# MEET THE JETSONS

Track: Data and Innovation

**In the not-so-distant future, connected and autonomous vehicles will change the way we travel, with impacts for cities, transportation agencies, and YOU.**

- What does a self-driving future look like?
- What are the implications to planners, policy makers, and citizens?
- What steps need to be taken now to prepare for this future?

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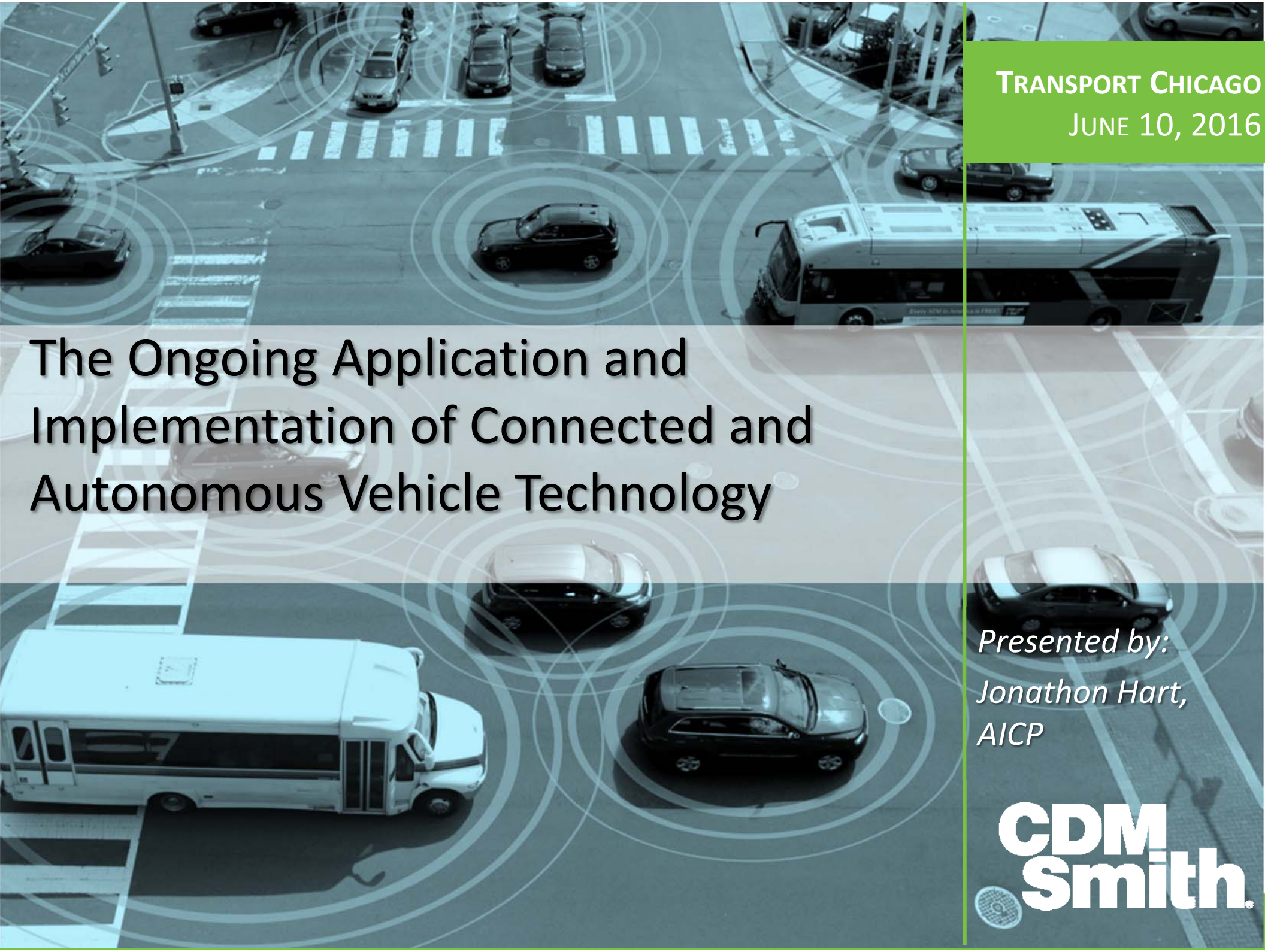


TRANSPORT CHICAGO
JUNE 10, 2016

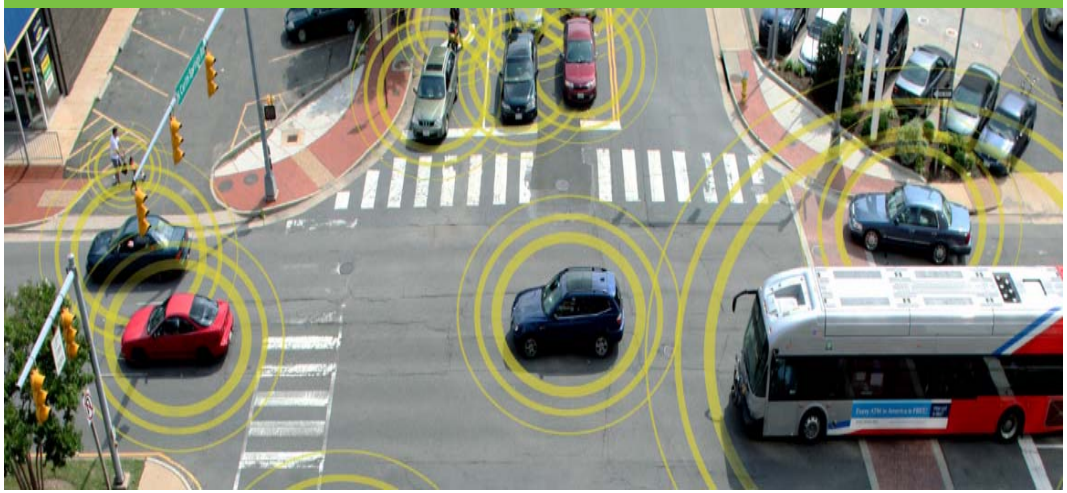
# The Ongoing Application and Implementation of Connected and Autonomous Vehicle Technology

*Presented by:*
*Jonathon Hart, AICP*

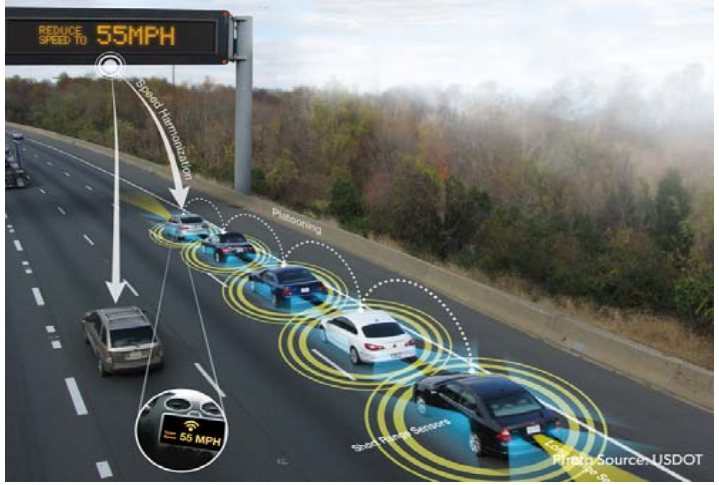
CDM Smith

# Potential Applications/Benefits of CAVs

Intersection Collision Avoidance • Signal Prioritization



Queue Warn • Speed Harmonization

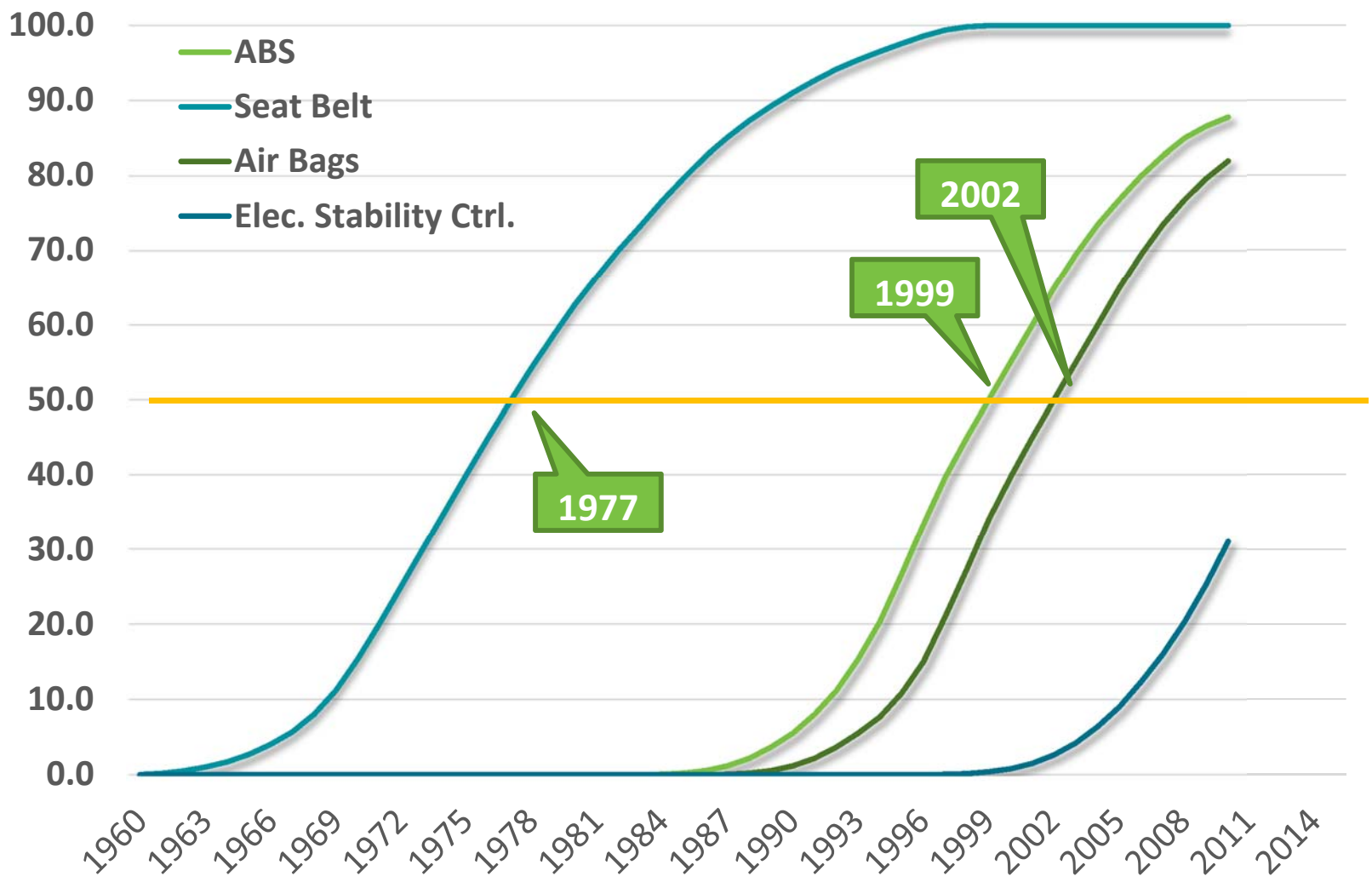



Predictive Braking • Dynamic Cruise • Blind Spot Detection

Platooning • Wireless Inspection

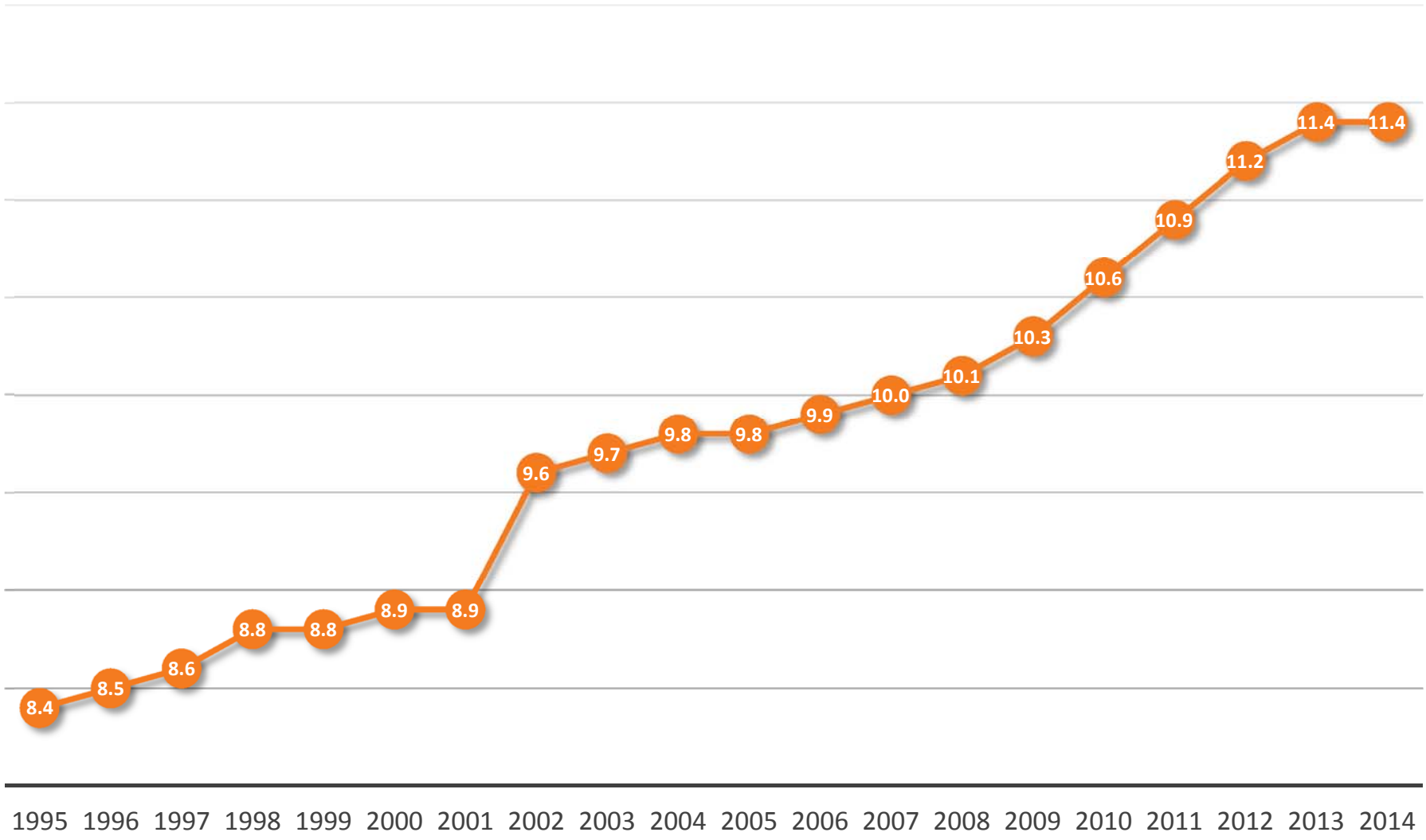
# Adoption of New Vehicle Technology

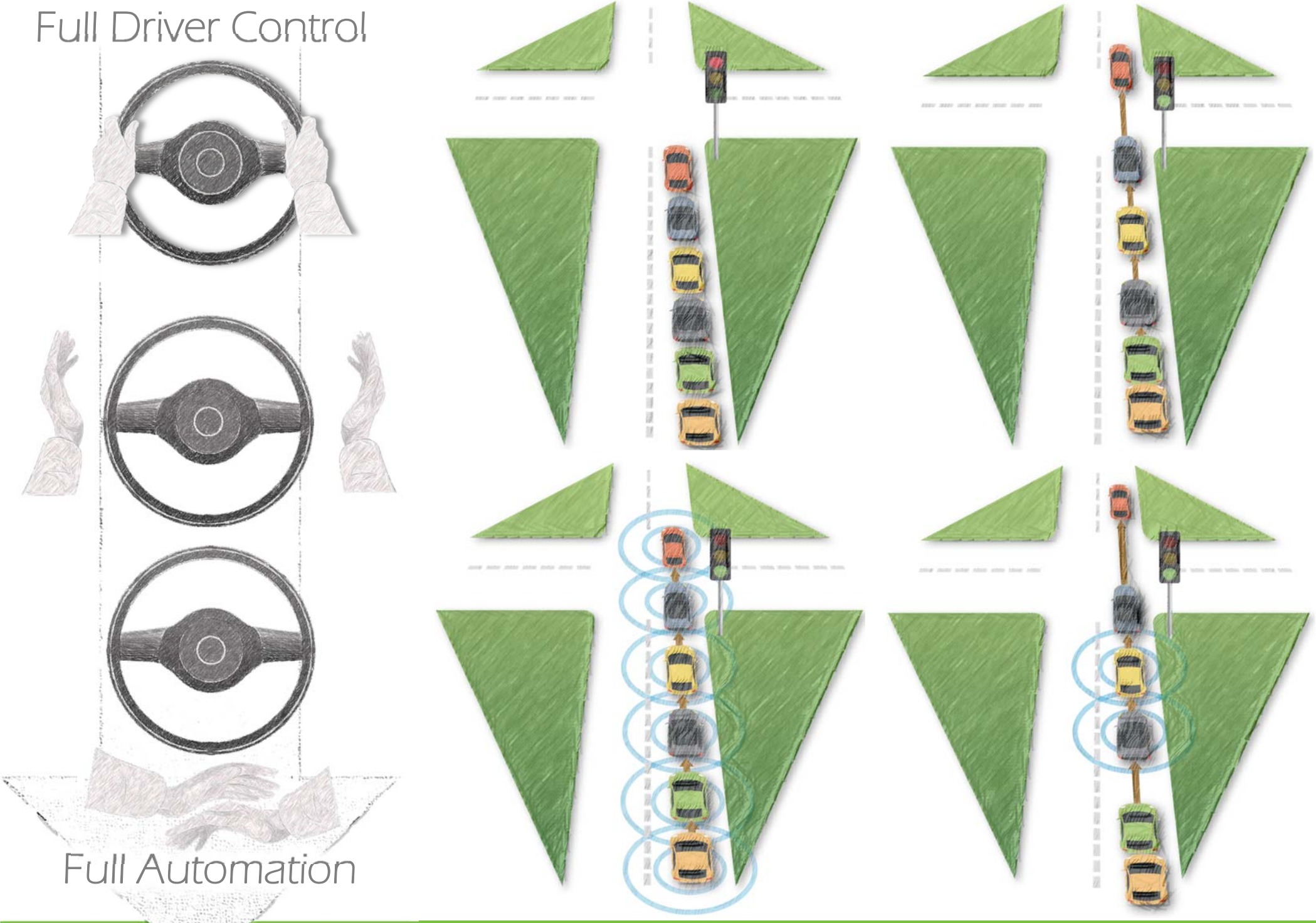
**Average of 14-15 Years to Reach 50 Percent Market Penetration**



# Adoption of New Vehicle Technology

**Fleet Turnover – Average Age All Light Vehicles**



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# Self-Driving Cars:

# Implications for Transit Update

## or “Will the Google Car Replace my Bus?”

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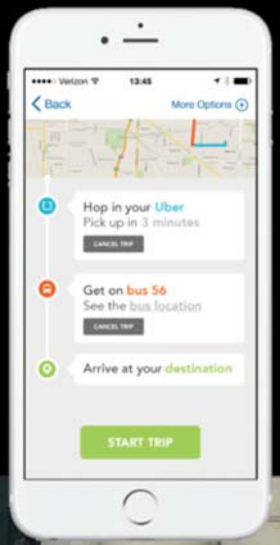
# Transit Agency – Shared Mobility Partnerships

1. Marketing coordination
2. Trip planning app integration
3. Operations integration

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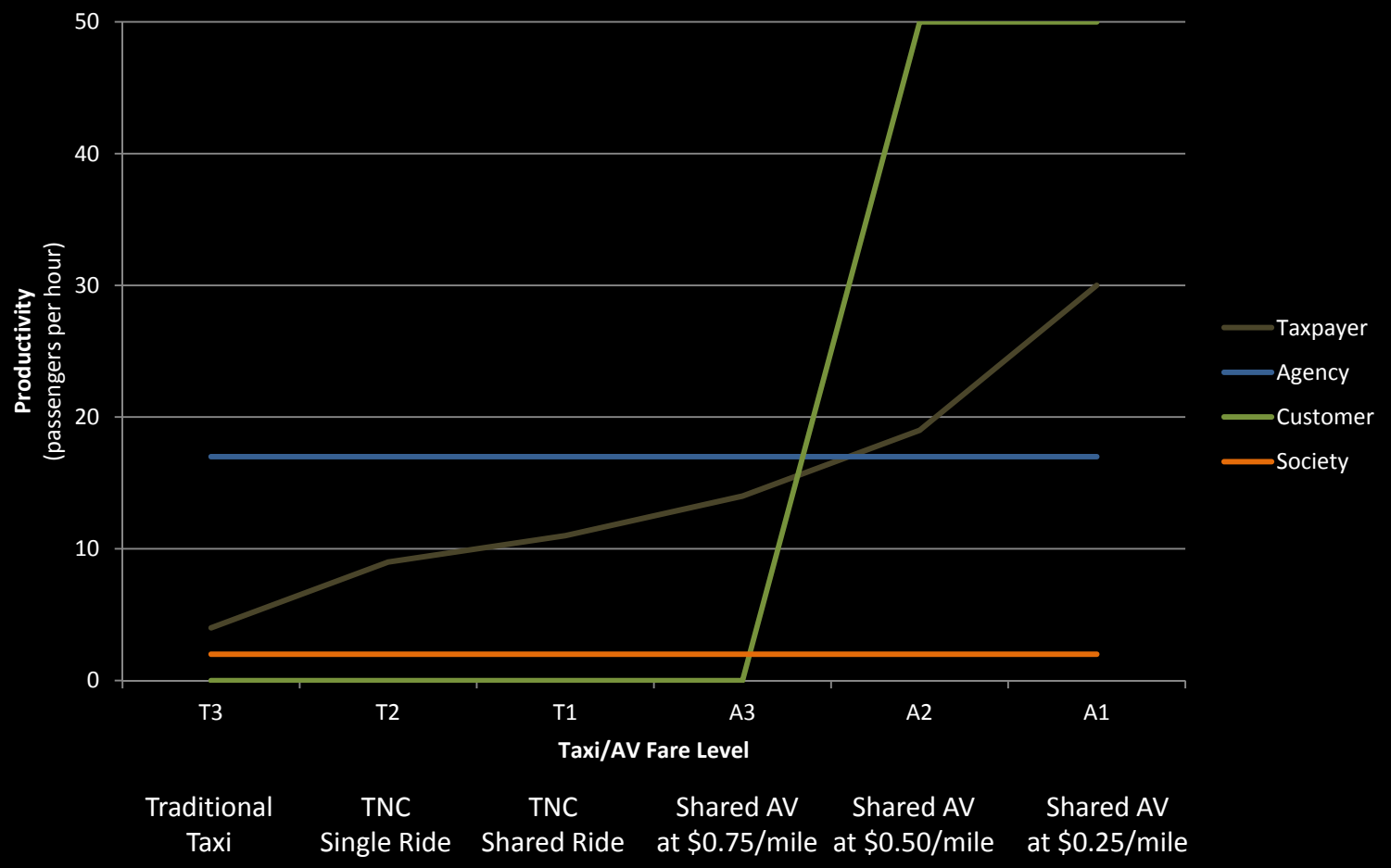
# Fixed Route Service Competitiveness




HNTB

# Autonomous Transit

Sensor technology advances allow operation in mixed traffic

Numerous trials of low-speed 8-12 passenger vehicles around the world



CAMBRIDGE SYSTEMATICS

Think Forward

# Connected and Autonomous Vehicles

*What Does Our Self-Driving Future Mean for Transportation Planning?*

***presented to***

*Transport Chicago*

***presented by***

*Cambridge Systematics, Inc.*

*Sam Van Hecke*

June 10, 2016

# Top 5 Things Planners Need to Know…

1. Self-driving vehicles will happen
2. It's connected AND autonomous
3. Commercial vehicles will be first
4. Capacity expansion may be a thing of the past
5. The shared economy will play a huge part in the mobility of the future



http://www.linkedin.com/pulse/top-5-things-planners-need-know-self-driving-vehicles-chris-hedden-1

# Impact on Planning Products and Processes

**PRODUCTS**

- TIP
- Regional ITS Architecture
- Bicycle and Ped Plan
- LRTP
- Asset Management Plan
- SHSP
- Transit Development Plan
- Public Involvement Plan
- Freight Plan
- Financial Plan

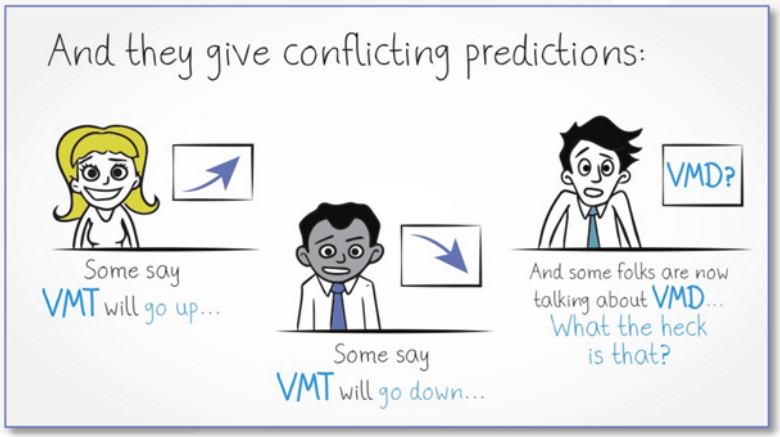
**PROCESSES**

- Long range planning
- Project selection/programming
- Project design
- Travel demand forecasting
- Safety analysis
- Data collection
- Data management
- Infrastructure maintenance
- Operations
- Workforce development

http://www.its.dot.gov/connected_vehicle/cv_planners.htm

# Dealing with the Uncertainty

- Don’t focus on how
- Don’t pick sides
- Build relationships
- Use Robust Decision Making
  - » Near-term strategies
  - » Deferred adaptive strategies
  - » Hedging strategies
  - » Shaping strategies




Top 5 Things Planners Need to Know About Self-Driving Vehicles

# MEET THE JETSONS

Track: Data and Innovation

**In the not-so-distant future, connected and autonomous vehicles will change the way we travel, with impacts for cities, transportation agencies, and YOU.**

*Let's Discuss...*

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