



Overview

Workshop Objectives

The Future Freight Flows workshop is an interactive full day event designed specifically for transportation planning agencies in the United States. The objective of the workshop is to facilitate discussions of potential freight infrastructure investment priorities within a region and to gather new insights from a diverse set of stakeholders. It is not intended to replace the existing decision-making process, but rather, to complement it.

This workshop uses a Scenario Planning method and a set of forward-looking scenarios developed by the Center for Transportation & Logistics (CTL) at the Massachusetts Institute of Technology (MIT) under the aegis of the Transportation Research Board (TRB) as part of the National Cooperative Highway Research Program (NCHRP).

The exercise is designed to systematically extract the insights of various stakeholders (shippers, carriers, third parties, transportation planners, etc.) about the region's freight infrastructure under different scenarios. Through this interactive exercise, the planners will gain a better understanding of the strengths and weaknesses of the current network through the analysis of different scenarios. The exercise also gives the planning agencies an opportunity to involve the private sector early on and in a constructive fashion in these investment decisions.

Why Scenario Planning?

While any type of forecasting is difficult, planning for freight transportation infrastructure investments is especially hard. Infrastructure projects of any magnitude typically take decades to go from inception to actual use. Planners must satisfy and accommodate a wide variety of diverse and vocal constituents – most of which do not want development in their location but want the benefits of better infrastructure. Because freight moves in corridors from production to consumption, the infrastructure projects also usually involve multiple modes and cross numerous jurisdictions. Finally, and most importantly, as a derived demand, freight patterns (and the resulting infrastructure) are subject to numerous exogenous and uncontrollable factors ranging from fuel costs to trade agreements to consumer whims.

Scenario Planning is a technique that overcomes the challenges associated with the long-term planning of complex projects that involve a large number of diverse stakeholders. Rather than trying to predict “the” state of the world thirty or more years in the future, Scenario Planning allows one to prepare for a range of plausible futures. This plays to the strengths of the planners and allows for comparison of strategies and investments across a variety of possible outcomes.

The workshop is very hands-on and utilizes small-group Scenario Planning techniques to encourage brainstorming and to generate new ideas. The future scenarios included in the workshop consist primarily of very generalized macro level factors but allows for customization by the organizer/facilitator to fit specific requirements.

Participants

We recommend that participation in this workshop be by invitation only. The invitees should possess valuable insights about the region's freight infrastructure, which the transportation planners want to consider when planning the investments in various freight infrastructure projects. The participants in this exercise will engage in a highly interactive brainstorming session on the day of the workshop (agenda below) and complete a brief preparatory exercise on-line before and after the workshop. All relevant stakeholders should be represented in the attendees, to include shippers, carriers, third party providers, as well as public sector planners from the federal, state, regional, or local levels.

Preliminary Workshop Agenda

The workshop is designed as a single, full-day day event. There are four recommended sessions within the workshop: Welcome and Overview, Introduction to Scenario Planning, Interactive Breakouts, and the Debrief. Each is described below.

Details for Each Session

Welcome and Overview

This session orients the attendees to the agenda and the objectives. Depending on the size of the workshop, it could include mutual introductions of all attendees. A representative from the host agency should also give a welcome and introduction.

Introduction to Scenario Planning and Potential Investments

The objective of this session is to provide a level-playing field of understanding for all participants. Indeed, most participants will not be familiar with the Scenario Planning methodology or the various investments present in the portfolio. Although participants would have received some material presenting the projects in a pre-read package, it is important to present the objective of this workshop as well as the investments in the portfolio to the entire group. In our experience, it is worth going through the scenarios and the investment decisions as a group and answering any methodology-related questions before engaging the participants in the break out session.

At the end of this session, participants will be split into up to separate groups. Each group should consist of between 6 and 15 attendees and come from a wide variety of backgrounds. Each group will be assigned a MIT facilitator and at least one facilitator from the host organization. The ideal number of groups is four. If there are more than four groups, then at least one scenario will be analyzed by multiple groups.

Interactive Breakout Sessions

Each group focuses on one scenario for the entire session. They spend the first hour being immersed in the scenario using a variety of material developed by MIT to include brochures and video. Then, guided by their facilitator, participants will then review the relevance and attractiveness of each investment in the given scenario. Their analysis will be captured along

quantifiable metrics – previously determined by the workshop organizer. The local facilitators will gather all the data during the break and format it so it can be presented after the break.

Debrief and Discussion

After a break (or lunch) the entire group reassembles. Each group presents their findings to the other groups to include key insights and how each investment fared in their assigned scenario. Each presentation will conclude by presenting the quantitative results for each metric. Participants, from other groups, can then either confirm or amend the results found by the presenting group.

The MIT team will finally present the amended scorecard for all investments across the scenarios. Participants will then have a final opportunity to comment the scorecard until a consensus is reached. The MIT team, in collaboration with the workshop organizer, will then drive the discussion around potential interpretation of the final scorecard. Typically, this session revolves around identifying the projects that belong to one of the following three categories:

- *No brainer*: projects that have a positive impact in all scenarios
- *No regret*: projects that have a positive impact in some scenarios but a neutral one in others
- *No gainers*: projects that have overall a negative impact across the scenarios

The proposed full day agenda for the workshop is shown below. It can be modified to as needed.

8:00 – 8:30	Registration and Sign In
8:30 – 9:00	Welcome and Overview to the Day
9:00 – 10:00	Introduction to Scenario Planning and the Potential Investments
10:00 – 10:30	Break
10:30 – 12:30	Interactive Breakout Sessions
12:30 – 1:30	Lunch break
1:30 – 3:30	Debrief and Discussion
3:30 4:00	Wrap Up

Pre-Workshop Activities

Several decisions need to be made prior to the workshop. A facilitator or host needs to be appointed. This person (or people) along with assistance from the MIT team and other organizations will determine the specific details of the workshop to include:

- Specific Region in Question – this sets the boundaries of the discussion and can be as large as the United States or as small as a Metropolitan area. It can be within a state or include multiple states. Regardless of the region, the host should consider how surrounding, adjacent or other areas interact with the region in question.

- Set of Candidate Investment Bundles, Corridors, or Opportunities – the workshop attendees will be asked to prioritize, vote, or rank these potential investments within the region in question. These can be actual projects, modal corridors, or any other set of potential investments. They need to be of significant size to warrant discussion from the larger set of stakeholders.
- Inviting Participants – the workshop is designed for anywhere from a dozen to a hundred attendees. They should be drawn in equal proportions from both the public (multiple levels if possible) and private (shipper and carrier) sectors.
- Securing the Necessary Facilities – the workshop requires a large room where all participants can sit together as well as additional breakout rooms (one for each team). Each room must have its own audiovisual capabilities.
- Customize the Scenarios – the facilitator should work with the MIT team to tailor the scenarios to better fit the region in question as well as the strategic question.
- Distribution of Collateral – the workshop requires some pre-reading by each of the attendees. This should be distributed ahead of time so participants can become familiar with the objectives of the workshop and the general methodology.

Next Steps

To find out more information on Future Freight Flow Workshops, please contact Dr. Chris Caplice (caplice@mit.edu) 617-258-7975.