

# **Planning for Cars That Drive Themselves: Metropolitan Planning Organizations, Regional Transportation Plans, and Autonomous Vehicles**

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# Autonomous vehicle:

- A potential most transformative transport technology
- Likely to have impacts on travel behaviour, safety, car-ownership, infrastructure, land-use, and settlement patterns.
- Has possibility to both increase or decrease VMT (Vehicle Miles Travel)
- **The policies, regulations, plans, and technologies adopted for autonomous vehicles will have significant influence on its impact**
- **Currently, any policies related to autonomous vehicle are largely neglected by planning professions**

## **Interviews from MPOs (Metropolitan Planning Organizations):**

Series of interview with major MPOs were conduct under three hypothesis:

1. Planners are either unaware of the new technologies or do not believe their impacts will be profound
2. The impacts are not yet certain enough for credible planning efforts
3. The impacts are too far removed from

## Interview results:

- Many of MPOs acknowledge the potential impact of autonomous vehicles and following the technology closely with intimate knowledge of the current state of this technology
- The uncertainty of the impacts are very high, which translate to difficulties to introduce strategy for this technology
- Lack of knowledge for MPOs to initiate planning related to autonomous vehicles
- Autonomous public transport is a positive possibility
- Self-driving car can greatly encourage sprawl
- Foresee able impact for MPOs is the obsolescent of investment in transport infrastructure (highway, rail)
- There are other topics with equally transformative impacts (climate change, 3D printers, improvements in telecommunications, vehicle-to-infrastructure)

## Policy recommendations:

1. Planners should not expect this technology to be a quick answer for current problems
2. Rigid planning process might not be suitable to handle transformative technology.
  - There are two scenarios that are likely to happen and should be considered.
  - 1) driving rates, effective road capacity, and travel increase substantially.
  - 2) shared autonomous taxis replace private cars and public buses, particularly in more urban areas.
3. Considerations of vehicle automation should play a limited and complementary role in decision making, because of its uncertainty.