

# **Preparing Local Government for Driverless Vehicles**



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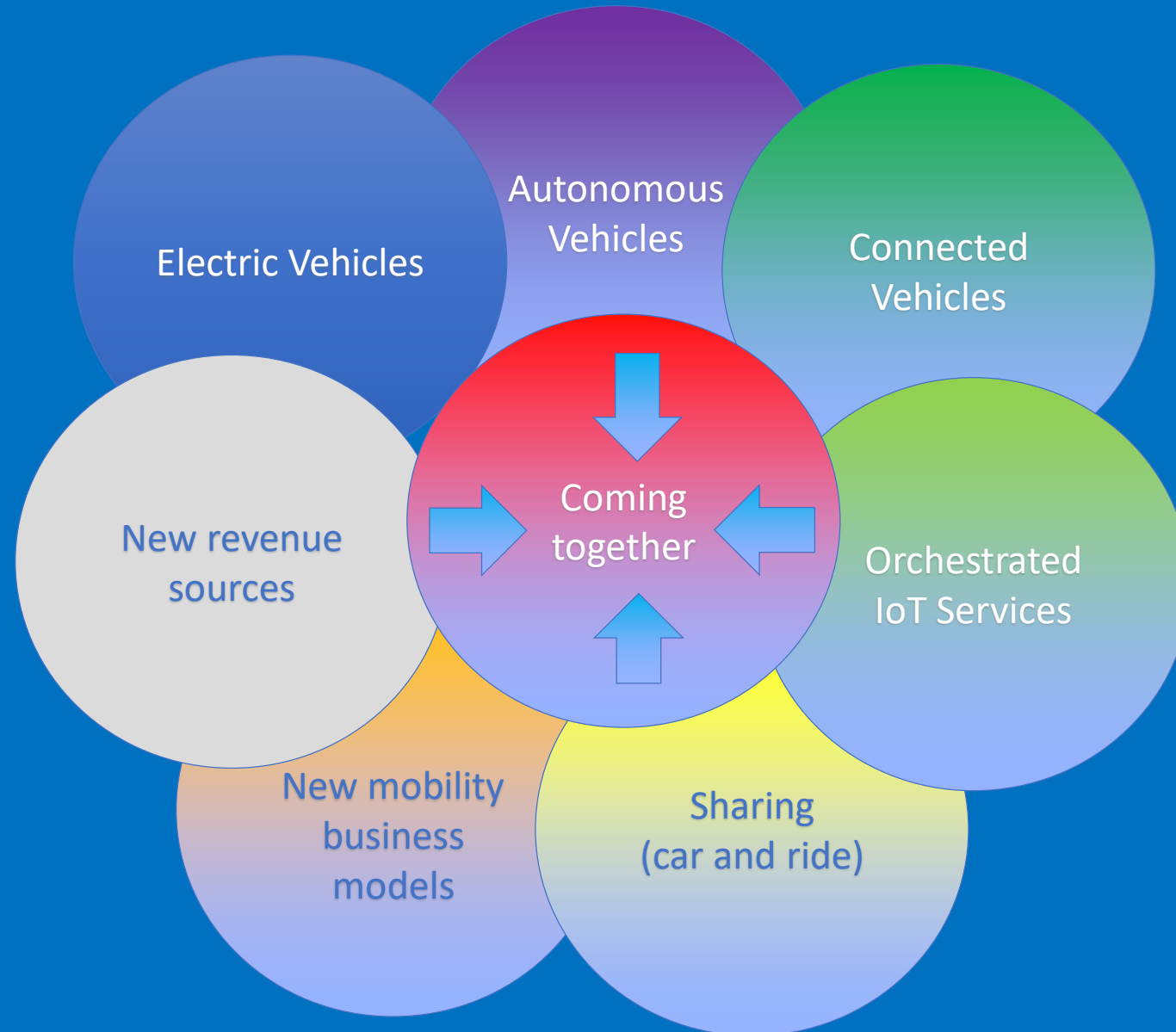
# THE BEGINNING



Imagine the future  
...rapid evolution



# Convergence



# Timeframes for highly automated pilots

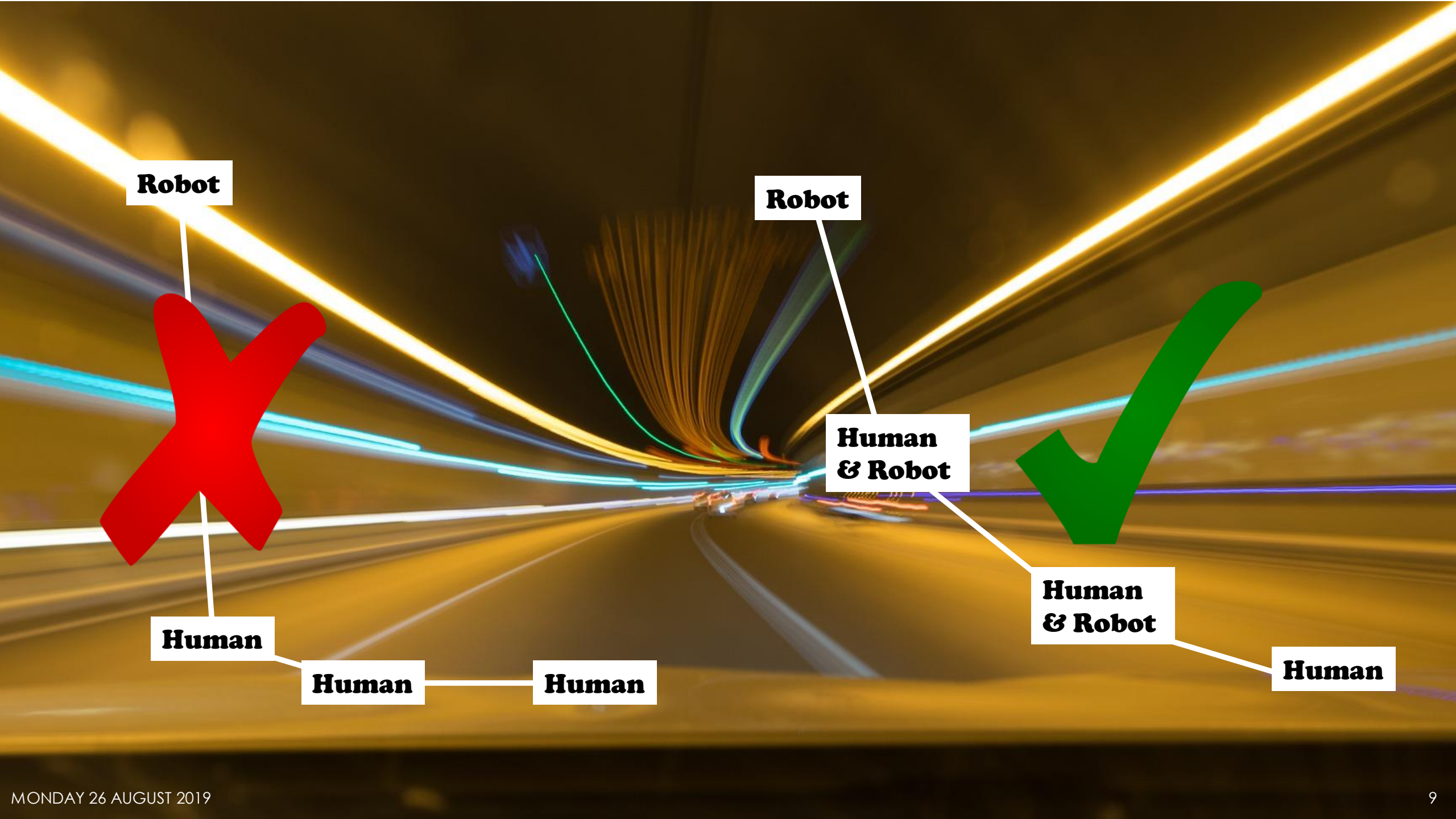
Manufacturer	Highly automated launch date (Lvl4)
GM	2020
Tesla	2020
Toyota	2020
Tesla	2020
Daimler	2020-2024
VW	2021
BMW	2021
Ford	2021
Groupe PSA	2021
Hyundai-Kia	2021
SAIC	2021-25
Renault-Nissan-Mitsubishi Alliance	2022
Honda	2025

Source: Adapted from Bloomberg New Energy Finance (July 2019)

# What can I believe?







**Robot**



**Human**

**Human**

**Human**

**Robot**

**Human  
& Robot**



**Human  
& Robot**

**Human**

# First to market...

The use cases that are simplest:

- Conditional automation
  - Highway pilot
  - Automated valet park / self-park
- Highly controlled environments (HD geofenced domains not on public roads)
  - Mining haul trucks, water trucks, cranes, etc.
  - Agricultural equipment incl. harvesters, sprayers, tree-fellers, etc.
  - Road construction equipment incl. loaders, spreaders, rollers, etc.
  - Automated industrial and warehouse distribution
- Task specific conditionally controlled
  - First mile – last mile pods, shuttles and special-purpose buses in low speed well controlled environments
  - Automated freight within dedicated routes and spaces (e.g. port access roads and intermodal facilities)
  - Automated land-based drone deliveries in low speed CBD environments
  - Point to point ride share fleet services in low speed geofenced precincts



# Automated Trucking

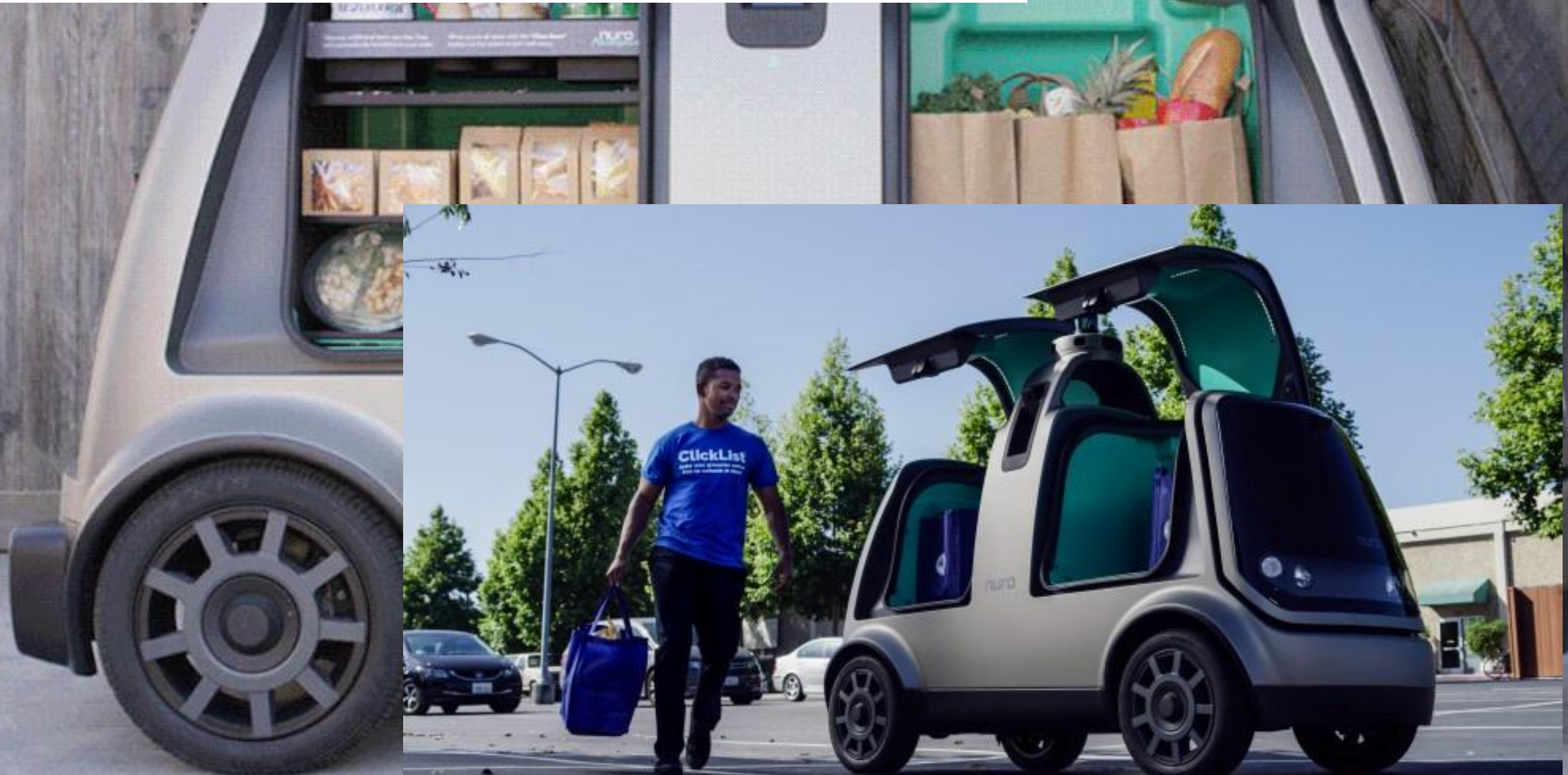




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# Automated drone distribution









An aerial night view of a city skyline, heavily illuminated with blue light. A network of glowing blue lines connects various points across the city, with several wireless signal icons (three concentric arcs) placed at the nodes of the network. The overall theme is digital connectivity and smart infrastructure.

# Automated valet parking

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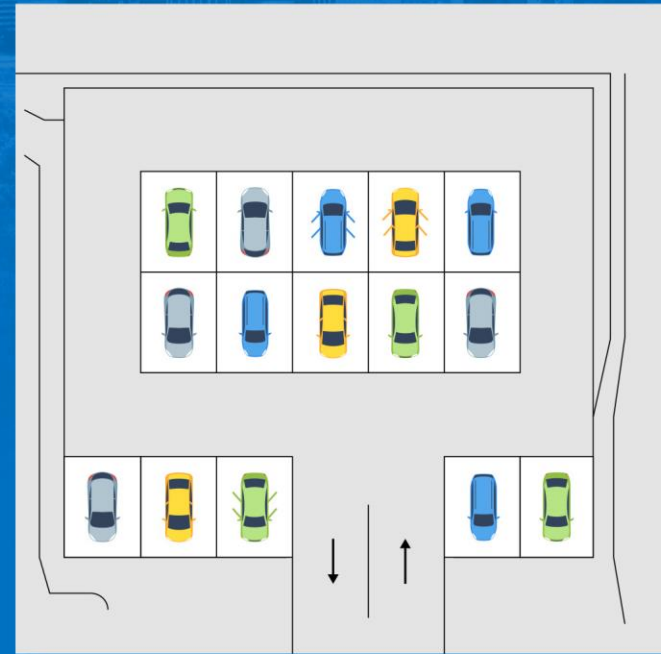


# Automated self-parking

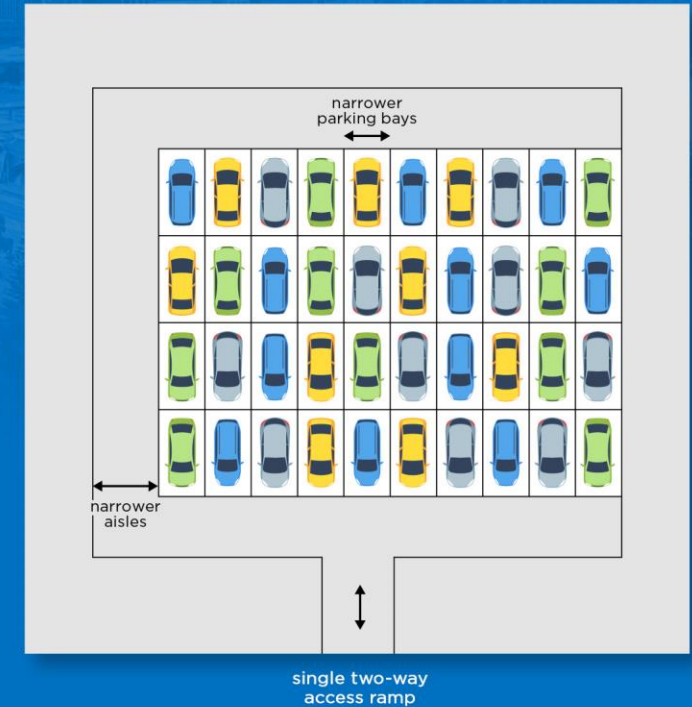
- Parking garages specifically designed for self-parking cars can take **up 60% less space** than traditional lots
- Savings on footprint, ceiling heights, finishes, stairs, elevators, lighting, security, boomgates



CONVENTIONAL  
CAR-PARKS



AUTONOMOUS VEHICLE  
CAR-PARKS





# Linking complimentary technologies






# So what should local government do about it all?





# Getting prepared

- 
- Review existing local bylaws and standards
  - Establish active policies
    - Proactive electric vehicle fleet procurement policy
    - Consider incentives scheme
    - Car sharing policy
    - Alter parking policies to reduce the supply of parking
  - Change the approach to DA approvals
    - More drop off and pick up space in new developments
    - Less dedicated parking on site
    - Design for re-purposing

# Getting prepared

- Educate, build awareness and engage in community outreach
- Identify needs and then develop infrastructure plans that are smart, adaptable and resilient
- Act on those infrastructure plans and build new infrastructure and maintain existing infrastructure so it is fit for purpose
- Assumptions, parameters and goals built into city and town planning must be updated




# Getting prepared

- Plan for potentially reduced revenue streams from infringements, etc.
- Sponsor and support testing, deployments and trials – learn by doing!
- Track and monitor development regularly
- Coordinate and connect with others, it's easier
- Start planning for it now!

Self-Driving mode

# Take that step...

A close-up, low-angle shot of a person's feet as they ascend a blue metal staircase. The person is wearing bright orange sneakers with white soles and black socks. The blue metal railings and steps create a strong geometric pattern, leading the eye up the stairs. The background is slightly blurred, showing more of the staircase structure.

The **journey** of a thousand miles  
begins with a single step.  
— Laozi



# Thank you



# LEVEL 5 DESIGN

*Inspiring Innovation in Parking and Transport*

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