

# THE FUTURE STARTS TODAY



**NOTE:** Foresight 750 Series materials are available to help set the context for this scenario-planning workshop, including:

- Keynote in a Box  
(<http://www.trb.org/NCHRP750/ForesightReport750SeriesToolsforYou.aspx>)
- A short video  
(<https://www.youtube.com/watch?v=NkOnIXICDQk&feature=youtu.be>)

It is highly recommended that these materials be reviewed in advance and used as introductory materials if time allows.

Hello,

I'm pleased to be here today. The primary purpose of this workshop "The Futures Starts Today" is to provide you with a framework for thinking about emerging transportation trends and issues in the context of how they may influence our future mission, role, opportunities and challenges.

# 2-PART SCENARIO PLANNING ACTIVITY

1

Explore how the world around transportation might change based on your assigned scenario ...



2

Explore specific <insert agency name> transportation issues ...



Today we're going to look beyond our day-to-day world and responsibilities to think and talk about what the future might look like and how it can affect the future of transportation and <insert organization>.

We'll use a two-part scenario planning activity, including two breakout group discussions:

1. In the first round, you'll discuss the scenario listed on the table tent in the middle of your table and explore the <xxx – insert number> policy questions based on your scenario. Following that discussion, each table will report out to the whole group. The overall session facilitator will look for similarities among and differences between responses to the scenarios.

2. In the second round, groups will focus on the <xxx – insert number> questions that focus on the overall impact of their assigned scenario on transportation. Again, following that discussion, each table will report out to the whole group. The overall session facilitator will provide a wrap-up identifying the major commonalities and differences across responses to the different scenarios.

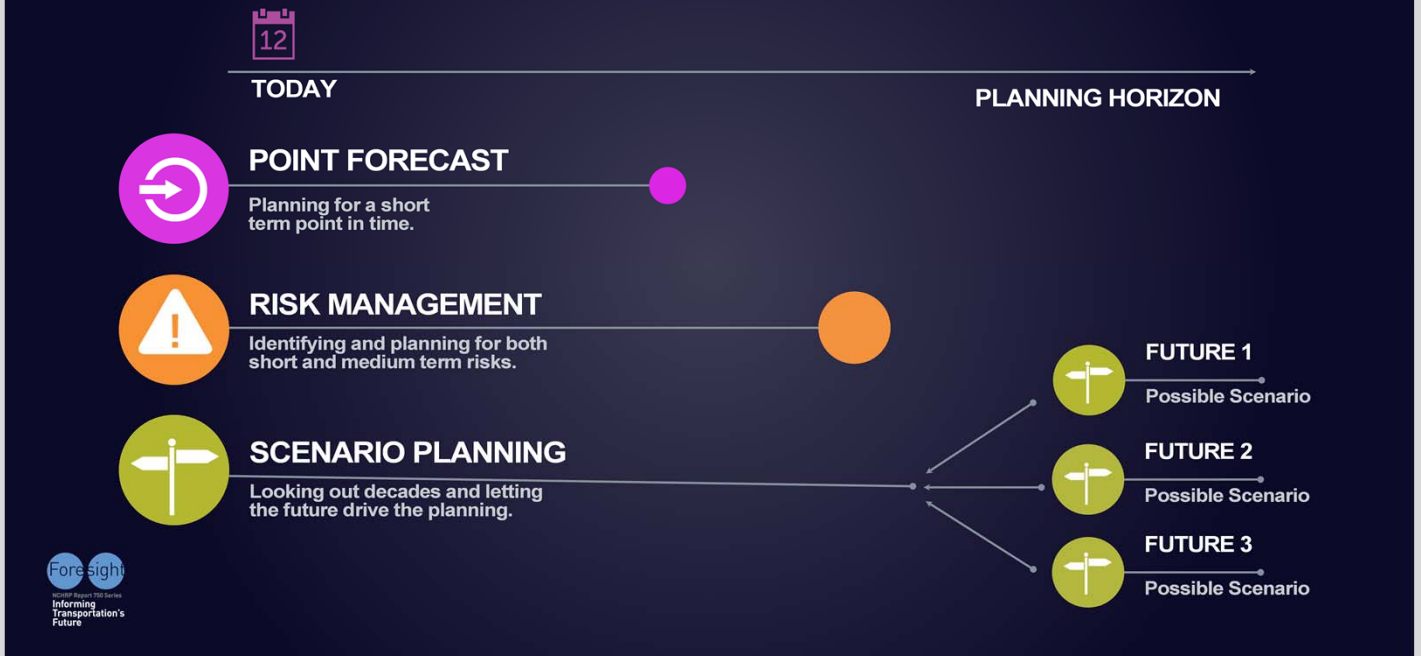
# PART 1

## The Changing World Around Us



Let's start by considering how the world around us is changing.

# THE SCENARIO PLANNING MINDSET



Many organizations find themselves planning for the very short term. This approach of point forecast may be driven by uncertain budgets or politics, and it is what many of us are asked to do.

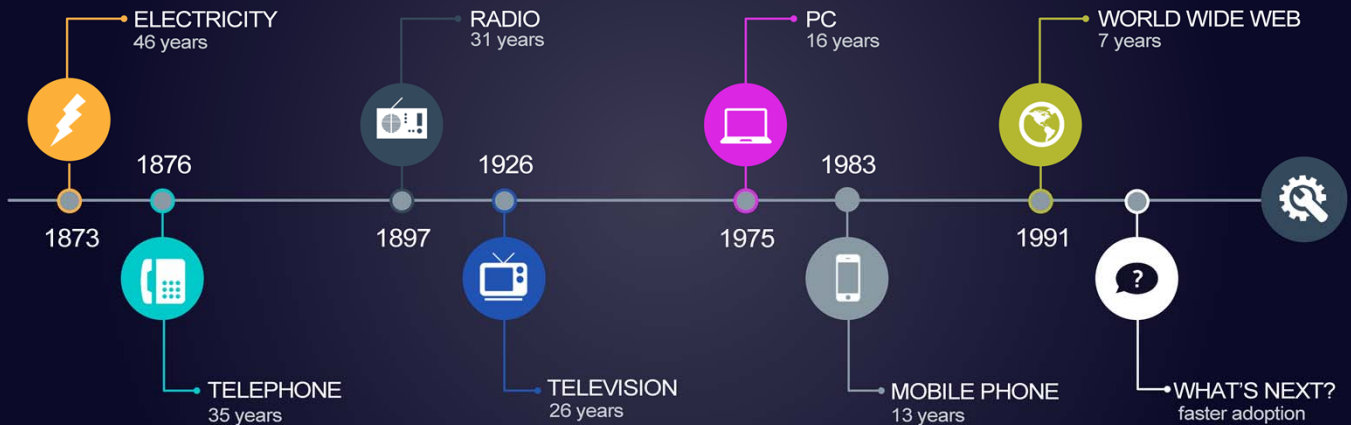
The other common form of planning is risk based. For example, we know when a certain asset will reach its limit of safety, and we program to meet that risk.

But what we're going to talk about is long term planning where we identify multiple futures and work backwards to identify the work that needs to happen today. So, we begin with the end in mind and let that drive our planning.

Before we get started, I would like to offer clarification on a scenario and scenario planning. A scenario is a set of assumptions about how drivers of change interact. Scenario planning is thinking about the implications of different scenarios.

# CONSIDER THE SPEED OF CHANGE

Years until technology was used by one-quarter of Americans



Slide will build automatically.

- This slide dramatically makes the point. The rate at which Americans can and are adopting technology has accelerated dramatically. It took us 35 years to adopt a landline telephone but only 13 years to adopt mobile phones. Sixteen years to adopt personal computers but the world wide web was built out in less than half that time.
- What is the next transportation technology Americans will adopt? Will it be autonomous vehicles? Will it be a connected network of vehicles and infrastructure, where vehicles are in constant contact with each other and the roadway features, creating a potentially “crashless” driving environment? Some argue it isn’t a matter of if but rather when these technologies will become part of our everyday lives.
- And it’s this accelerating rate of change in technology, along with the other trends presented in the Foresight Report 750 Series, that may lead you to ask: “Will the future just be an incremental change in what we know today, or will our future be radically different?”
- Source The Atlantic, July 2012



## FOCUS FOR TODAY

**Across all scenarios:**

***How might the world change  
and what does that mean to  
transportation through 2040?***

The focus for today is to discuss how the world might change and what that change means to transportation in 2040.

**Note – The focus for the workshop varies by audience and planning effort.**

# DRIVING FORCES

How might they converge and change the future?



- **Economy**
- **Technology**
- **Politics**
- **Society**
- **Environment**

We've chosen to examine the following four key drivers of change. While it's interesting to talk about these four topics in isolation, in order to consider realistic future scenarios, you need to look at the combined impact these drivers of change may have on the world you'll need to operate in:

**Economy** – The broad increase in U.S. GDP is a major determinant of the resources available to address the challenges that transportation agencies will face.

**Technology** – Transportation technologies of the future will likely vary substantially from what is available currently. Changes could occur in information technology and communications, materials, fuels, and engines that affect infrastructure and the vehicles that use it.

**Society** – The size, geographic distribution and characteristics of the U.S. population are likely to be a major factor influencing the resources available to state DOTs, transportation demand, and the opportunities and challenges facing them.

**Environment** – Increasing awareness of environmental, economic and social changes, and how those changes impact transportation could undoubtedly alter fiscal, legal and institutional structures, decision-making processes, and partnerships.

# FORESIGHT SCENARIO EXAMPLES

Forces may cut across all the scenarios or be specific.



**MOMENTUM**



**GLOBAL CHAOS**



**TECH TRIUMPH**



**GENTLE FOOTPRINT**

What might lie ahead 50 years from now... or even in 2100? We consider several possible scenarios of the future, taking a number of pressing global trends and issues and using them as “lenses” through which to view the world.



# MOMENTUM SCENARIO

## Driving Forces



General continuation  
of current trends

- **Economy** – Concentration of wealth/activity in mega-regions
- **Technology** – Technology change favors gradual not disruptive changes
- **Politics** – Slow adoption of new transportation funding mechanisms, stymies investment
- **Society** – Aging, more diverse population grows slowly and favors urban areas
- **Environment** – Environmental changes stay manageable

**Presenter reviews how possible drivers of change listed on the slide might play out in the Momentum Scenario and asks the following questions to prompt thinking:**

**What are possible transportation implications in this scenario?**

- Is there modest VMT growth?
- Does congestion stay at similar levels?
- Is there less federal funding?

# GLOBAL CHAOS SCENARIO

## Driving Forces



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Worldwide financial instability leads to negative growth. Extreme weather increases its impact.

- **Economy** – Growing global financial instability; trade wars, another Great Recession
- **Technology** – Technology advances are minimal due to instability
- **Politics** – Isolationist policies hinder economic growth
- **Society** – Population grows slowly and favors urban areas
- **Environment** – Increasing and visible impact of climate change

**Presenter reviews how possible drivers of change listed on the slide might play out in the Global Chaos Scenario and asks the following questions to prompt thinking:**

**What are possible transportation implications in this scenario?**

- Does VMT plunge due to economic crisis?
- Are there infrastructure closures?
- Does congestion stay at similar levels?
- Is there less federal funding?

# TECH TRIUMPH SCENARIO

## Driving Forces



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New tech radically changes transportation. Economy booms and U.S. becomes more self-reliant.



- **Economy** – Productivity gains unleash rapid economic growth
- **Technology** – Autonomous cars create “disruptive change”
- **Politics** – Stable economy promotes political harmony
- **Society** – Population grows and technology allows more dispersed development
- **Environment** – Economic growth puts pressure on environment

**Presenter reviews how possible drivers of change listed on the slide might play out in the Tech Triumph Scenario and asks the following questions to prompt thinking:**

### **What are possible transportation implications in this scenario?**

- Is safety greatly improved?
- Does transportation’s carbon footprint become smaller?
- Does a shift to life and work online push down VMT and congestion, or...?
- Do economic prosperity and driverless cars increase VMT?

# GENTLE FOOTPRINT SCENARIO

## Driving Forces



Public demands low-impact choices. Regulations reduce consumption, increase government control.



- **Economy** – Many economic goals and aspirations are limited by efforts to make society more sustainable
- **Technology** – Energy consumption reduced
- **Politics** – Public consciousness and political will shift toward action on climate change
- **Society** – Substantial regulation and greater social and economic control
- **Environment** – Droughts and super storms plague U.S.

**Presenter reviews how possible drivers of change listed on the slide might play out in the Gentle Footprint Scenario and asks the following questions to prompt thinking:**

**What are possible transportation implications in this scenario?**

- Is there an expansion of high-speed rail, transit, bike and pedestrian networks?
- Are there new sustainable solutions and regulations?
- Does a new view on land use planning redefine transportation investment?



## POLICY QUESTIONS FOR ALL SCENARIO GROUPS

- **WHAT** do you think is most relevant and concerning about your scenario for <agency name>?
- **HOW** might transportation needs change in the future by scenario?
- **WHERE** are we most vulnerable or unprepared in relation to the demands of this future world?

The overall session facilitator asks the breakout groups to discuss the policy questions listed on the slide based on their assigned scenario. Allow at least 15 minutes for this group discussion; more if time allows.

See Table Facilitator's Guide for additional follow-up questions to prompt discussion if necessary.

Facilitate responses back from each group.

**Note – The policy questions for the workshop vary by audience and planning effort. In this example, the focus is on statewide long-range planning.**

# PART 2

## The Impact on Transportation



Now, let's consider the impact of your scenario on transportation.



## POLICY QUESTIONS FOR ALL SCENARIO GROUPS

- **HOW** does <agency name> mission or role change across the future scenarios?
- **WHAT** would change about how our partners or stakeholders value transportation?
- **WHAT** is most important for <insert agency> to address?

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# WHAT ELSE?

What are you seeing in the future?



Although we may see different challenges and opportunities across multiple future scenarios, through the Foresight 750 Series we can find new insights and tools for informing our planning processes and managing the future.





**THANK  
YOU**



**See you in the FUTURE!**