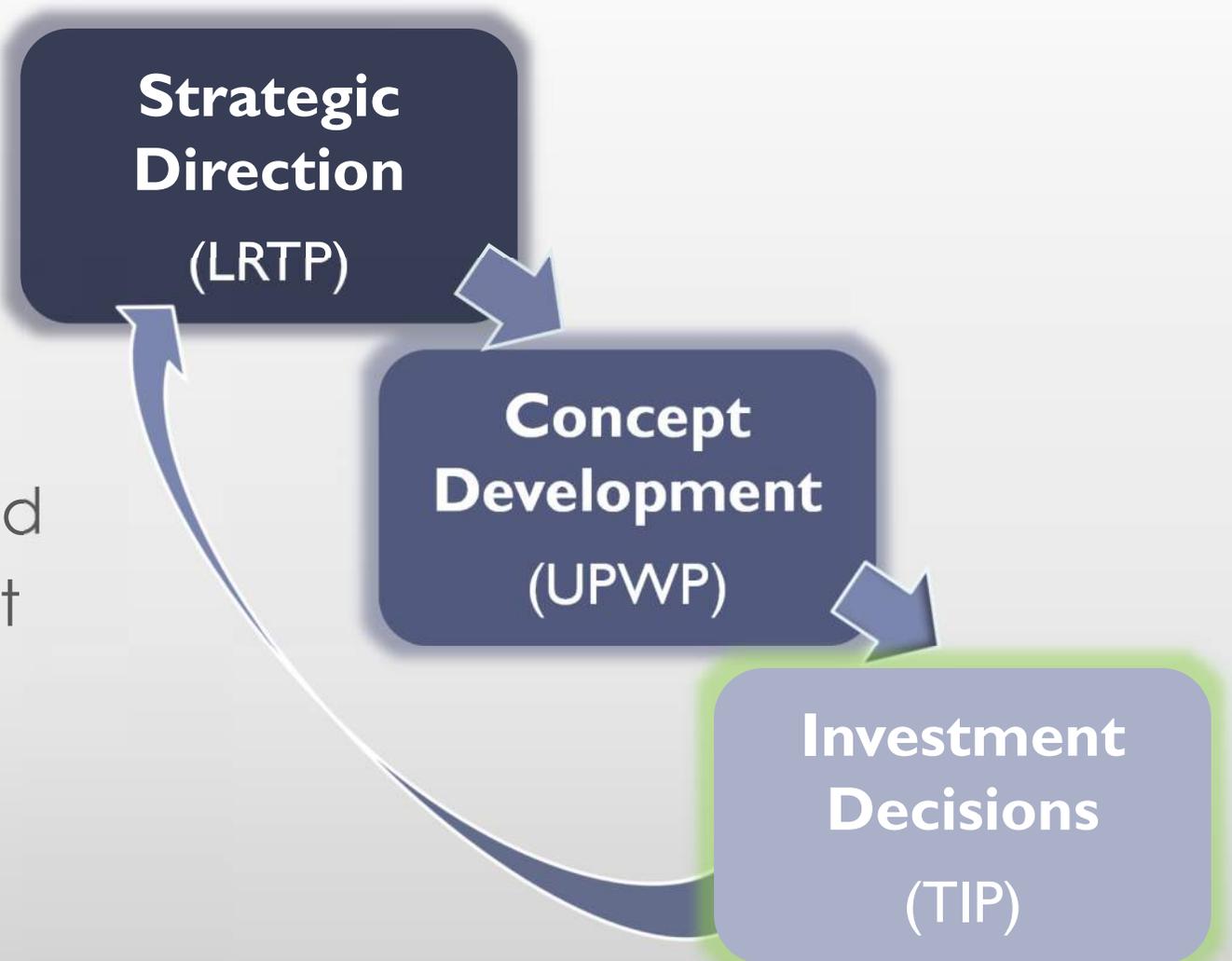
- ▶ Nearly 90 percent of Americans are online
  - ▶ Almost 80 percent own smartphones
- ▶ Completely new set of expectations
  - ▶ Communicate with and involve differently



# Long Range Transportation Planning Pyramid of Success

Linked to  
Investments

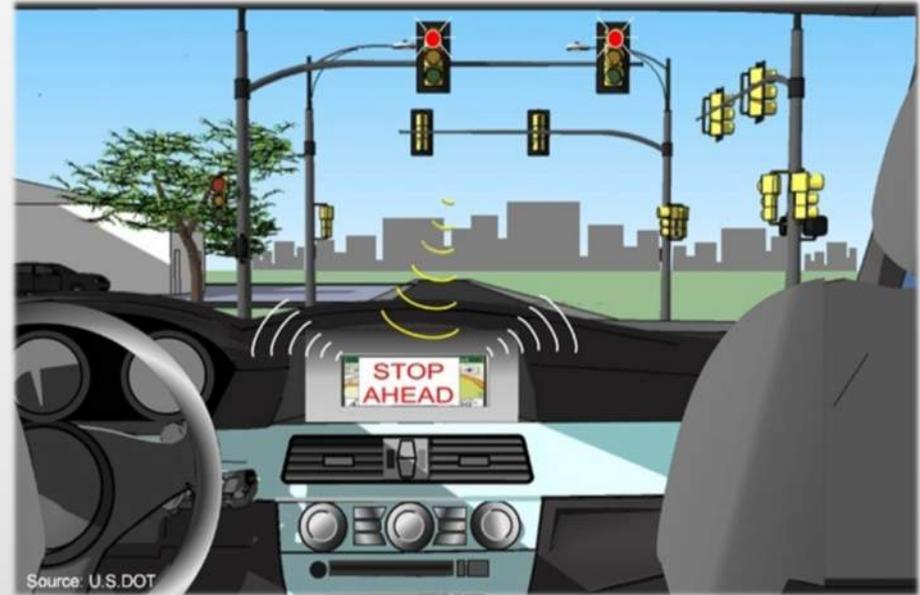
- ▶ Put your money where your mouth plan is
- ▶ Diminishes the relevancy of the plan if not accomplished
- ▶ The most important element of performance management



# Long Range Transportation Planning Pyramid of Success

## Integrated with Operations

- ▶ Emphasize the “what” not the “how”
- ▶ Move beyond the “Golden Hammer”
- ▶ Increase exposure to decision makers
- ▶ Pay attention to the Regional ITS Architecture



# Long Range Planning Pyramid of Success

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**Bold  
Strategies  
& Actions**

*If you limit your choice only to what seems possible or reasonable, you disconnect yourself from what you truly want, and all that is left is a compromise. The human spirit will not invest itself in a compromise.*

-- Robert Fritz



# Long Range Planning Pyramid of Success

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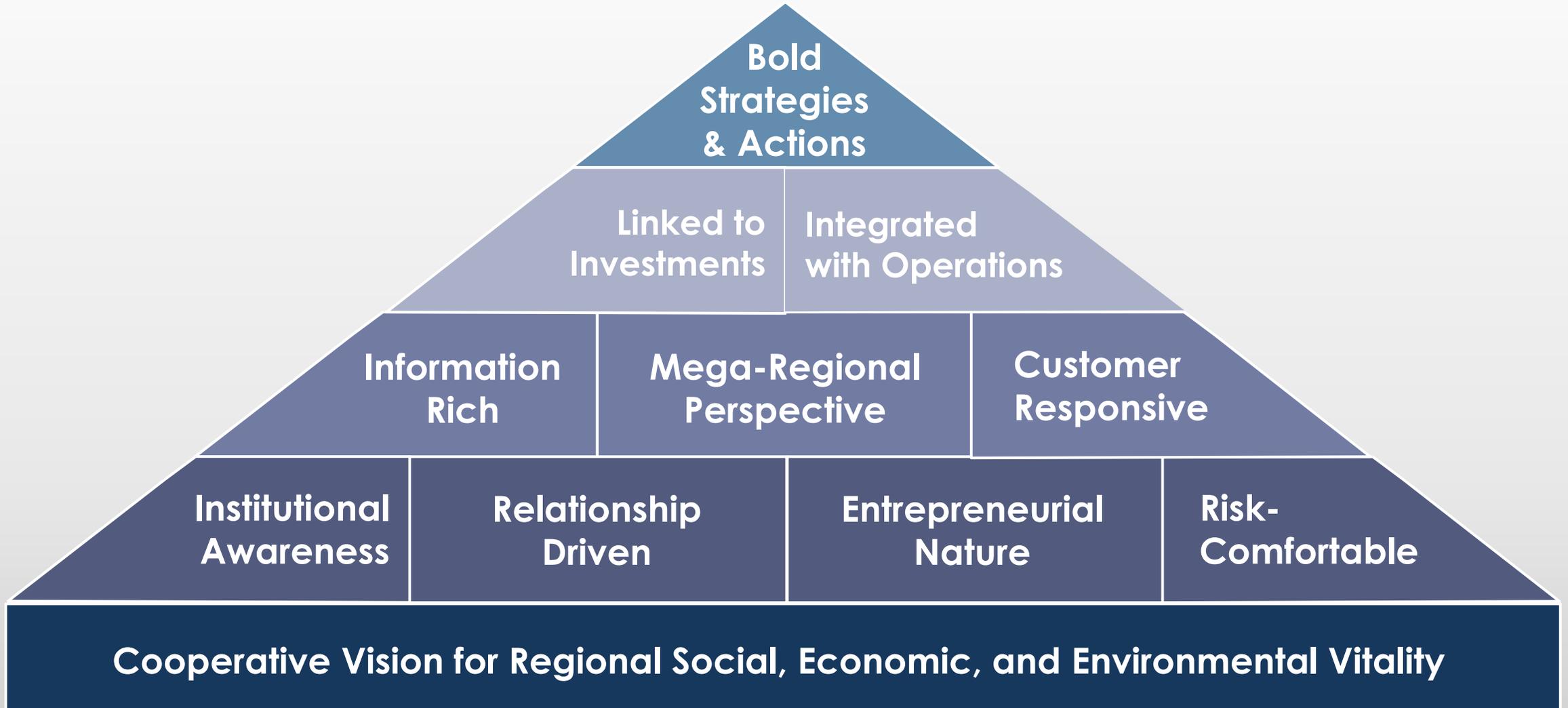
**Bold  
Strategies  
& Actions**

***Make no little plans; they have no magic to stir men's blood...Make big plans; aim high in hope and work.***

-- Daniel Burnham



# Long Range Planning Pyramid of Success



# Development and Content of the TIP (§ 450.326)

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- ▶ Cover a period of no less than four years
  - ▶ Can have projects in additional years for informational purposes
  - ▶ Requires approval by the Governor, be consistent with STIP cycle
- ▶ Progress towards performance targets and anticipated impacts
- ▶ Includes projects proposed to be advanced with major Federal transportation program funds
  - ▶ NHTSA safety, planning, emergency relief, etc. are voluntary
- ▶ Regionally significant projects being funded with non-Federal funds must also be included

# Development and Content of the TIP (§ 450.326)

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- ▶ For every project:
  - ▶ Description (type of work, termini, length)
    - ▶ Good rule of thumb: you should be able to model the project based on it
  - ▶ Costs and revenues by phase by fiscal year and total
- ▶ Note if they advance ADA required paratransit & key station plans
- ▶ There is the ability to block “less intense” projects (those that would be considered “exempt” for conformity processes)
  - ▶ Preventive & corrective maintenance projects
- ▶ List major projects from last TIP that were implemented
- ▶ Describe evaluation and ranking process (including any changes)

# Development and Content of the TIP (§ 450.326)

- ▶ The dreaded financial plan rears its ugly head again (but not as bad)
- ▶ Shorter time frame provides *illusion* of certainty
- ▶ “Reasonably expected” and “year of expenditure” still apply
- ▶ Illustrative projects are still an option
- ▶ Fiscal constraint must be demonstrated and maintained by year
  - ▶ It’s a good idea to do it by fund source as well
  - ▶ Show it right up front
- ▶ Cannot be based on pre-determined formulas or agreements



# Other Key TIP Provisions (§ 450.328, § 450.330, § 450.332)

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- ▶ TIP revisions and relationship to STIP (§ 450.328)
  - ▶ Can make changes at anytime
    - ▶ Conformity can complicate things for nonattainment and maintenance areas
  - ▶ Amendments require review consistent with public participation plan
  - ▶ Administrative modifications do not (but some public review is a good idea)
- ▶ TIP action by the FHWA and the FTA (§ 450.330)
  - ▶ Keep your MTP up to date
- ▶ Project selection from the TIP (§ 450.332)
  - ▶ If in current year and fiscally constrained, no problem
  - ▶ TMAs select projects in consultation with State DOT except on NHS
  - ▶ State DOTs cooperatively select projects with MPOs in non-TMAs

# Annual Listing of Obligated Projects (§ 450.334)

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- ▶ MPO, State DOT(s), and public transportation operators develop a listing of projects to which Federal funds were obligated
- ▶ Key items to be included:
  - ▶ Project description
  - ▶ Programmed amount in previous year
  - ▶ Obligated amount in previous year
  - ▶ Programmed amounts in future years
  - ▶ Sponsor
  - ▶ Good idea to include map as well
- ▶ Even better idea to make interactive on web
- ▶ Must be made available wherever TIP is made available



# Thoughts on Capital Programming

## Project Selection

Ensure the TIP includes the most-needed projects and programs



## Project Delivery

Complete projects in the TIP on-time and on-budget



## Project Addition

Effectively communicate the need for additional investment



Photo Credits: GTC staff and *Texas Tribune* photo illustration by Todd Wiseman and Corey Leopold

# Thoughts on Capital Programming

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## ▶ TIP Development

1. Select project evaluation criteria directly linked to performance metric and associated targets
2. Identify and ask the right questions in the project application and interviews with sponsors
3. Develop a rater's guide that defines scores for each criterion based on estimated impacts (consistency is essential)

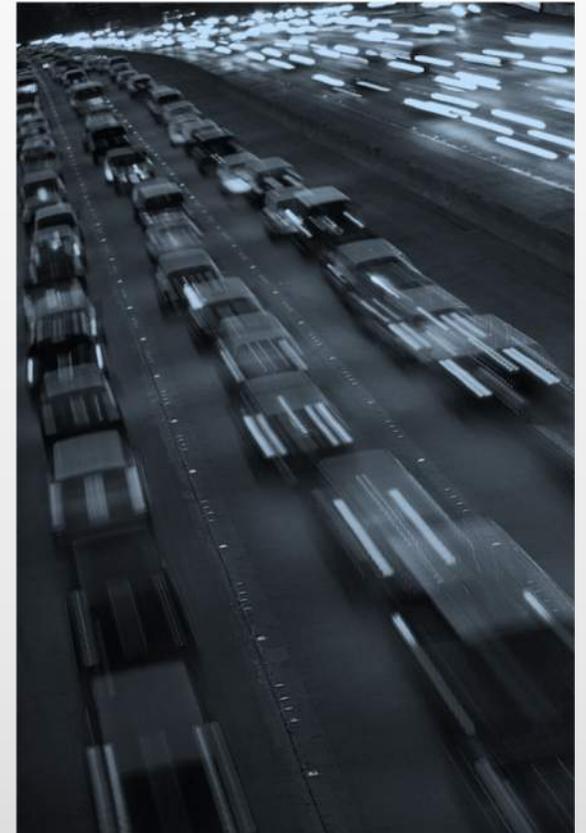
## ▶ TIP Management

1. Define amendments and administration modifications
2. Create a process and schedule for changes
3. Determine content and timing for project delivery reviews

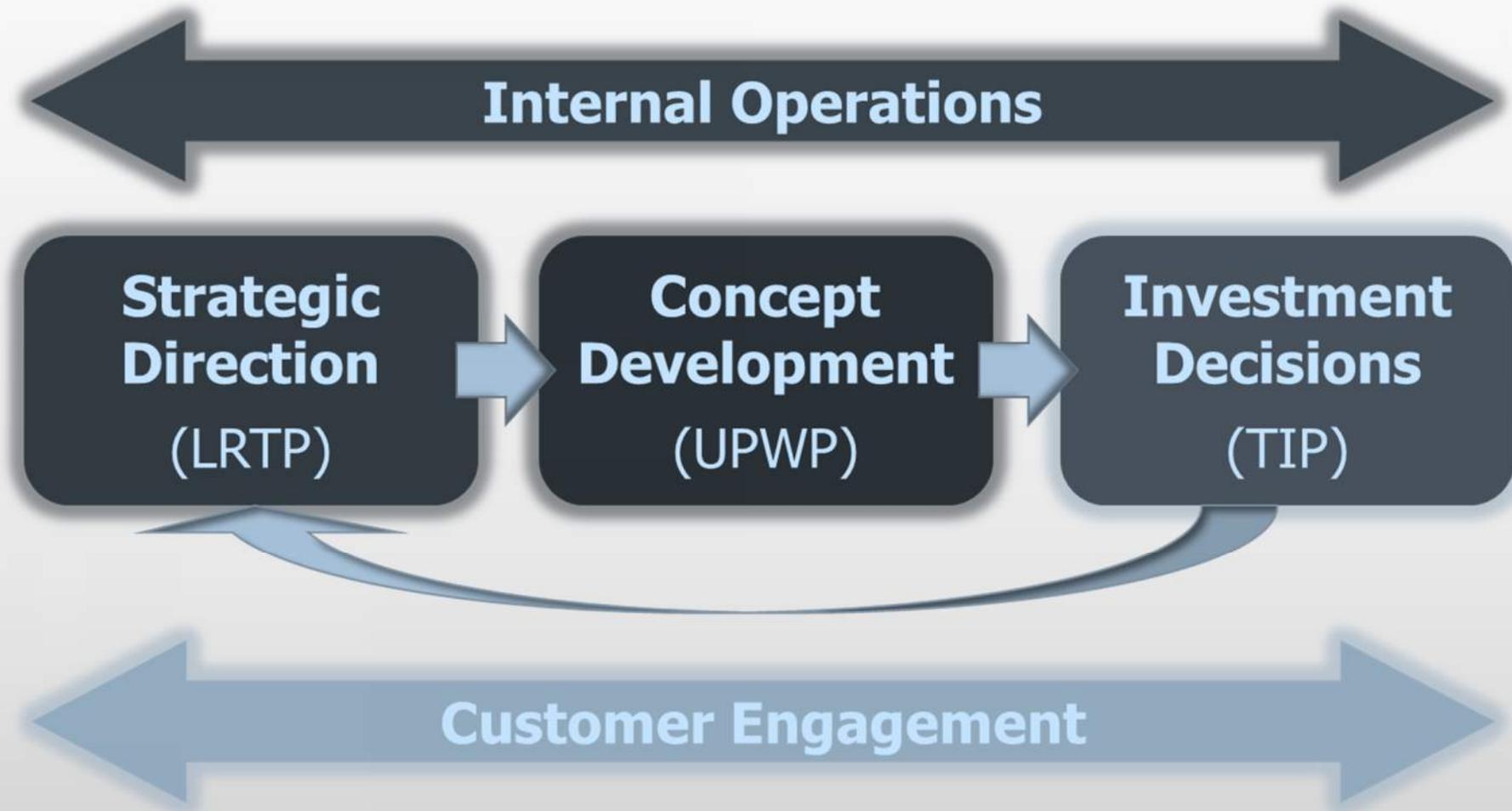
**Codify everything in a procedures manual**

# Thoughts on Capital Programming

- ▶ Cooperation and critical thinking are key
  - ▶ Technology and data are not replacements
  - ▶ Involve member agencies continuously
- ▶ Quantitative does not equal objective
  - ▶ Requires improved understanding of what determines system and modal performance
- ▶ Reassessment is a requirement
  - ▶ Change for the sake of change is not progress...
  - ▶ ...but there is always room for improvement



# Going Forward



# Going Forward

- ▶ Transportation Planning Capacity Building
  - ▶ [www.planning.dot.gov](http://www.planning.dot.gov)
  - ▶ Would suggest peer identification and assessment using MPO database

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

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**Training and Events Calendar**

| Event   | Date      |
|---|-----------|
| NHI Course: Pedestrian Facility Design  | 5/24/2017 |
| NHI Training: Advanced Relocation under the Uniform Act   | 6/6/2017  |
| TRB Webinar: Innovative Financing for Public Transportation: Value Capture and Small-and Medium-sized Public Private Partnerships | 6/7/2017  |
| NHI Course: FHWA Basic Contracting Officers Representative (COR) Training   | 6/12/2017 |

Check the Calendar

**New Publications**

**Publications:**

- ▶ Performance-Based Planning and Programming Roundtable Series Summary Report
- ▶ Ridesharing, Technology, and TDM in University Campus Settings: Lessons for state, regional, and local agencies
- ▶ STIP State of the Practice Review: Development and Use of Statewide Transportation Improvement Programs

**Peer Reports:**

- ▶ FHWA Mid-South Megaregion Workshop
- ▶ Transit Oriented Development in Southern Nevada Peer Exchange Report

**TPCB Key Resources**

**Key Issues**

The Transportation Planning Process: Key Issues

**Data**

Search the MPO Database

**Focus Areas**

- ▶ Active Transportation
- ▶ Congestion & Transportation Demand Management
- ▶ Fiscal Constraint
- ▶ Metropolitan
- ▶ Performance-Based
- ▶ Public Engagement
- ▶ Public Lands
- ▶ Rural & Small Community

# Going Forward

- ▶ FHWA Transportation Performance Management
  - ▶ [www.fhwa.dot.gov/tpm/](http://www.fhwa.dot.gov/tpm/)

The screenshot shows the homepage of the FHWA Transportation Performance Management website. At the top, there is a navigation bar with the U.S. Department of Transportation Federal Highway Administration logo on the left and links for About, Programs, Resources, Briefing Room, Contact, and Search FHWA on the right. Below this is a main header with the title "Transportation Performance Management" and sub-navigation for TPM and MAP-21, Engagement, and Resources. A breadcrumb trail indicates the current location: Home / Programs / Transportation Performance Management. The main content area features a large banner for the "TPM DIGEST" with the subtitle "FHWA Transportation Performance Management". The banner includes a logo with the text "TPM HOW WE GET THERE" and a graphic of a document. Below the banner, a text box describes the digest's content: "TPM Digest: Find out the latest in TPM including: Online State Dashboards, Performance Reports, Mobility, Performance Based Planning, Safety, Events, Workshops, Webinars, Transportation Performance Management Research, and Innovation." Navigation buttons for "Pause", "Previous", and "Next" are visible, along with a page indicator showing "1 2 3 4". To the right of the main content are three sidebar sections: "Events" listing a webinar on "Lessons Learned from Target Setting Coordination" on June 13, 2017; "Related Links" with links to "FHWA/DOT TPM-related Links" and "TPM External links"; and "Contacts" listing "Susanna Hughes-Reck" with her title, phone number, and email address. At the bottom of the page, there are four columns of content: "Implementation" (What is TPM?, National Goals, MAP-21 Putting Performance into Action, Implementation Schedule), "Engagement" (Rulemaking Stakeholder Engagement, Reporting), "Resources" (Apply for P2P Technical Assistance, Noteworthy Practices, Presentations and Webinars, Publications, Tools, TPM Digest), and "Email Notification" (Subscribe to email updates) and "Calendar" (Lessons Learned from Target Setting Coordination Webinar, June 13, 2017).

# Going Forward

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- ▶ Get to know your partners at State DOT(s), public transportation operators, and FHWA and FTA
  - ▶ Find common ground; it's there
  - ▶ Say “yes” as often possible
- ▶ Make your job easier by making others' jobs easier
  - ▶ Include them early and often (it leaves time for negotiation)
  - ▶ Create a checklist for FHWA/FTA/State DOT
- ▶ Pick up the phone
  - ▶ That thing can do more than email/text/post
  - ▶ Complex issues and negotiation are better handled in a conversation



**Closing Thoughts: What are the next steps for you**