

An aerial photograph of a city at sunset, showing various buildings, streets, and greenery. The sky is a mix of orange, yellow, and blue. The city is densely packed with buildings of different heights and colors. A river or large body of water is visible in the distance on the right side.

# Autonomous @ Uber: Healthy & Productive Transportation For All

November 2021

Uber

# Leveraging a Hybrid Network to Maximize Impact

- A hybrid network of AVs and conventional vehicles, operating through a platform, can help satisfy a City's many mobility and delivery needs
- AVs have many advantages-- safety, efficiency, etc. These will be most felt in **particular domains**
- By aggregating demand and partnering with (i) multiple fleets and (ii) millions of conventional vehicles, a platform like ours can extend these benefits **to unbounded areas**
- And we can build tools so AV trips positively impact those trips they may not be able to service directly.



Drivers & Couriers  
(unlimited domain)

## SDV Platform



Partner 1  
SDV Fleet



Partner 2  
SDV Fleet



Partner 3  
SDV Fleet

Uber Marketplace  
A Hybrid Network

# Platform Advantages in Promoting Transportation Equity & Health

AV deployment *should* promote broader transportation objectives

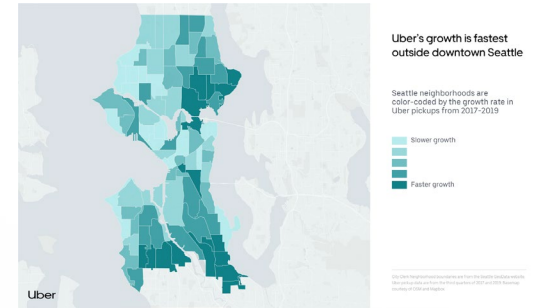
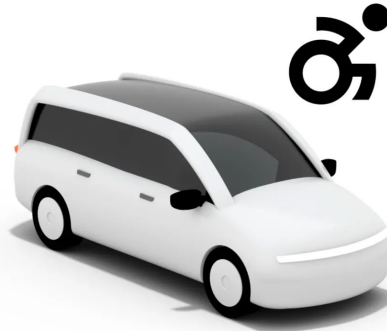
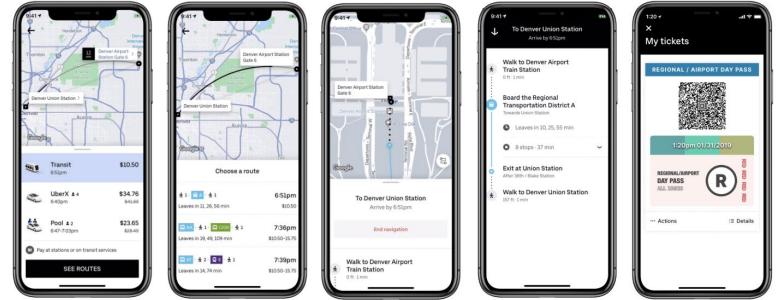
AVs should help facilitate transportation benefits for a wide swath of society. This includes attention to underserved areas, accessibility, sustainability, and integration with mass transit

## But Constrained AV Domains May Limit AV Use Cases

For the foreseeable future, AV Safety will necessitate deployment in carefully defined domains, limiting fluid redeployment to underserved areas or ready promotion of other transportation objectives.

## Uber can pursue these objectives as a hybrid platform

Our hybrid approach and scale allow us to help advance these issues, with conventional transportation available for rides that may prove difficult for a particular AV.



# Platform Solution to Promote Trips in Underserved Areas

**Right now: Uber's network a powerful tool for mobility/delivery in underserved areas**

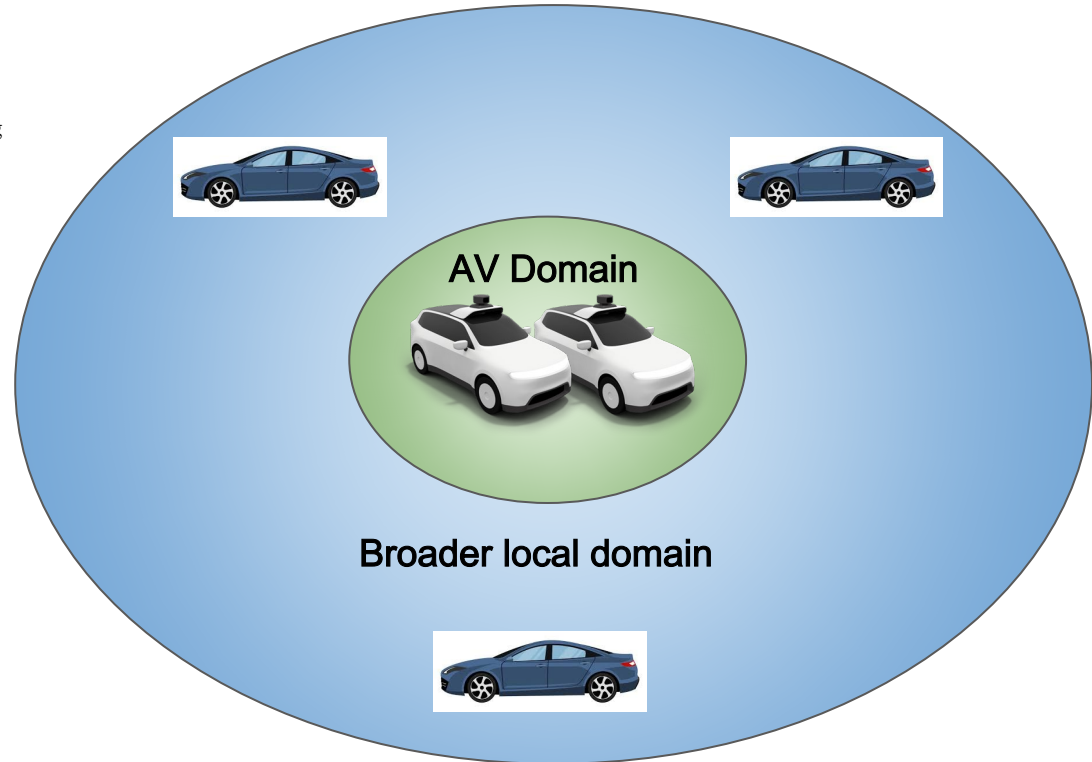
Throughout our history, Uber has contributed to communities by linking underserved areas with mobility & delivery services.

**Incorporating AVs reinforces supply for underserved areas**

In a hybrid network, deployment of domain -constrained AVs can promote broader transportation objectives through either (i) directly servicing priority trips or (ii) catalyzing conventional -vehicle trips on policy priority routes.

**Uber can demonstrate how introducing AVs benefits transportation access**

Even where AVs focus on core urban domains, Uber's platform approach can help demonstrate how this new supply leads to a direct benefit throughout a community -- including in those areas that may *not* fall within a particular AV's domain



# Platform solution for reducing AV impact on congestion

## Our platform can help maximize AV use and limit time spent empty

Our platform -- with millions of active users -- provides an unparalleled source of demand for rides and deliveries. We can help match demand with AV supply to minimize an AV's downtime, contributing to congestion while driving empty.

## We do this already

Even before introducing AVs, a platform like ours helps leverage fewer vehicles to do more trips -- reducing the number of cars clogging lanes and parking spots. Introducing AVs will further keep single-occupant vehicles off the roads.

## Uber can help advance solutions to keep idle AVs off the street

Additionally, as part of our AM&D strategy, we recognize the value of public/private partnerships in keeping AVs off the street in those minutes when they are not executing an actual trip. Our history with anticipating supply and demand in individual markets can help operators position AVs so they are ready for the next trip, without sitting on the street, or minimize that downtime altogether.



**Autonomous vehicles will increase traffic congestion before 'dramatically reducing it', says report**



# Platform solution for integration with Public Transit

## Adding AVs to a platform gives more tools to link riders with transit

AVs can help solve the “last-mile problem” and provide an efficient and affordable bridge to public transit. Or, even where AVs cannot execute on these trips, they can contribute to a platform like ours, where conventional vehicle supply then becomes available to link consumers with transit.

## Uber is experienced at building connections with public transit

With conventional vehicles, Uber is well-experienced at building the tools that help make public transit work for consumers. We can leverage this approach with AVs, setting up structures to encourage connectivity with public transit in a way that creates a series of civic benefits.



# Possible next steps

- Uber's dedicated Autonomous Mobility & Delivery team is excited to build strong partnerships with AV companies to increase transportation health in different jurisdictions by:
  - Connecting consumers with safe, affordable, accessible transportation supply
  - Reducing AV congestion through maximized efficiency
  - Deploying where AVs can make the greatest economic impact
  - Integrating with and complementing new and existing public transit
  - Filling gaps through conventional vehicles where AV cannot yet meet the public's needs
- Uber is eager to partner with public sector stakeholders to track and measure whether these policy objectives are being met.