Creating Connected Vehicle Pilot Deployment Concepts

Moderator:

Jeff Spencer (FTA)

Purpose of this Session

- **Describe the Pilot Deployment Concept Development Process**
  - Identify Local Needs
  - Set Performance Goals
  - Select CV Applications That Work Together Meet Those Goals

- **Provide Example Pilot Concepts from Hypothetical Locations**
  - Hypothetical, but realistic examples of localities applying the pilot deployment concept development process

- **Examples Are Technology and Communications Media Neutral**

- **These Examples Are NOT Templates**
  - USDOT does not seek pilot deployments identical to these examples
  - USDOT seeks pilot deployments tailored to local needs and goals

Pilot Deployment Concept Development Process

① NEEDS	→	② GOALS	→	③ CV APPS

- **Needs**
  - Driven by the needs of multiple stakeholders
  - Related to one or more safety, mobility, or environmental issues

- **Goals**
  - Directly relate to needs
  - Quantitative, measureable, meaningful
  - Concise list of a "few good measures" with stakeholder buy-in

- **CV Apps**
  - Selected to work together to cost-effectively meet pilot deployment goals
  - Integrated into operational practice as permanent deployed features

Deployment Concepts in this Session are Hypothetical Results of a Local Process

- **The Pilot Deployment Concept Development Process is paramount, not the concepts**

- **Example Pilot Deployment Concepts in this Session are:**
  - Used only to illustrate the pilot development
  - Hypothetical and do not reflect preferred deployment concepts
  - Realistic enough to surface related goals and needs, and potential synergies from multiple connected vehicle applications

- **These Examples Are NOT Templates**
  - USDOT does not seek pilot deployments identical to these examples
  - USDOT seeks pilot deployments tailored to local needs and goals

Q: What do Downtown Sunnyside, the Halleck Expressway, the I-876 Corridor, District 13 and Greypool County all have in common?
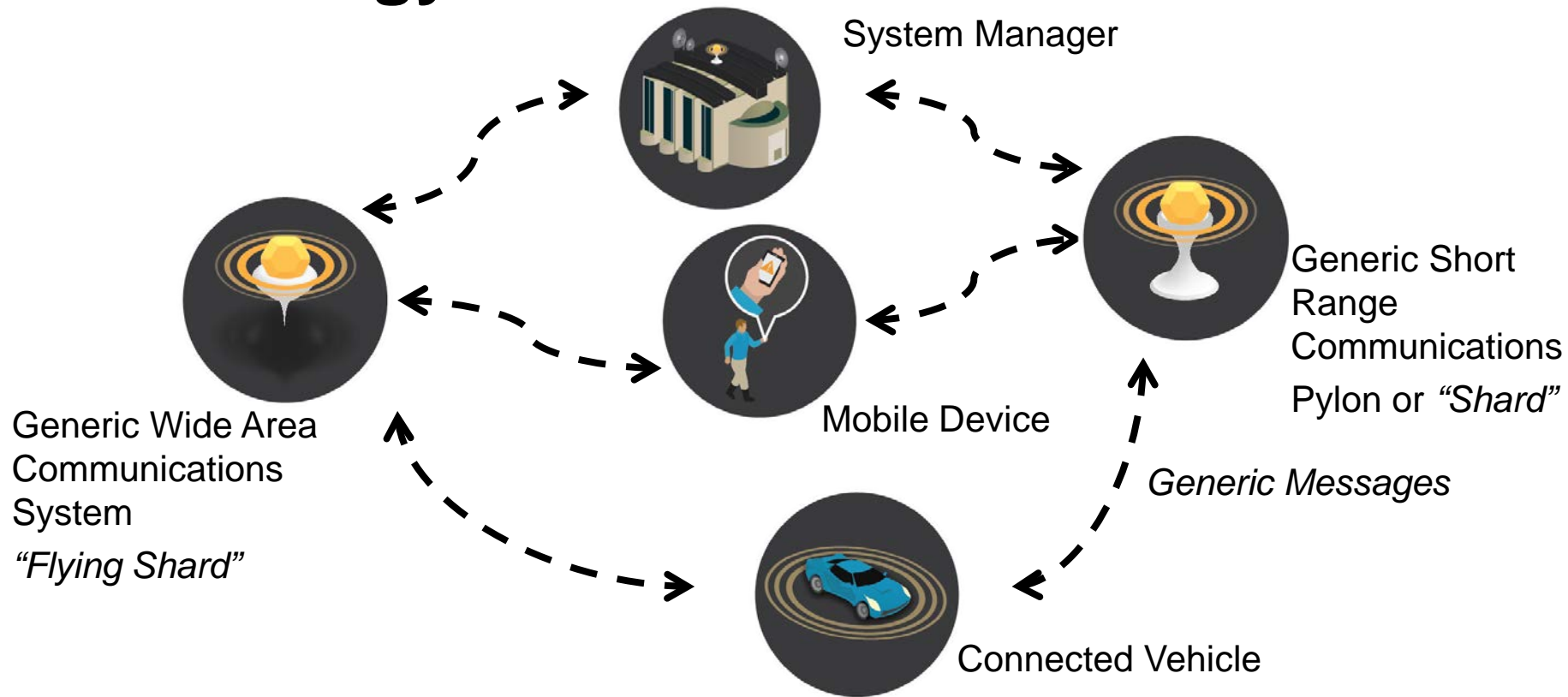
A: They are only examples, not templates

B: They are used to illustrate the pilot deployment concept development process

C: They are not real.

D: All of the above. ★

Deployment Concepts in this Session are Technology Neutral

System Manager

Generic Short Range Communications Pylon or *"Shard"*

Mobile Device

Generic Wide Area Communications System
"Flying Shard"

Generic Messages

Connected Vehicle

- **Graphics are used to illustrate the concept, not a system design**
  - Examples illustrated here are not preferred, only to show how messages are expected to pass among mobile devices, connected vehicles, and communications media

Example Pilot Deployment Concepts:
The Remainder of the Session

- Downtown Sunnyside   *Ben McKeever*
- H.W. Halleck Expressway   *Bob Rupert*
- Greypool County   *Carl Andersen*
- District 13 Connected Operations   *Gabe Guevara*
- I-876 Productivity Corridor   *Randy Butler*
- Stakeholder Q&A (25 minutes)   *Jeff Spencer*

- Each presenter will have about 15-20 minutes to talk about the each of these examples
  - We will take one or two clarifying questions specific to the example
- Please hold general questions for the end, where we have a block of time to answer questions