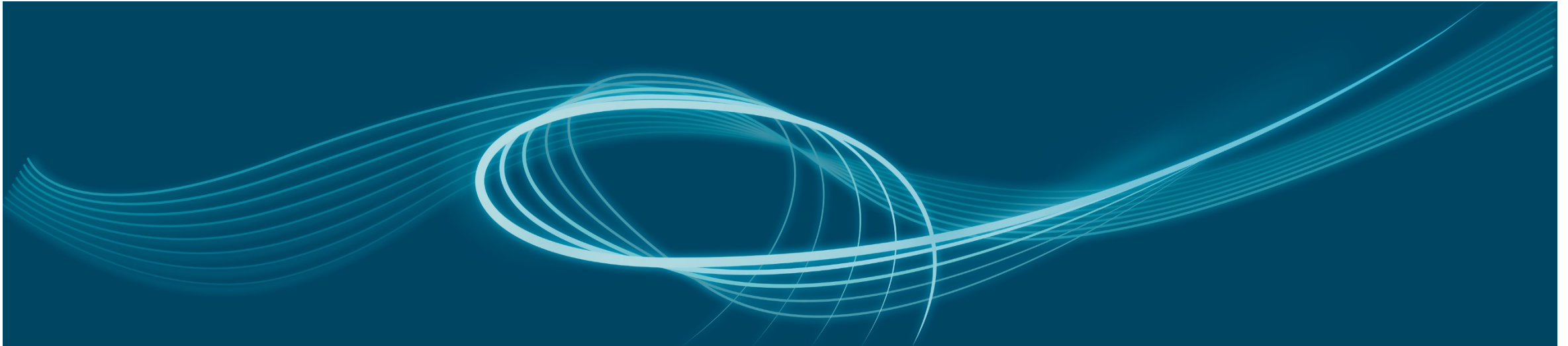


VOLKSWAGEN

GROUP OF AMERICA



Volkswagen Inclusive Mobility Initiative

Alliance of Automobile Manufacturers Workshop Series: AVs and Increased Accessibility

Workshop 3: Broader Impacts of Assistive Transportation Technologies

10 September 2019

Shani Jayant, Principal UX Designer

Inclusive Mobility Program Overview

Volkswagen Commercial Vehicles & Volkswagen Group of America are on a mission to **design vehicles and services that improve transportation and the quality of life for people with disabilities.**

This program, started in 2017, directly **engages WITH disability groups in the early stages** of designing vehicle technologies, user experience and mobility services.

We drive the U.S. effort from our Silicon Valley Campus, but are deeply networked within the **global organization** and integrated into the **requirements gathering, engineering & design processes** to Germany.

Inclusive Mobility Program Overview

Groups we've worked with:



Disability Rights Education & Defense Fund



- Working **with, not for**, people with disabilities.
- Direct engagement with organizations and experts on **design, tech, and policy**.
- Initial research efforts have included expert and user consultations on disabilities related to **mobility, vision, hearing** and **cognition**.
- We want to identify mobility challenges, and **innovate**, together.

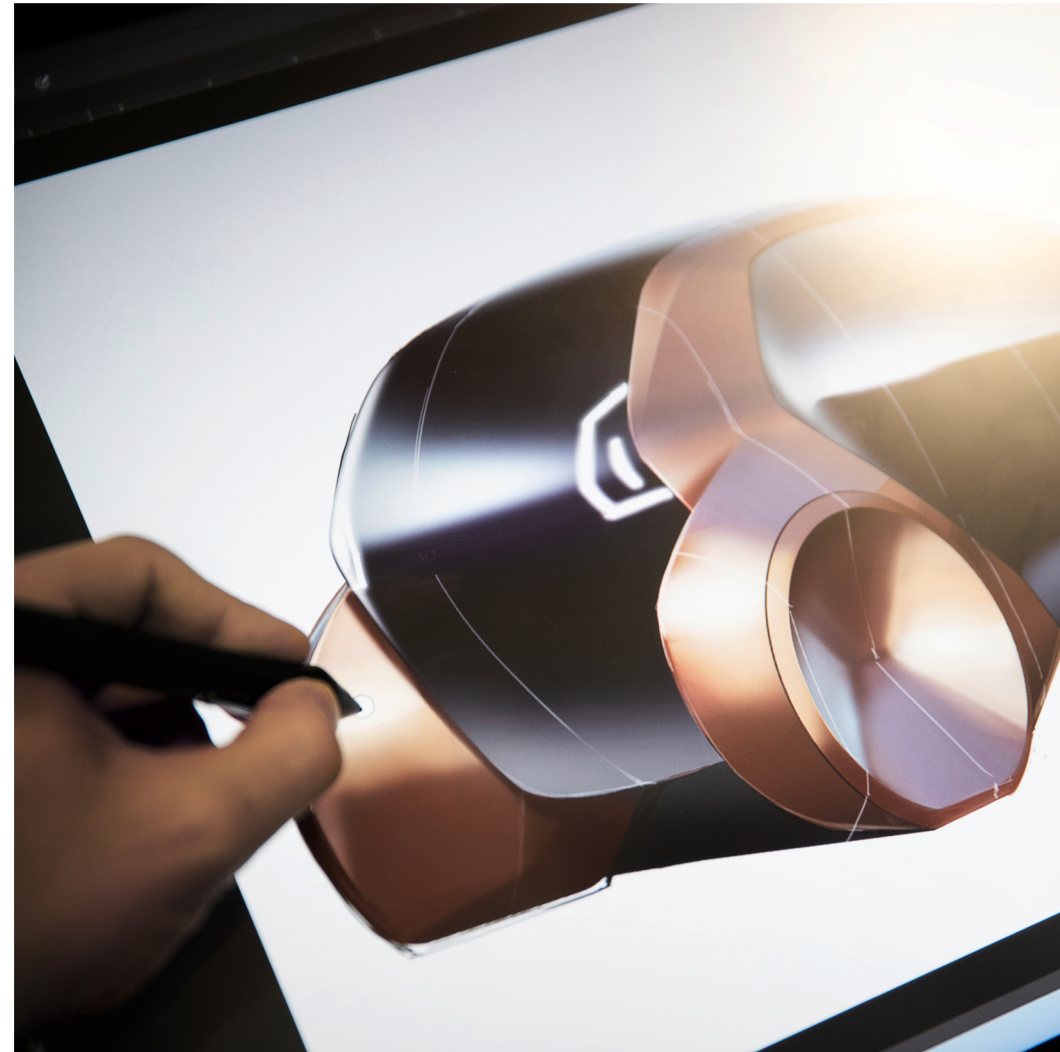
Why Now?

The new era of **electric and autonomous vehicles** is on the horizon.

There are still **some years until self-driving tech is mature** enough, but **significant efforts are required now** to insure vehicles deliver on the potential to provide increased mobility to those that are currently underserved.

Automotive OEMs need sufficient lead-time to develop new vehicle platforms that are truly accessible.

We need to **spark and drive innovation in parts of the larger ecosystem** involved in the safe and independent journeys of our passengers.



Wheelchair Self-Securement

GOAL

Wheelchair and occupant securement within autonomous and electric wheelchair-accessible vehicles (WAVs) should be possible **without assistance** from another person.

CORE PROBLEM

There are many wheelchair types and no standards that enable a **universal self-securement** solution.



Government Roundtables in Washington, D.C.

Two-day roundtables hosted in DC in December 2018, April 2019.

GOAL

Understand the opportunities and challenges of WAVs from a user, industry, and legislative perspective and identify the right solutions for self-driving vehicles.

ATTENDEES

We Will Ride Coalition, NMEDA, government agencies, standards bodies, NCART, wheelchair manufacturers, wheelchair securement providers, UMTRI, U.Buffalo IDeA Center, VWGoA, VWAG.

TOPICS

Accessible vehicle dimensions, vehicle and wheelchair safety standards, federal compliance requirements, wheelchair securement within passenger vehicles, technology and standardization, liability, and funding.



Government Roundtables in Washington, D.C.

From our conversations with stakeholders, it became clear that **wheelchair-manufacturers will need to make significant investments** and create **new standards for crash-worthy wheelchairs**.

In order to trigger these investments they would like to see:

- Clear **signals of commitment from the automotive industry**
- A **new cross-industry standard** for the physical docking interface between the wheelchair & vehicle
- Changes in the way **Medicare & insurance providers** cover “Transit” options on wheelchairs

Moving Forward- Partner with Us

We hope to find **interest amongst other OEMs** to work with us on shaping these **new emerging cross-industry standards** through SAE or other standards bodies.

Wheelchair securement is just one important topic to move forward on since automotive and wheelchair design cycles are long.

Looking ahead, we're also exploring what **other interfaces to assistive devices or tech ecosystems** may benefit from standardization. We are not looking to standardize the end user interfaces, which provide opportunities for **innovation and differentiation** amongst automotive OEMs.

Thank you!

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