

Envisioning Tomorrow's Sustainable Mobility Systems Workshop

Novel Transit solutions to better benefit
underserved communities
and increase mobility resilience

(Session B – On-demand transit focus)

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The image shows the interior of a bus, viewed from the passenger perspective. The seats are blue with a colorful, abstract pattern. Yellow handrails are visible throughout the cabin. The bus is moving, as indicated by the blurred background seen through the windows. A white text box is overlaid on the upper portion of the image.

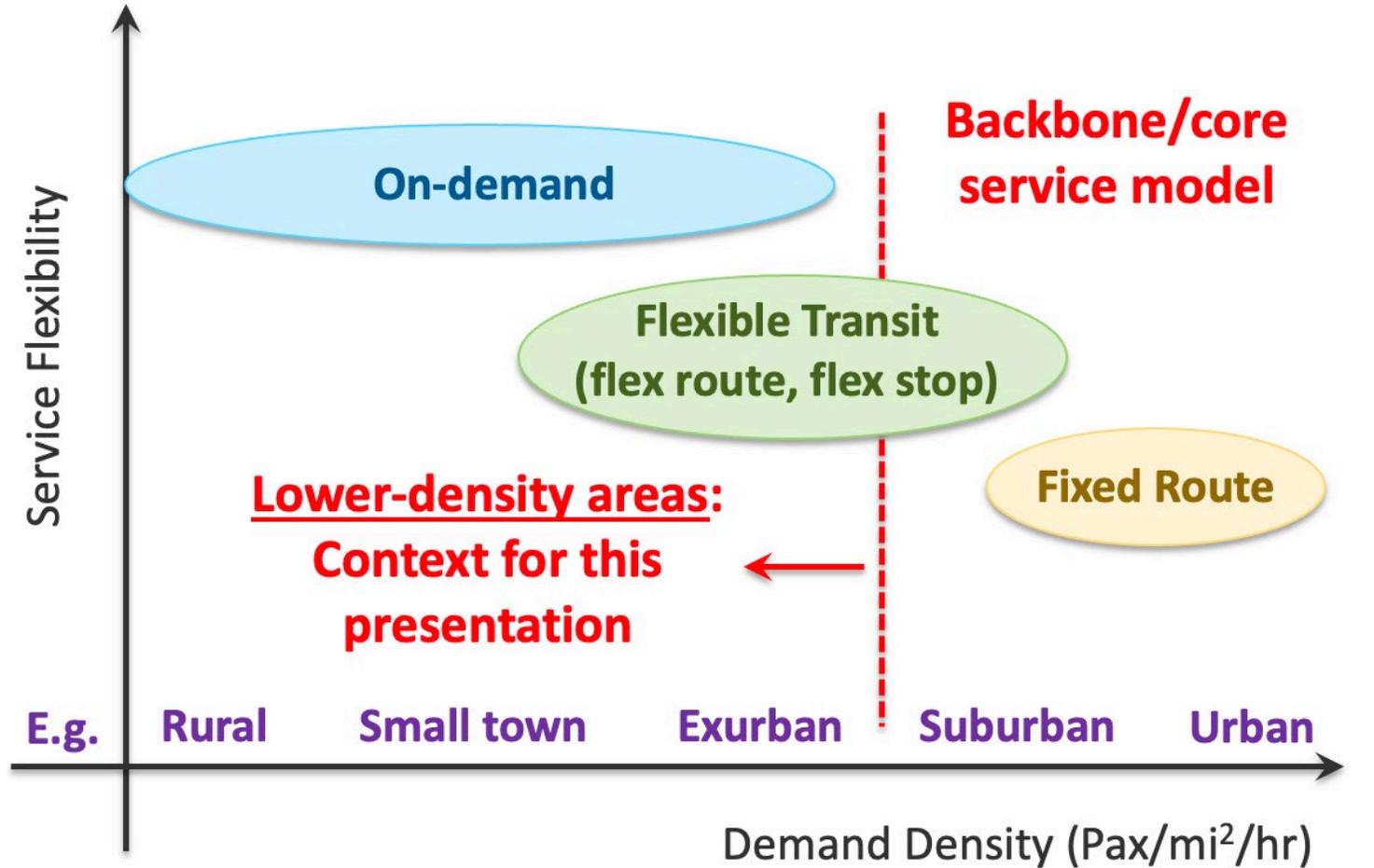
The bottom line

A 40-to-60-foot bus is not the only transit solution...

Ongoing research

National Renewable Energy Laboratory

Exploration of On-Demand Transit for Small Communities in North America



Source: Andy Duvall (NREL), 2023

O&M Costs Now and in the Future

- A large amount of transit O&M costs go to cover the salary of the person behind the steering wheel.
- Shared Autonomous Vehicles have the potential to reset this equation.

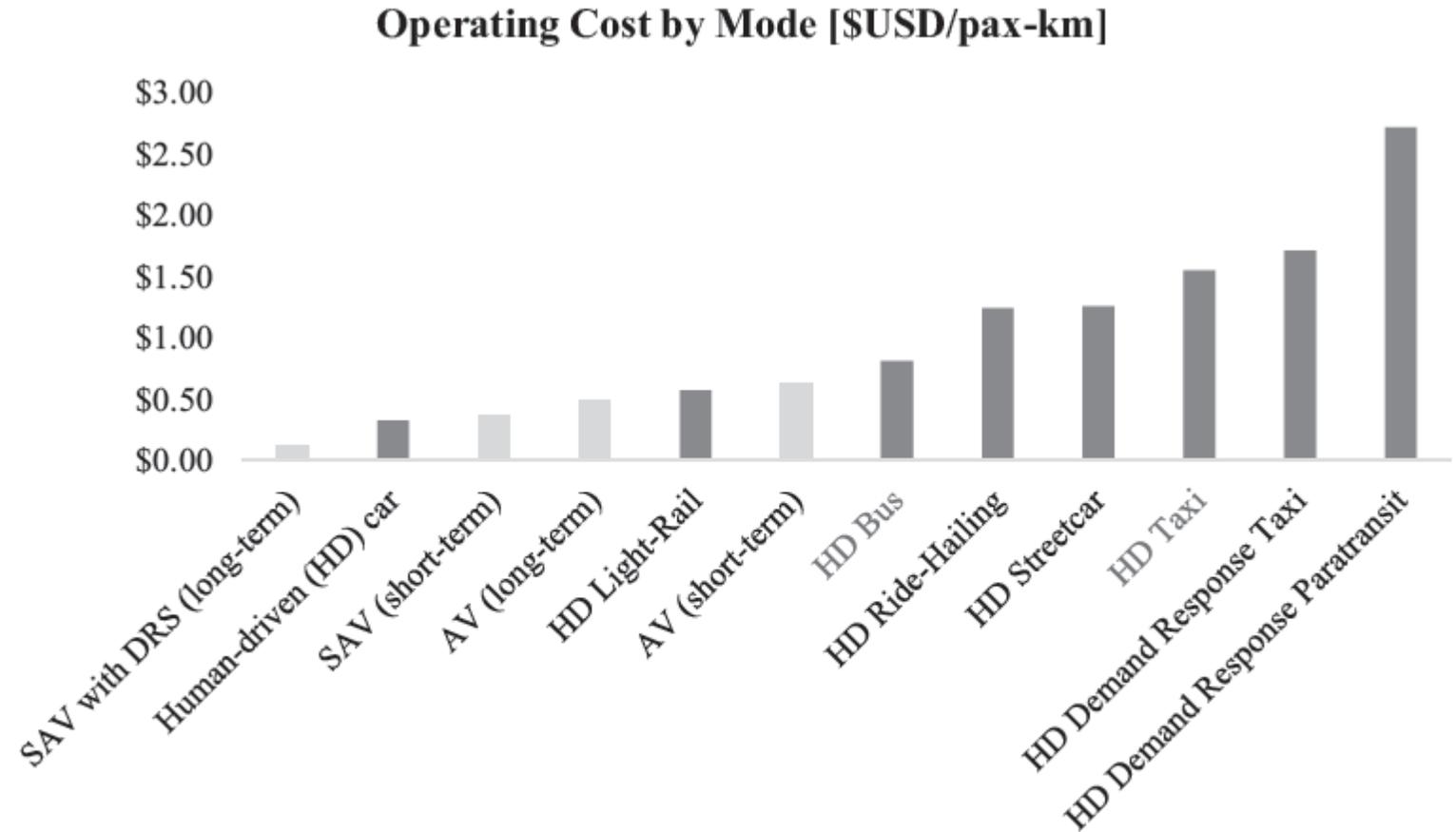
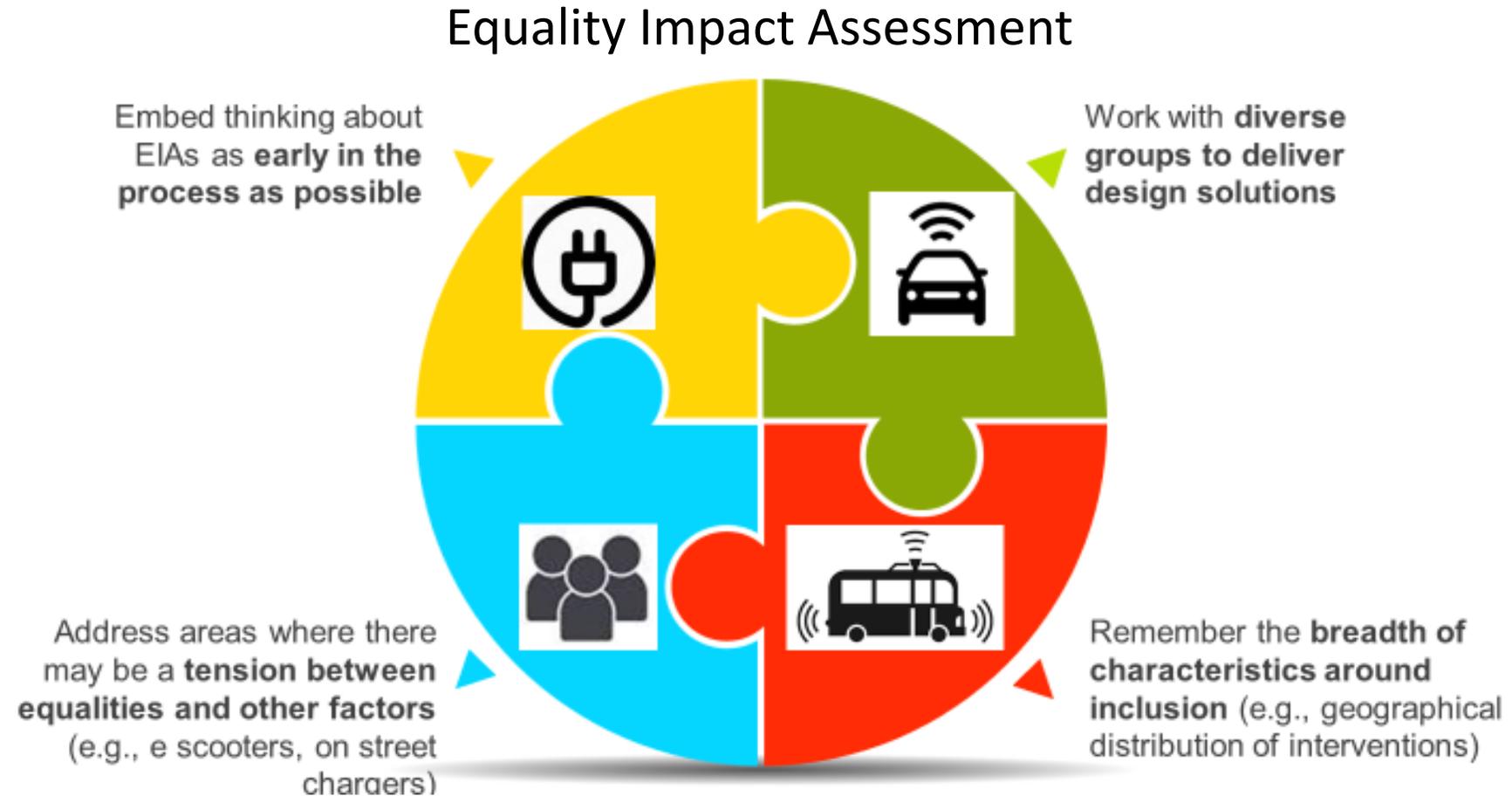


Figure 40.3 Operating costs of AV and human-driven (HD) modes per passenger-kilometer served. Lighter shaded bars indicate AV modes whereas HD modes are shown in darker bars

Source: Alcorn and Kockelman (Routledge), 2021; Litman 2020a, 2020b; Compostella et al., 2020 ; Federal Transit Administration Office of Budget and Policy, 2019; American Automobile Association, 2019 ; Fagnant & Kockelman, 2018

Equity and Mobility Resilience

- Advancements in mobility-focused technology must be accessible to the people that need these services...



Source: Sarah Sharples (Chief Scientific Adviser to DfT UK), 2022

Funding Opportunities

- Federal
 - FTA/FHWA Formula funding (e.g., STBG, CMAQ, 5307, 5311, etc.)
 - FTA started recognizing microtransit as public transportation in 2016
 - Competitive grants
- State
 - e.g., California Cap & Trade Revenues
- Local / Regional
 - Existing revenues (e.g., sales tax, TNC fees, congestion pricing, tolling)
 - New revenues (e.g., mobility on demand as part of a larger transportation package)