Before our Webinar Begins

- The webinar will begin shortly.
- This webinar will be view and listen only; **all phone lines are muted.**
- A closed captioning pod is available for those who would like to refer to it.
- Questions may be typed in the chat pod or emailed to InclusiveDesign@dot.gov. U.S. DOT will answer chat pod questions as time allows.
- To ensure connection stability, we recommend disconnecting from any VPN when using Adobe Connect.

U.S. Department of Transportation

Inclusive Design Challenge Informational Webinar

June 3, 2020

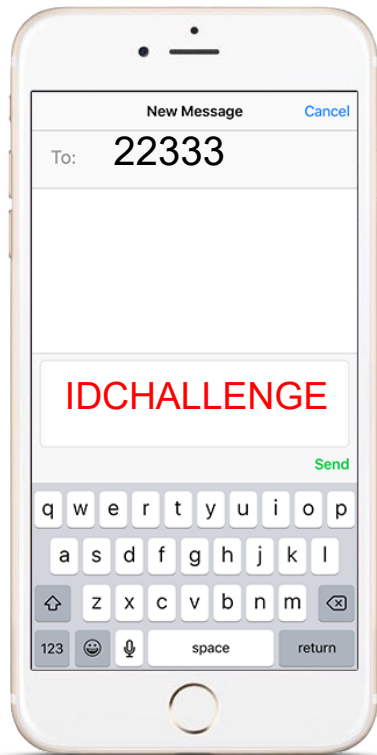INCLUSIVE DESIGN CHALLENGE
SPONSORED BY THE U.S. DOT

Webinar Logistics

- Please use the **Q&A Pod** at the bottom-left of your screen to submit questions.

  - Questions will be addressed after the final presentation, as time permits.

  - Additional questions can be submitted to inclusivedesign@dot.gov.

- Feel free to share ideas with each other in the **Networking Chat** pod.

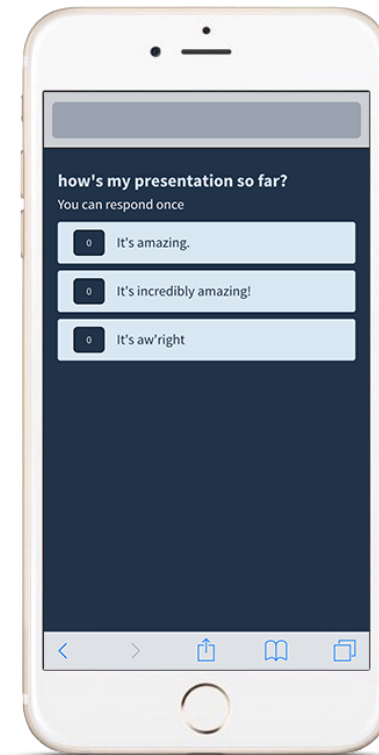- As soon as possible after the webinar, presentation materials will be posted to http://www.transportation.gov/accessibility/inclusivedesign.

U.S. Department of Transportation

Join us as we experiment with interactive polling during the webinar!

Option 1 (Easiest): Join the polling session by texting IDCHALLENGE to 22333

Option 2: View and respond to poll questions at www.pollev.com/IDChallenge

What state are you joining us from?

U.S. Department of Transportation

5

Please choose the option that best describes your interest in the Challenge:

I am interested in submitting an idea to the Challenge.

I am interested in advising a team.

I want to promote the Challenge to others.

I am not sure yet, but I want to learn more.

Presenters

Finch Fulton
Deputy Assistant
Secretary for
Transportation Policy

Sofia Gallo
Special Assistant for
Policy, Office of the
Secretary of Transportation

Lindsey Teel
Policy Advisor, Office
of the Secretary of
Transportation

Steve Polzin, PhD
Senior Advisor for
Research and Technology,
Office of the Assistant
Secretary for Research
and Technology

U.S. Department of Transportation

USDOT Secretary Chao's Priority: Expanding Access to Transportation

- USDOT is launching a new department-wide initiative to expand access to transportation for people with disabilities, older adults, and individuals of low income.
- Secretary Chao announced her intent to fund 3 new programs as part of the Complete Trip Portfolio to develop and deploy innovations in technology and further interagency partnerships to improve mobility:
  - Mobility for All Pilot Program
  - Complete Trip – ITS4US Deployment Program
  - Inclusive Design Challenge

U.S. Department of Transportation

Inclusive Design Challenge

INCLUSIVE DESIGN CHALLENGE
SPONSORED BY THE U.S. DOT

$5,000,000
PRIZE PURSE

PHYSICAL   SENSORY   COGNITIVE

Today's Agenda

- Speaker Introductions
- **Inclusive Design Challenge Overview**
- **Challenge Structure**
- Challenge Details
- Submission/Rules
- Resources & Tools for Participants
- Q&A
- Wrap Up

U.S. Department of Transportation

Overview

- The Inclusive Design Challenge seeks innovative, inclusive design solutions that make automated vehicles more accessible to people with physical, sensory, and cognitive disabilities.

- Solutions can include physical hardware and/or human-machine interface (HMI) designs.

- Individuals and teams will compete for an overall prize purse of up to $5,000,000 in a two-stage competition.

U.S. Department of Transportation

Challenge Structure
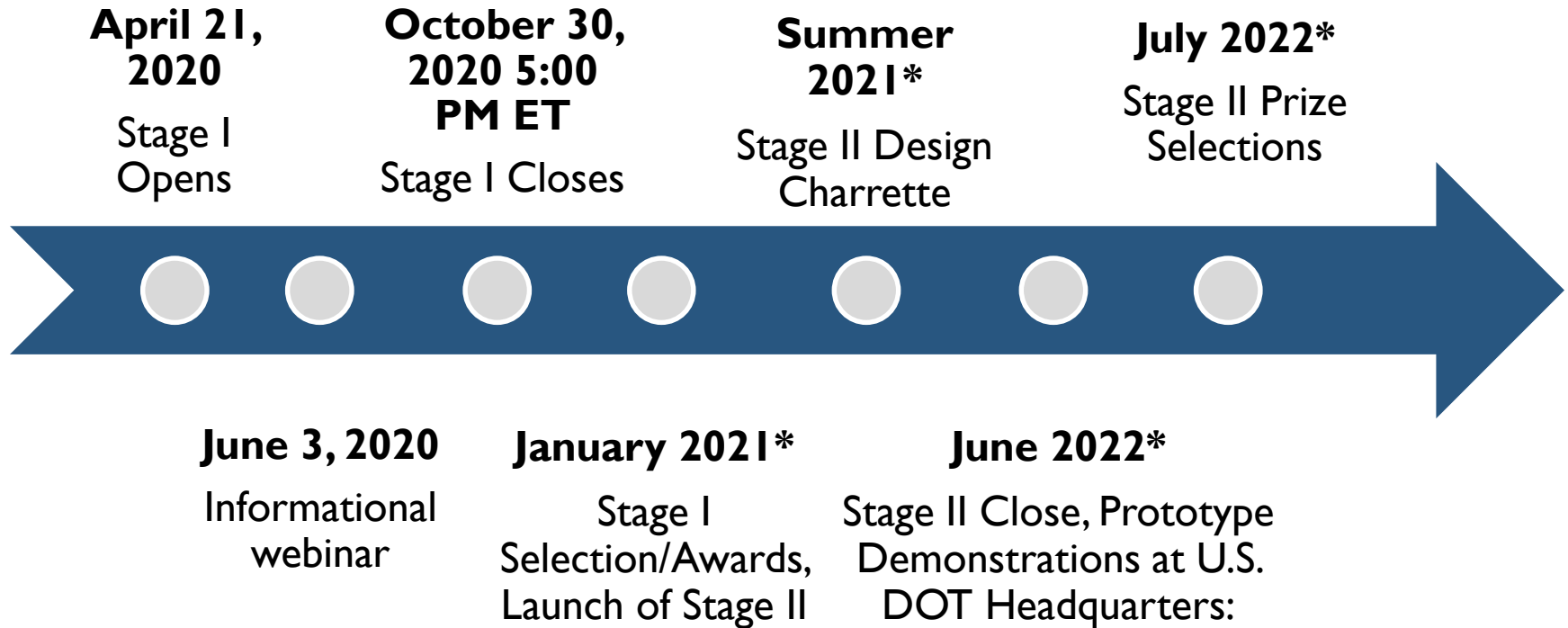
Stage I: Proof-of-Concept

- Participants will submit written proposals describing their inclusive design solutions for AVs.

Stage II: Prototype/Demonstration

- Semifinalists advancing from Stage I will build a functional prototype of their proposed solutions.

- Stage II will include opportunities for engagement with subject matter experts.

Timeline

April 21, 2020

Stage I Opens

October 30, 2020 5:00 PM ET

Stage I Closes

Summer 2021*

Stage II Design Charrette

July 2022*

Stage II Prize Selections

June 3, 2020

Informational webinar

January 2021*

Stage I Selection/Awards, Launch of Stage II

June 2022*

Stage II Close, Prototype Demonstrations at U.S. DOT Headquarters:

* anticipated, subject to change

U.S. Department of Transportation

Prizes

Overall prize purse up to $5,000,000

- Stage I prizes: up to ten $300,000 awards
- Stage II prize:
  - Winner (1st place) will receive $1,000,000
  - 2nd place receives $700,000
  - 3rd place receives $300,000

U.S. Department of Transportation

Today's Agenda

- Speaker Introductions
- Inclusive Design Challenge Overview
- Challenge Structure
- **Challenge Details**
- Submission/Rules
- Resources & Tools for Participants
- Q&A
- Wrap Up

In 1-2 words, what is the biggest opportunity you think automated vehicles present for people with disabilities?

U.S. Department of Transportation

Challenge Details to Consider

- Design
- Vehicle Platform
- End Users
- Vehicle Use
- Production Feasibility

U.S. Department of Transportation

Design

DOT seeks ideas that:

- Enable future AVs to meet the needs of people with disabilities safely, effectively, and efficiently.

  - Human-machine interfaces, physical hardware, or a combination.

  - May be proposed as standalone features or integrated into a holistic vehicle design.

- Participants do not need to focus on automating a vehicle.

U.S. Department of Transportation

Design – continued

If selected for Stage II, participants will develop their concepts into functional prototypes, which may include one or more of the options:

- Full-size physical prototype
- Software prototype
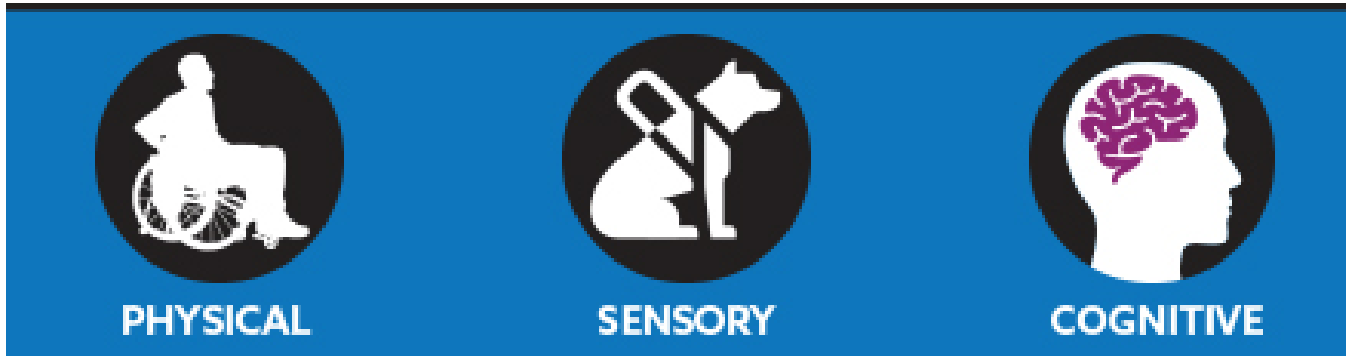- Scale physical prototype
- Virtual prototype

Vehicle Platform

- Participants have flexibility in choosing a vehicle to use as a reference when developing their solution.

- All solutions should be designed for passenger vehicles that are capable of operating at highway speeds.

- This Challenge focuses on Automated Driving System—Dedicated Vehicles, or ADS-DVs.

- ADS-DVs could either function as personal vehicles or as part of a shared private fleet.

End Users

INCLUSIVE DESIGN CHALLENGE
SPONSORED BY THE U.S. DOT

PHYSICAL   SENSORY   COGNITIVE

Vehicle Use

Participants will develop inclusive design solutions to address one or more tasks that an AV user with a disability will need to complete.

- Locating an AV
- Entering an AV
- Securing Passengers and Mobility Equipment
- Inputting Information
- Interacting with the vehicle in routine and emergency situations
- Exiting an AV

U.S. Department of Transportation

Production Feasibility

- Proposals should aim to strike a balance between innovation and near-term implementation.

- Participants are expected to discuss factors related to the feasibility of producing their solution(s), including the maturity of the underlying technology as well as cost and other production considerations.

U.S. Department of Transportation

Today's Agenda

- Speaker Introductions
- Inclusive Design Challenge Overview
- Challenge Structure
- Challenge Details
- **Submission/Rules**
- **Resources & Tools for Participants**
- Q&A
- Wrap Up

U.S. Department of Transportation

In 1-2 words, what is a challenge you expect will need to be addressed to enable use of automated vehicles by people with disabilities?

U.S. Department of Transportation

Rules

- The Challenge is open to individuals and teams (Participants) from the academic, research, and business communities.

- The Challenge Statement contains all of the official rules and regulations for the Challenge.

- Strong proposals will be well-informed by a rich understanding of user needs and industry conditions.

How to Enter: Stage I

- Click "Submit a Proposal" on the Challenge website (www.transportation.gov/accessibility/inclusivedesign)
- Complete Stage I submission packages consist of the following elements:

  - A cover page

  - A concept paper (10-page limit)

  - Appendices

  - A one-page executive summary

U.S. Department of Transportation

Judging Criteria: Stage I

Technical Merit

- Innovation
- Technical Detail and Understanding
- User-Driven
- Team

Impact/Benefit

- Inclusivity
- Potential Benefit

Production Feasibility

- Production Integration
- Risks and Challenges
- Safety Considerations
- Cost and Other Adoption Considerations

Entry and Judging: Stage II

- Submission requirements for Stage II will be provided to the semifinalists upon advancing to the next stage and will also be posted on the DOT's Inclusive Design Challenge website.

- DOT anticipates that the three criteria from Stage I will carry over to Stage II, with a focus on prototype development and maturity.

U.S. Department of Transportation

Resources and Tools

- Additional background can be found at the Challenge website: www.transportation.gov/accessibility/inclusivedesign

- Also consider engaging with:

  - Local community programs

  - National organizations

U.S. Department of Transportation

Questions?

Please enter questions into the Q&A pod

U.S. Department of Transportation

Contact Information

For additional information, please visit:

www.transportation.gov/accessibility/inclusivedesign

Submit additional questions to
InclusiveDesign@dot.gov

Thank you!

U.S. Department of Transportation