

# *Mass Transport to Automated Taxis: The Path for Better Urban Mobility*

Michel Parent  
AutoKAB, France



# *Military Robots (1980's)*



# Prometheus 1986-1994



# *AHS San Diego (1997)*



# DARPA Grand Challenge 2004



# *DARPA Grand Challenge 2004*



# *DARPA Challenge II (2005)*



# DARPA Urban Challenge 2007





# Google Car (2011)



# Google Pod (2013)



# Driverless taxis



# *Major Difficulties Ahead*

- Sensor suite (cameras, lidars, radars, fusion)
- Handling of unexpected situations
- Dynamic HD Maps and localisation
- Interaction with other vehicles and infrastructure
- Certification of systems
- Business models/ Space usage&value

Elaine Herzberg  
† March 18th 2018  
Tempe (AZ), USA



TEMPE

ONLY ON FOX NEWS  
SELF-DRIVING VEHICLE HITS BICYCLIST

abc 15  
ARIZONA

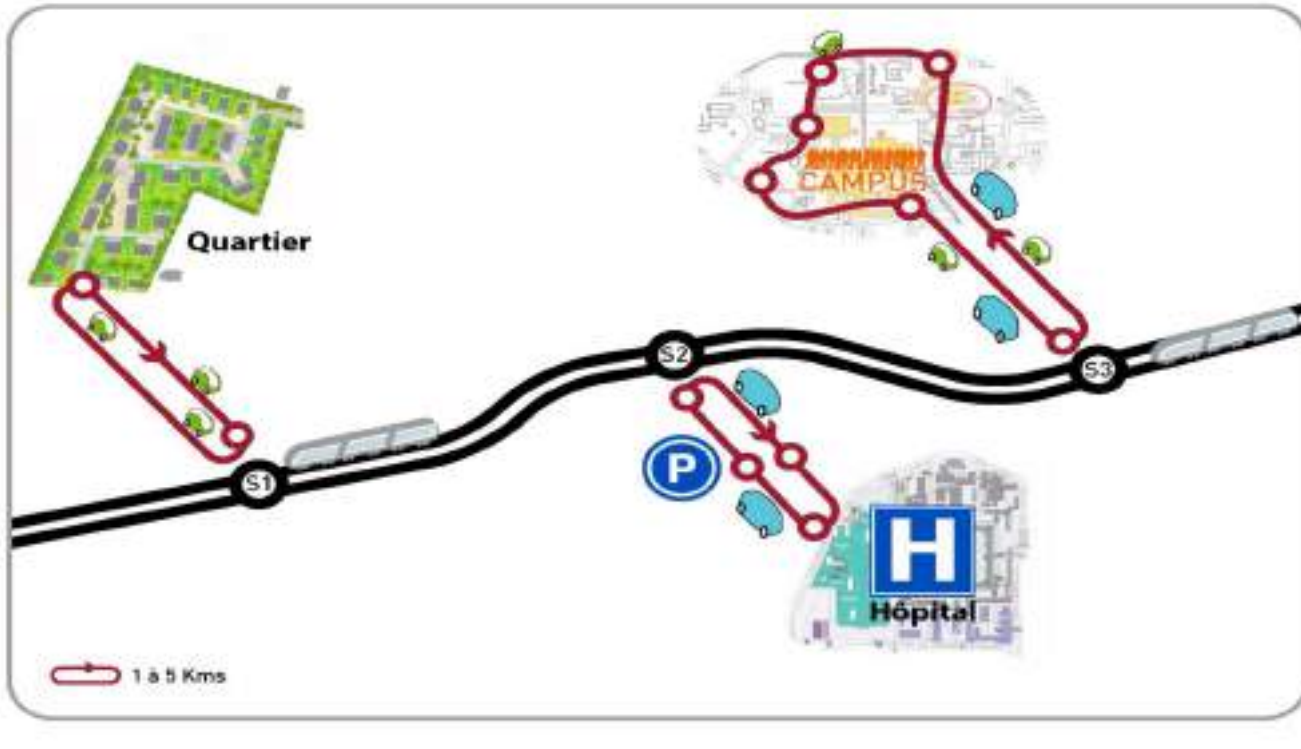
# *Urban Sprawl*



# *Urban Space Allocation*



# Multi-modality. Last Mile Link





# *Bike Sharing*



# *Electric scooters*



# Car Sharing



CAR2GO IS COMING



# Uber Multimodality Concept



# Concept INRIA/INRETS (1991)

- Small Public Urban Vehicles
- Assited driving
- Platooning
- Automated Parking
- Automated tracks
- Complement to other modes



# Praxitele (1993-1999)



# *Platooning (INRIA-1994)*



# *INRIA CyCabs (1996)*





# *ParkShuttle-1 Schiphol (1997)*



# *ParkShuttle-2 Rotterdam (2005)*



# *2GetThere – Masdar City (2010)*



# ULTra in Heathrow (2010)



# *INRIA-CityMobil in La Rochelle (2011)*



# French Driverless Shuttles



An aerial, grayscale view of a city street with a dedicated red bus lane. A line of red buses is traveling along this lane. The image is overlaid with several green concentric circles, resembling sensor waves or radar, positioned around the buses and in the surrounding street. A large white logo, consisting of a stylized 'A' with a circular sensor symbol inside, is centered over the text.

# AutoKAB

**A unique autonomous transport service to  
make transit in suburbs easy to use**

# *Automation Kits and Services*

- Driving assistance kits (ADAS)
- Remote control kits
- Platooning kits
- Driverless kits
- Safe-speed service





# Team



**Michel Parent, President**  
40 years Robotics - vehicle automation  
(ex. INRIA, Stanford and Berkeley)



**Carlos Holguin, CEO**  
Serial entrepreneur - 15 years  
experience deploying automated  
vehicles in cities



**Cristian Sandu, CTO**  
Serial entrepreneur - Electronics and  
Software Engineer



**Fawzi Nashashibi**  
Road automation leader at INRIA >25  
years experience automating road  
vehicles



**Adriano Alessandrini**  
Transport planning & Economics Professor >20  
years design and operation of transport systems

***Merci***

*Michel.Parent@autokab.com*

*www.autokab.com*