



Future Roadways with Co-operative Autonomous Vehicle Networks (CAVN)

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Driverless cars in the headlines (2016)

Secretary Foxx Unveils President Obama's FY17 Budget Proposal of Nearly \$4 Billion for Automated Vehicles and Announces DOT Initiatives to Accelerate Vehicle Safety Innovations

Ford's Driverless Cars Ready To Hit California Streets In 2016

Cars with no drivers becoming a reality

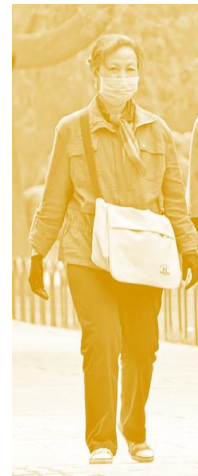
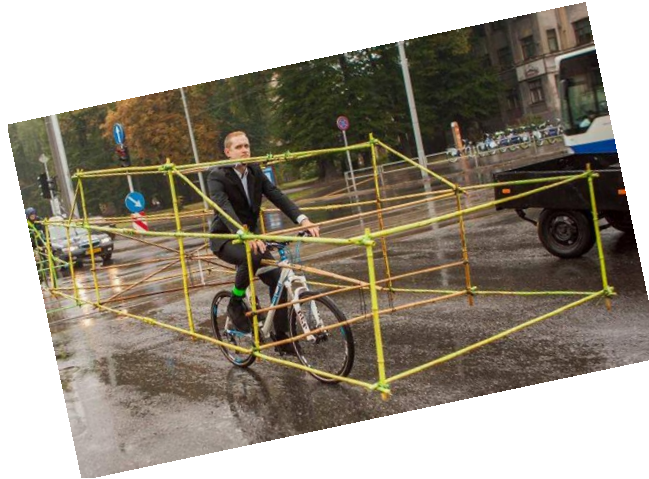
The Big Read: The robot cars are coming

Autonomous truck cleared to drive on US roads for the first time

Co-operative Autonomous Vehicle Networks (CAVN)

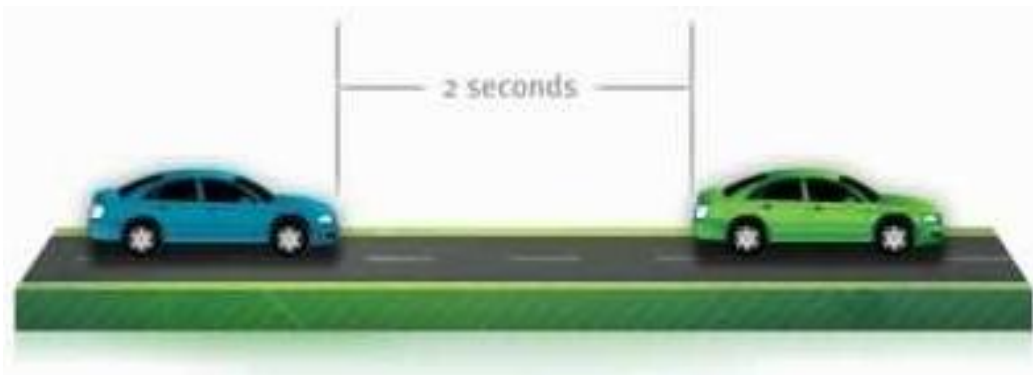
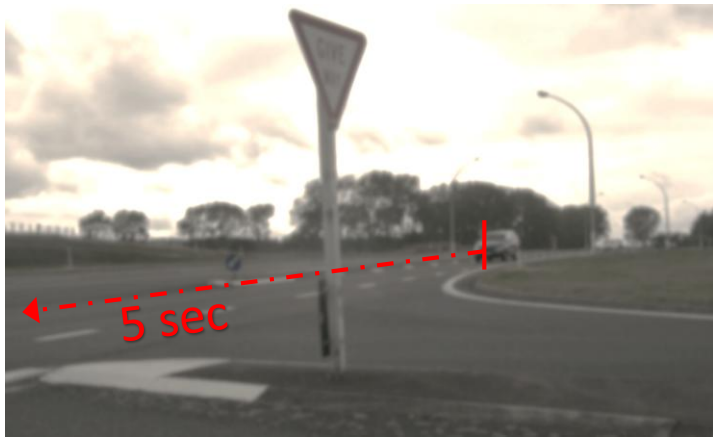
- 1. Roadways today, in hindsight**
- 2. CAVN and what it could do**
- 3. So what does this mean for us now**

Roadways today, in hindsight



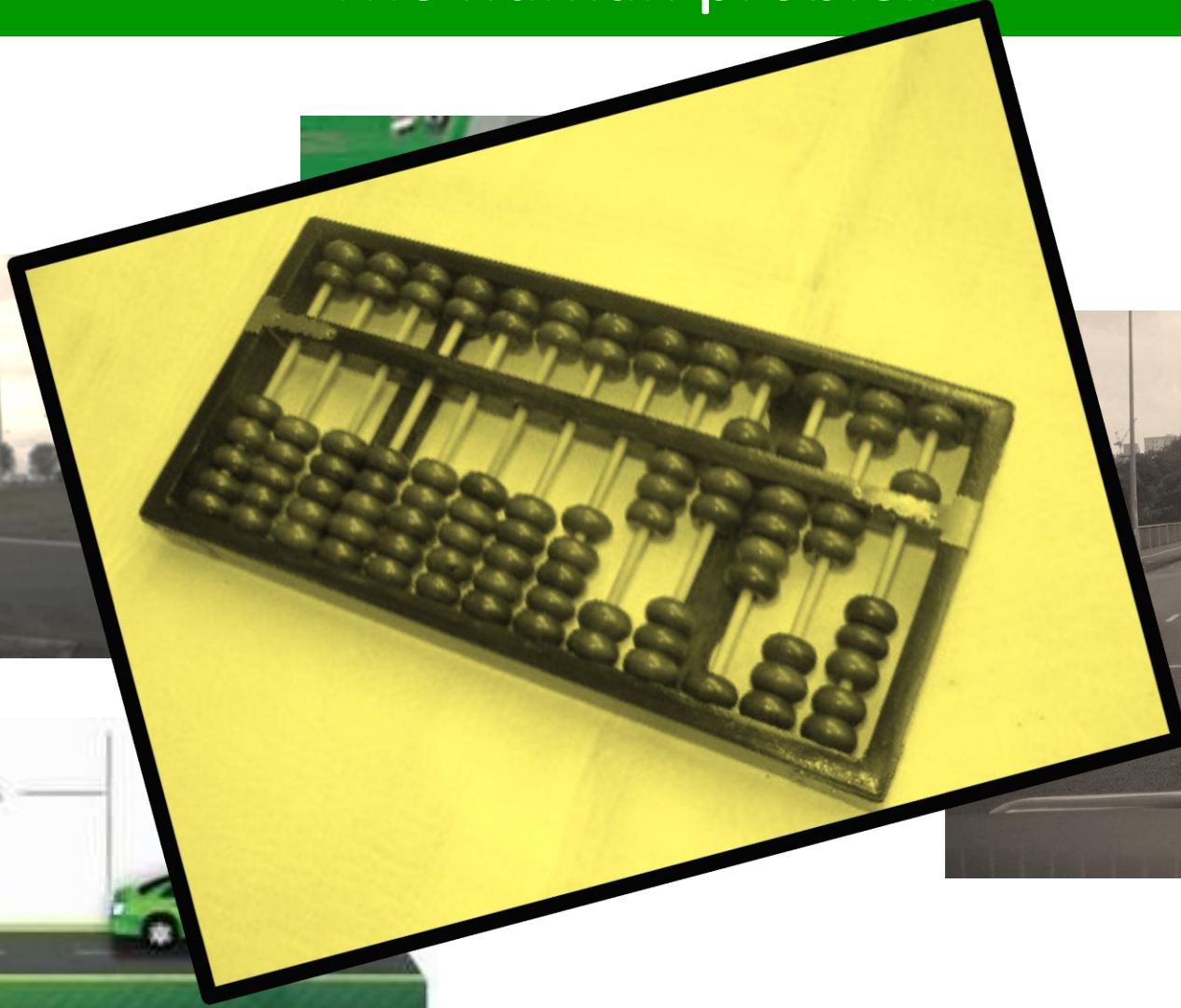
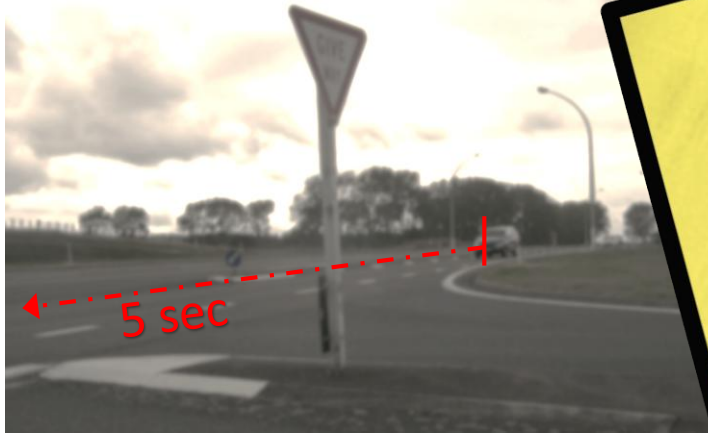
Roadways today:

The human problem



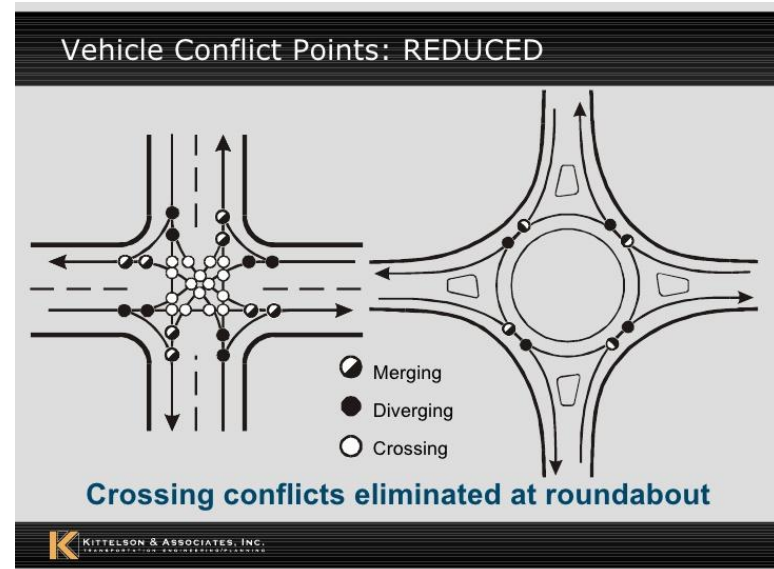
Roadways today:

The human problem



Roadways today:

Hazardous

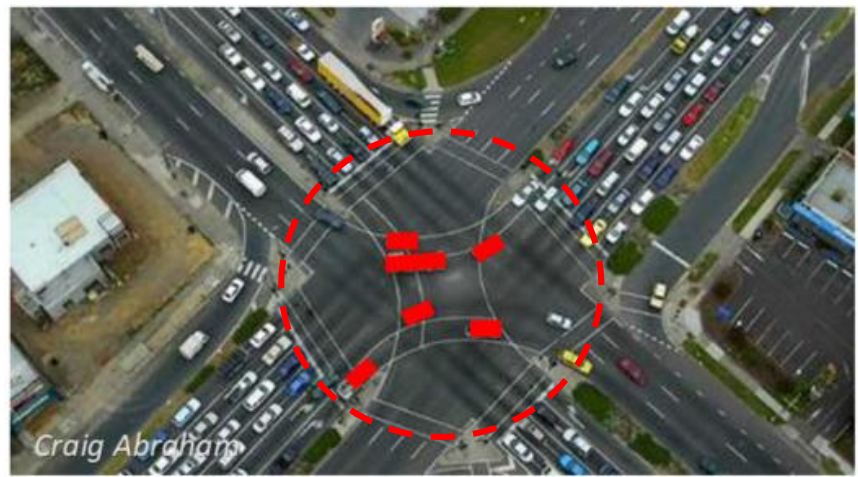
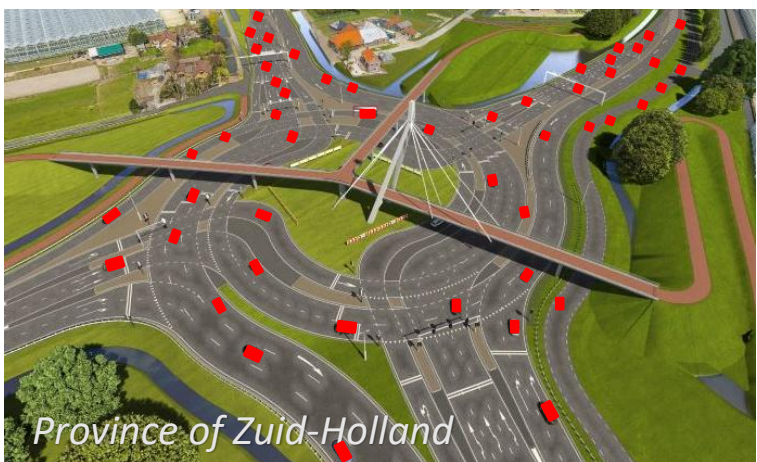


Roadways today:

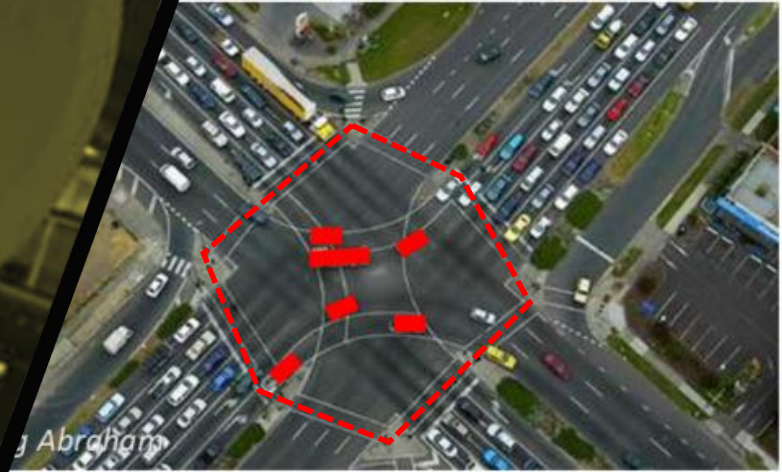
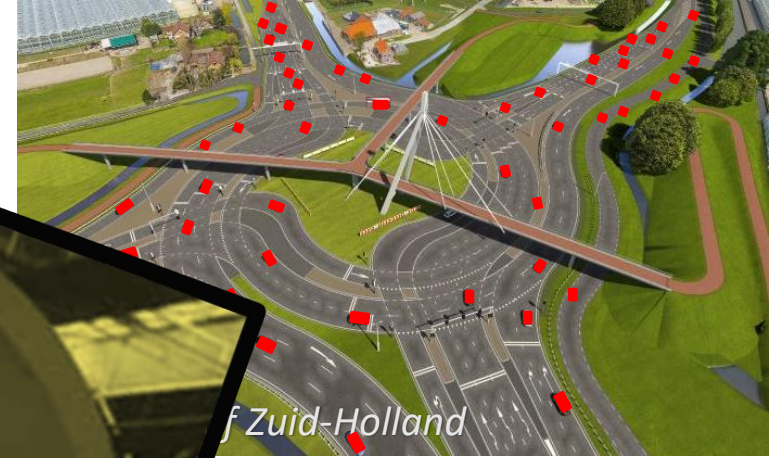
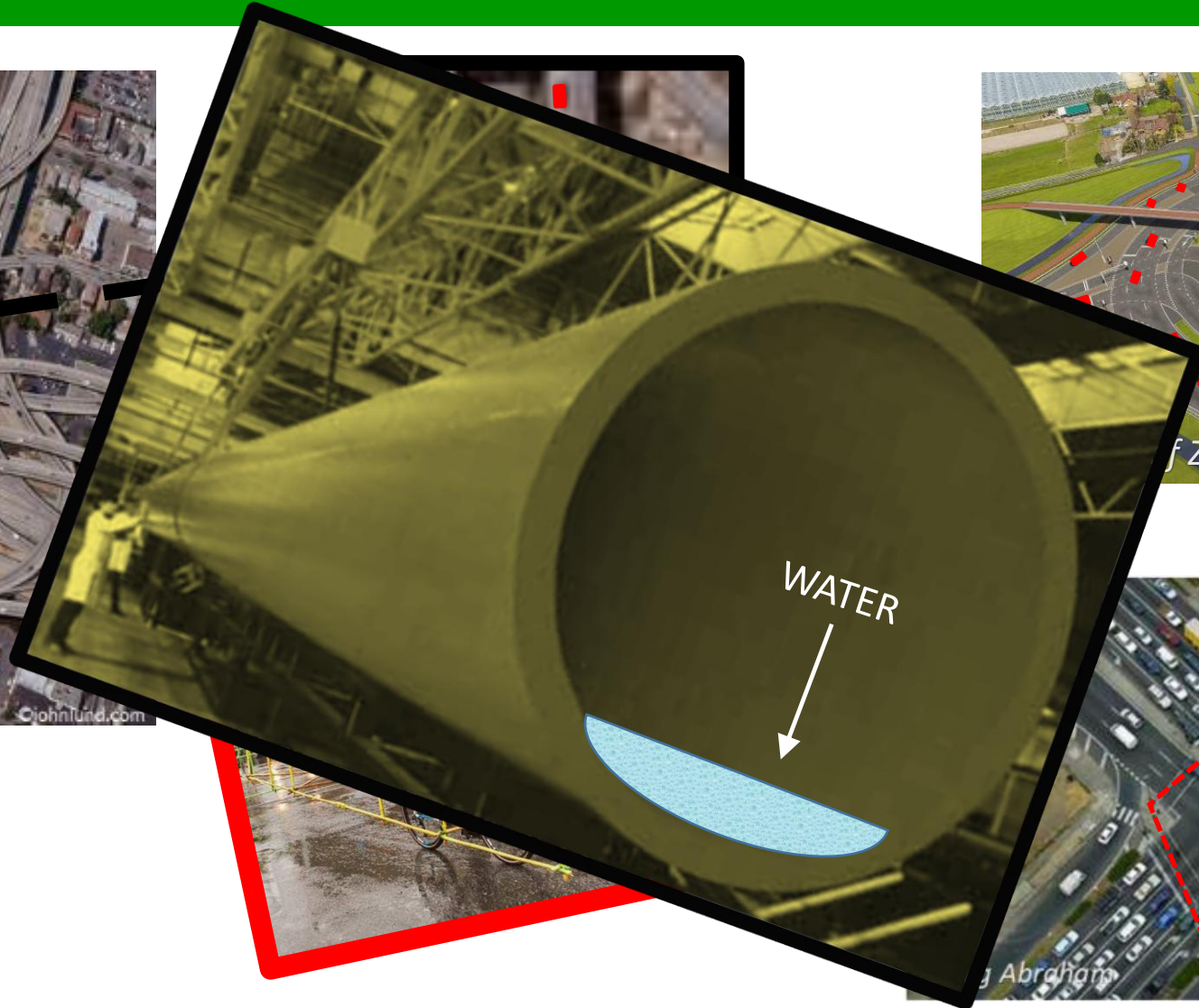
Hazardous



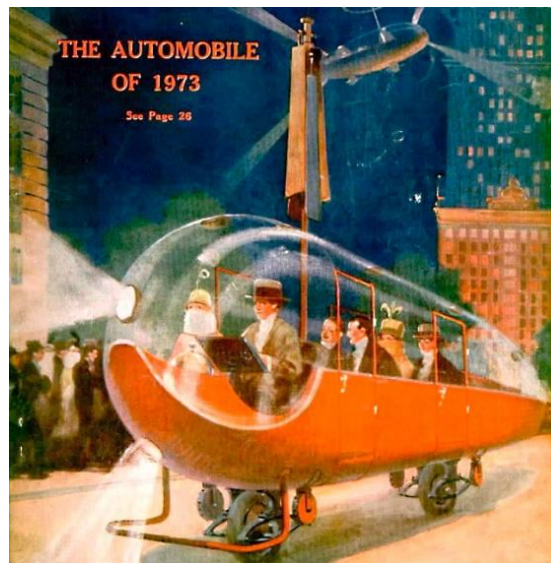
Roadways today: Inefficient use of SPACE needs BIG Infrastructure



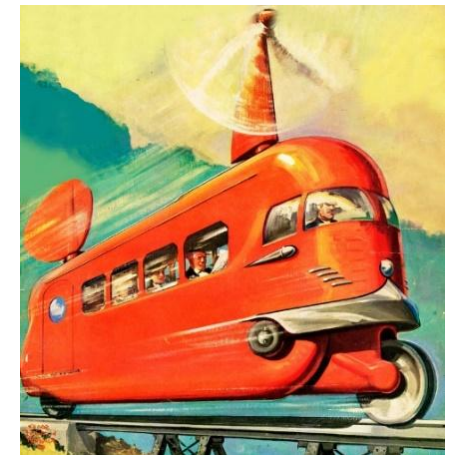
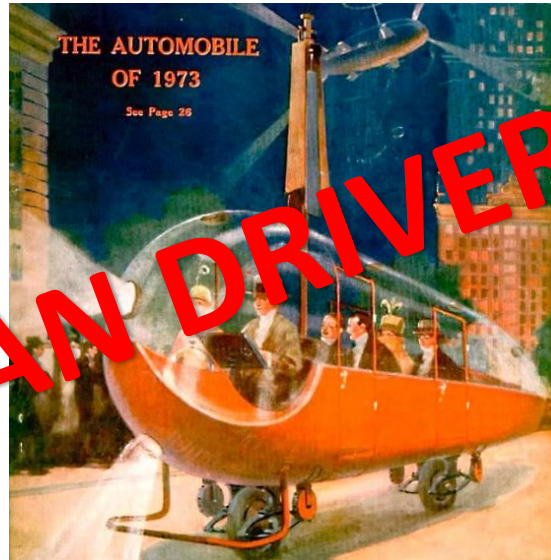
Roadways today: Inefficient use of SPACE needs BIG Infrastructure



CAVN and what it could do



CAVN and what it could do



NO HUMAN DRIVERS ALLOWED

CAVN:

Analogies in nature



CAVN:

Personal Transportation



CAVN:

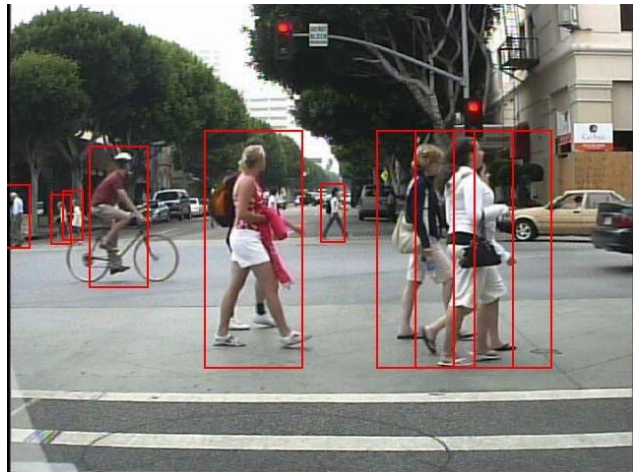
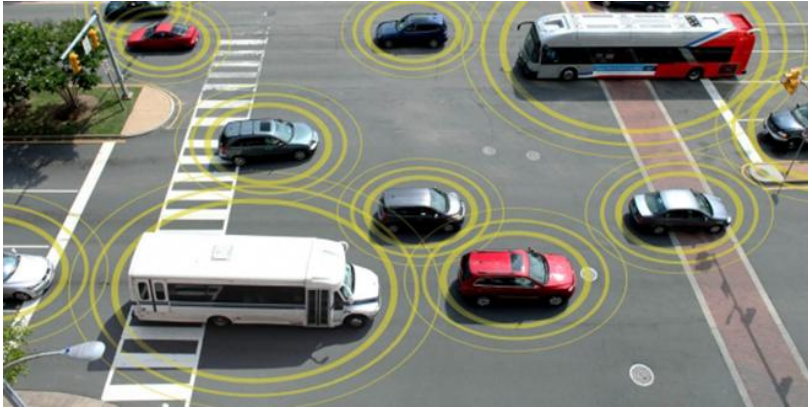
Personal Transportation



NO HUMAN DRIVERS ALLOWED

CAVN:

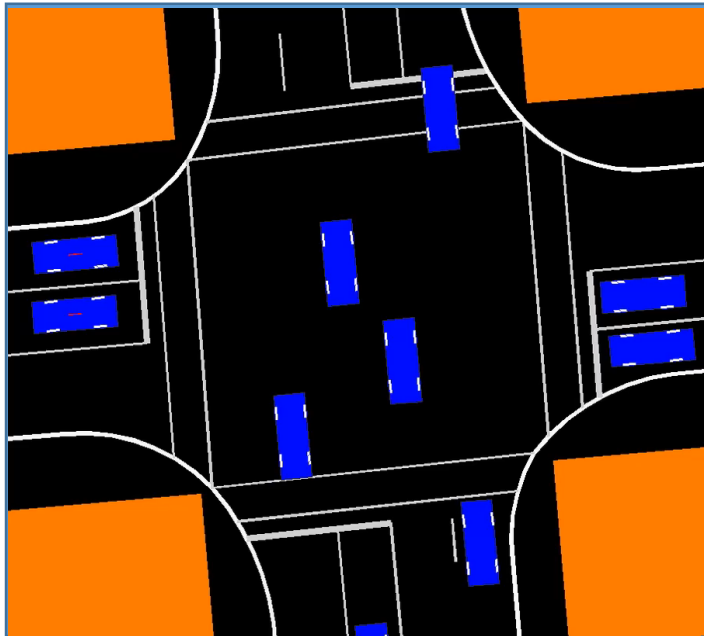
Safety negotiable



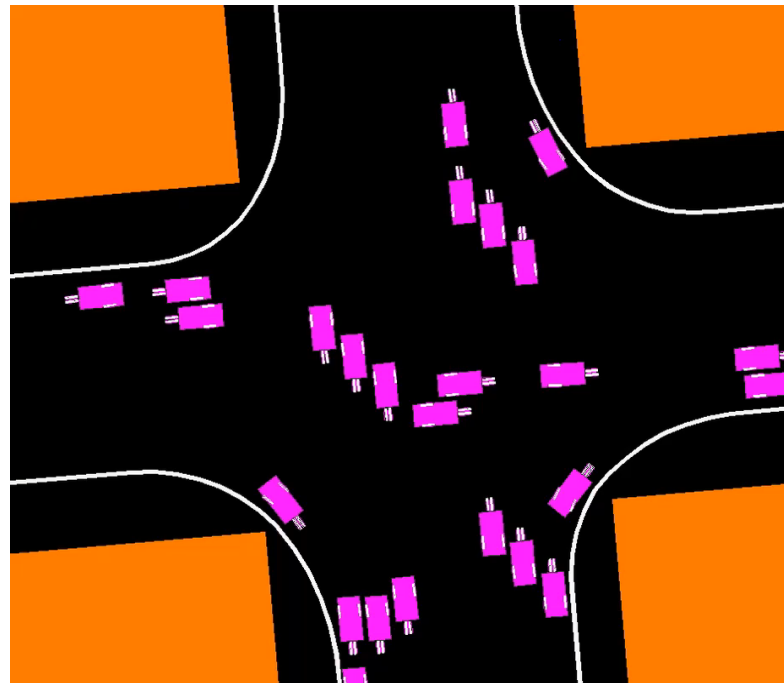
1 M dead / yr

CAVN:

High capacity intersections



X 1 @40 km/hr



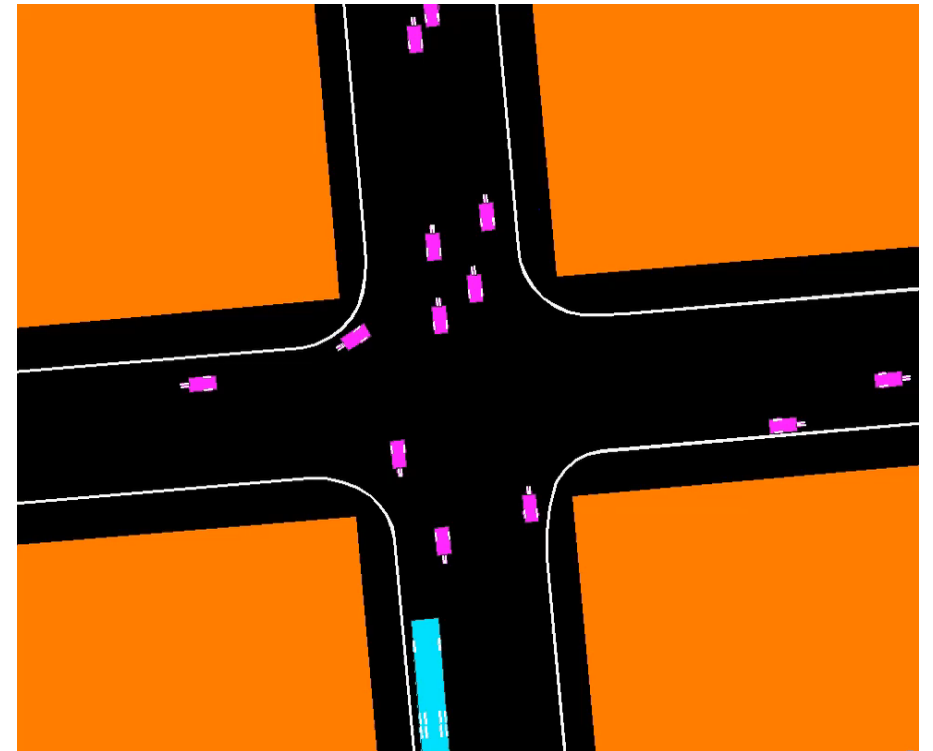
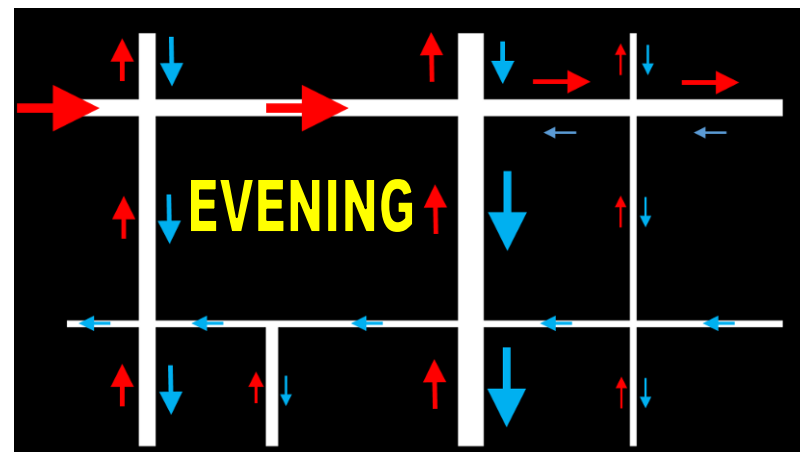
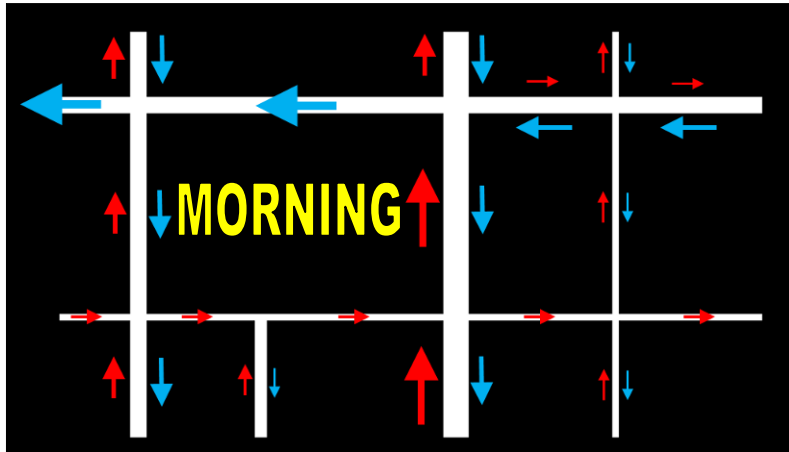
X 3 @20 km/hr



X 5 @20 km/hr

CAVN:

Dynamic traffic flow management



CAVN:

Questions and uncertainties



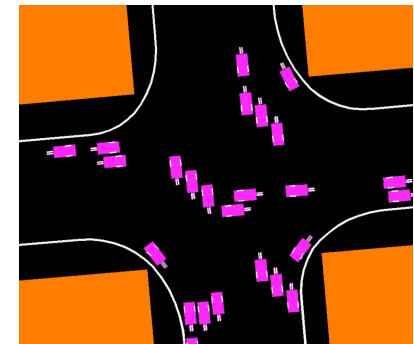
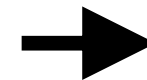
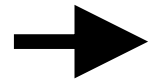
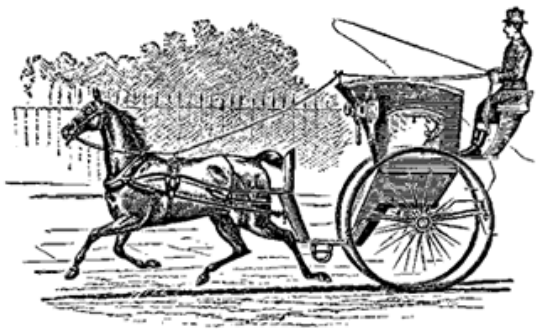
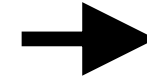
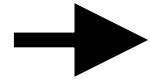
CAVN:

Undoubted benefits



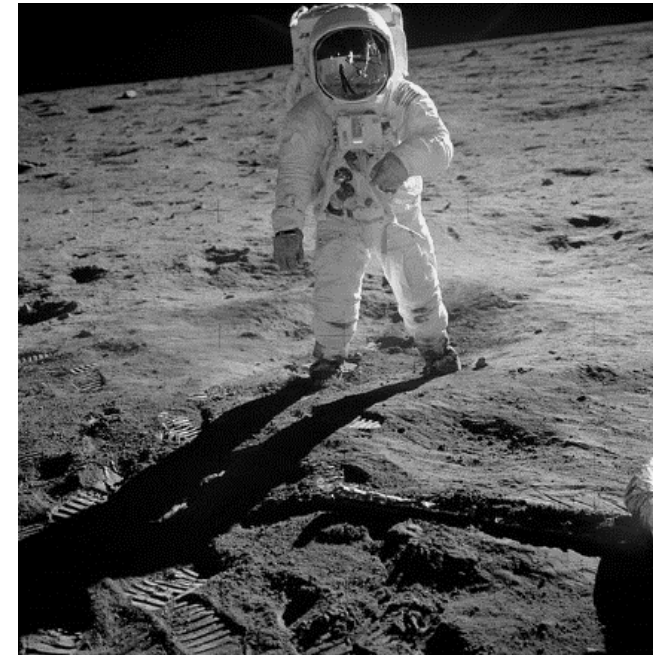
CAVN:

Historical Parallels



CAVN:

Cold War Competition



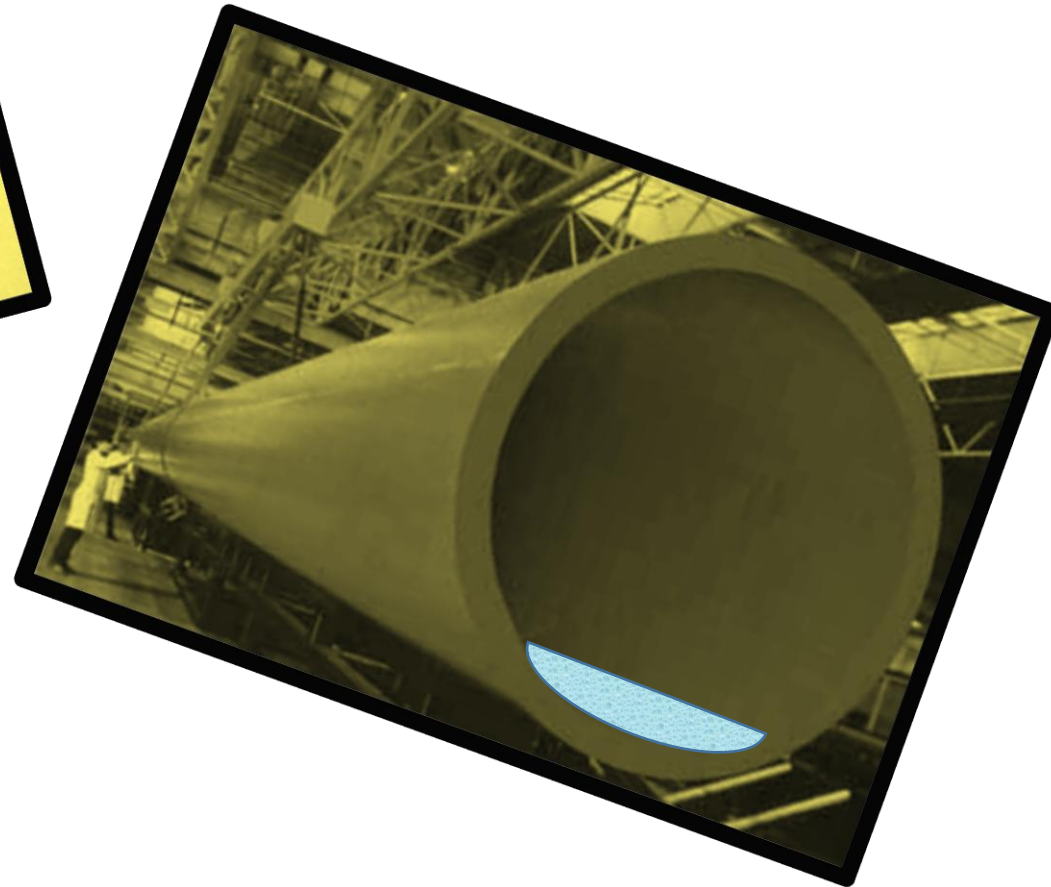
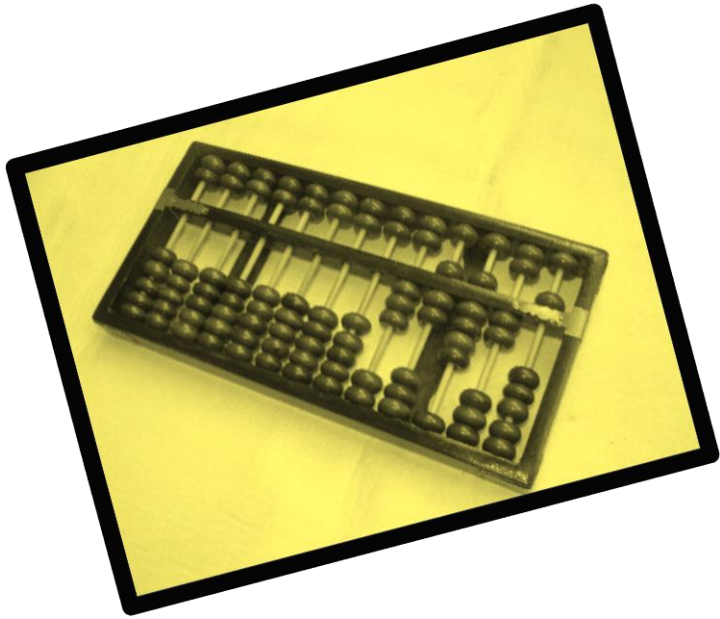
\$300 Billion (today's dollars)
or around 3% of US Federal funding from 1960 to 1973

So what does this mean for us now ?



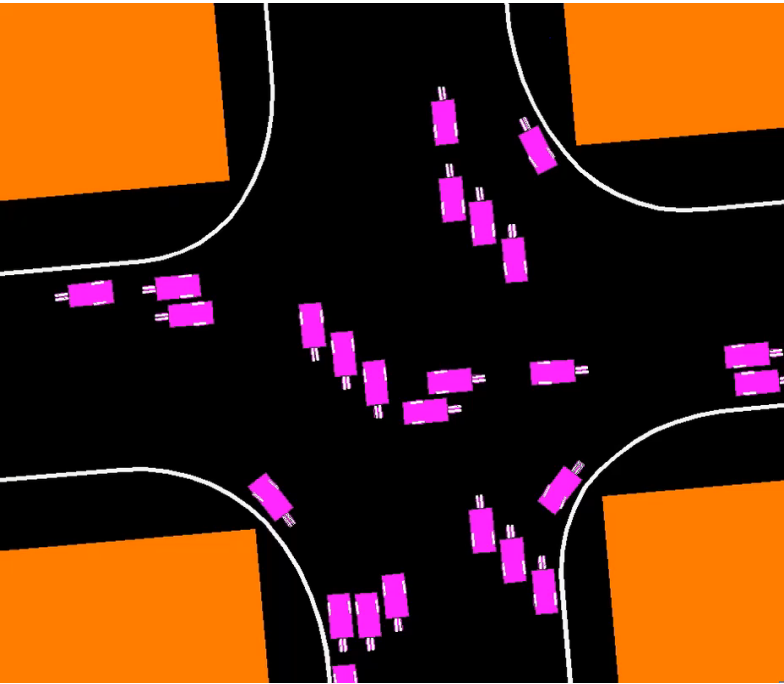
To conclude:

Roadways of today



To conclude:

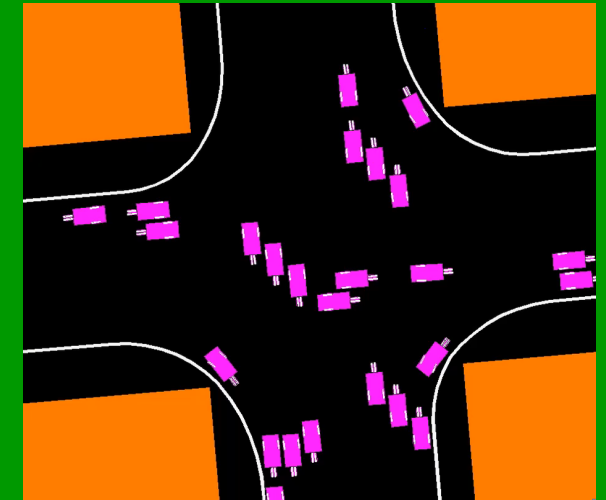
CAVN offers more



To conclude: Today's infrastructure tomorrow



Autonomous Car Networks: Just do it



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