FACILITATOR'S GUIDE

time activity

(30 mins)	Registration and Sign In
(15 mins)	Welcome and Project Overview (Host)
(15 mins)	Overview of Freight Infrastructure Elements (Workshop Planning Manager)
(30 mins)	Introduction to the Scenario Planning (Lead Facilitator)
(10 mins)	Break and report to breakout grouprooms

(45 mins)

SCENARIO IMMERSION: (~30 minutes) **Mindstate 1** (Future/Known)

INTERACTIVE WORKSHOP

- Tell the group "For the next 45 minutes you will be living in the <scenario name> world in year 2037." Ask "Have you read the scenario?"
- Ask participants to "describe the world." Go around the room and ask different people. The two goals are: (1) get people talking and (2) start highlighting key aspects/facets of that scenario.
- Mentally cross items off the list of important facets of your scenario as people bring them out. After about 10 minutes, the audience should have hit most of the major points.
- Say, "Now that we understand the world we are living in, let's check our news..."
 Play the video.
- After the video, ask "How has the newscast changed or reinforced your thoughts on the scenario?" The goal here is to reemphasize the key points.
- If the participants have missed any key point, ask them "what do you think about..?"

SCENARIO IMPLICATIONS: (~15 minutes) **Mindstate 1** (Future/Known)

- Ask: How does the freight environment in <area under workshop scope> look like in this scenario?" (No right/wrong answers here. We are looking for individual insights. There are three goals: (1) everyone gets to contribute, (2) no one is dominating the group, and (3) people are not talking nonsense.
- The group should be talking about some of the following things
 - » Macro freight environment (global vs. local)
 - » For the freight (i) originating from, (ii) coming into and (iii) passing through <area under workshop scope>: volume, value density, origin, destination, and mode.
 - » Change in the preference for different modes (roads, rail, water, air)
 - » Relative prices and availability of various energy sources; socio-political preferences for energy sources

» continued on back

Explanation of	MINDSTATE	1 (Futi
the Mindstates:	LIVING IN	2037
	STATE OF THE FUTURE	Known

IINDSTATE	1 (Future/Known)	2 (Now/Known)
LIVING IN	2037	Today
IE FUTURE	Known – assume scenario occurred	Known – assume scenario occurred

Key Characteristics of each Scenario

Given below are the key characteristics of each of the four scenarios. The facilitator should ensure that his/her breakout group identifies these during the immersive part of the breakout sessions.



- □ Significant global trade that involves most countries— high level of collaboration across nations.
- Very high volatility in the supply of goods, currency values, and commodity prices.
- ☐ High level of virtual trade (intellectual property).
- Supply chains are very versatile yet reasonable in cost.
- Energy is cheap and available, yet the prices are highly volatile.

- Distributed global manufacturing footprint for most large companies.
- People prefer to live in large and dense cities—mega-cities are fast growing.
- ☐ Global companies achieve and leverage economies of scale.
- Governmental regulations exist mainly to support global trade.



- Government actions to prioritize meeting of local resource needs have created mostly selfcontained blocs across the world. US is in NAMEC (North American Economic Community).
- □ People and goods move freely between the United States, Canada, and Mexico. People live, work, and retire anywhere within bloc.
- NAMEC is energy independent from natural gas (#1 source), coal (close 2nd), and renewable energy (~20% of total energy mix).
- Manufacturing has returned to NAMEC.
- Economic blocs are strong clusters. Freely flow of goods within blocs but limited between—

- mainly commodities not available within that bloc.
- Currency prices are stable within and across blocs.
- Energy prices are high but stable.
- □ Society and businesses are environmentally conscious—companies look to reduce waste. Environmental regulations are strong, but are bottom-up (instead of top-down as in OWO).
- Political regulations are strong. They have created blocs but seek to facilitate free flow within blocs.



- ☐ The world has transformed into many self-sufficient clusters—countries and regions.
- Population is dispersed. The greatest population growth occurs in mid-sized cities.
- People prefer personalized and customized products.
- ☐ The US is energy independent, mainly through natural gas and nuclear energy.
- ☐ Technology allows material to be maintained in the raw form until when needed for production (which is done close to the market).
- Intellectual property is in smart materials and technologies that allow postponed production.
- Markets are mostly regional with demand being met by local supply.

- ☐ Technological innovations have lowered economies of scale so that customized production in small batches is economically sound.
- □ Supply chains mostly carry undifferentiated/ raw material for long distance and differentiated goods for short distance. (Undifferentiated material need not be cheap).
- People reuse & recycle—technology enables better recapture of the raw materials.
- Regulations focus on protecting intellectual property.
- Regional governments' compete to make their region more attractive for businesses investment.
- There is a growing "digital divide" between blue collar and no-collar workers.



- □ Vital resources—energy, water, minerals, etc.—are scarce.
- ☐ Governments have created the World Sustainable Trade Organization (WSTO). It has both reach and teeth and is seen as crucial in keeping order and peace.
- ☐ Global trade has transformed, from chaotic market-based globalization to an ordered, less volatile and more predictable process.
- Although the invisible hand of the market still decides 'what' and 'where' to produce, it is the visible hand of regulation that dictates the 'how'.
- Firms have adapted to a highly regulated environment.
- ☐ The objective of the WSTO regulations is to achieve a long-term global solution, not short-term firm profits.

- Most governments lobby the WSTO heavily to sway the regulations to favor their own resources and requirements.
- ☐ Government agencies at all levels (federal, state, local) have enacted regulations on emissions, sewage, recycling, garbage, and most other aspects. Cities grow bigger, yet the per-capita environmental impact decreases.
- □ Government discourages the home delivery of small/cheap packages through taxes and fees. Consolidation centers emerge in cities, to aggregate deliveries.
- Manufacturers have created large-scale production clusters and ultra-efficient supply chains.

time activity

(90 mins)

INDIVIDUAL VOTING: (~20 minutes) Mindstate 2 (Now/Known)

- Ask "Pull out the letter-sized paper in your folder called "Freight Infrastructure Segments."
 This shows <number of segments> chosen for today's exercise." Make sure everyone has the maps.
- Say, "Now, come back to <workshop date>. Think about which of these segments we need to invest in TODAY to be ready for <scenario name> in year 2037." Give instructions to complete the Individual Investment Decision forms. The participants first vote privately on these forms and then publically with chips. Hand out the positive and veto chips. Explain that they can put as many positive chips as they wish on as many elements as they wish. Each chip counts as one point and the more chips means it is more important. Each participant must use at least one and no more than three negative or veto chips.
- After about 5 minutes to think and write, tell them to place chips on the board

take break

BRIEF BREAK (10 minutes) – count the chips

• Display the group's vote to the entire group. Everyone should be able to see the number of invest points and vetoes assigned to each segment.

GROUP DISCUSSION AND CONSENSUS: (~20 minutes) **Mindstate 2** (Now/Known)

- Facilitate the discussion based on the votes. The goal is to understand the rationale behind the investment decisions made by the individuals.
- Prioritize the segment discussion by the interesting segments, in the following order:
 - » Segments with both "Invest" and "Veto" chips
 - » Segments with maximum "Invest" points
 - » Segments with maximum "Veto" chips
 - » Segments with no or very few chips (either "Invest" or "Veto" chips)
- Ask, "Does anyone want to change their vote?" Allow people to change votes accordingly.
 Change chips and display the final score.

IDENTIFYING INITIATIVES: (~35 minutes) **Mindstate 2** (Now/Known)

- Ask "Now let's try to identify some actionable initiatives we need to take TODAY to prepare for this scenario." Have the group brainstorm nominally with sticky pads – one initiative per sticky note. Ask the individuals to put the sticky notes on the poster pad.
- After 5-10 minutes ask, "I need two volunteers to report out to the larger group." Have the group brainstorm out load to consolidate and identify up to five initiatives for the scenario.

(45 mins)

Lunch

(2 hrs)

Ask everyone to turn in their questionnaires.

CROSS-SCENARIO SUMMARY: Reveal videos of all scenarios used (30 minutes)

 Have everyone sit with his or her scenario teams. Show scenario videos for all scenarios used. Provide short overview of all Scenarios – level setting

PRESENTATION OF RESULTS AND INITIATIVES BY SCENARIO

(~10 min. x <number of scenarios used>)

- Each scenario team will then describe the five initiatives they identified
- Encourage cross-discussion and questioning from other teams

CROSS-SCENARIO DISCUSSION OF INITIATIVES (45 minutes)

- Show the slidewith invest & veto results for all segments across the scenarios
- Discuss robust and contingent investments
- Ask "After this discussion, please now pick one segment that is the most critical for the future"