

Vehicle Automation Promises and Perils

Dave Miller

Center for Design Research at Stanford

Stanford University Department of Communication

Vehicular Automation

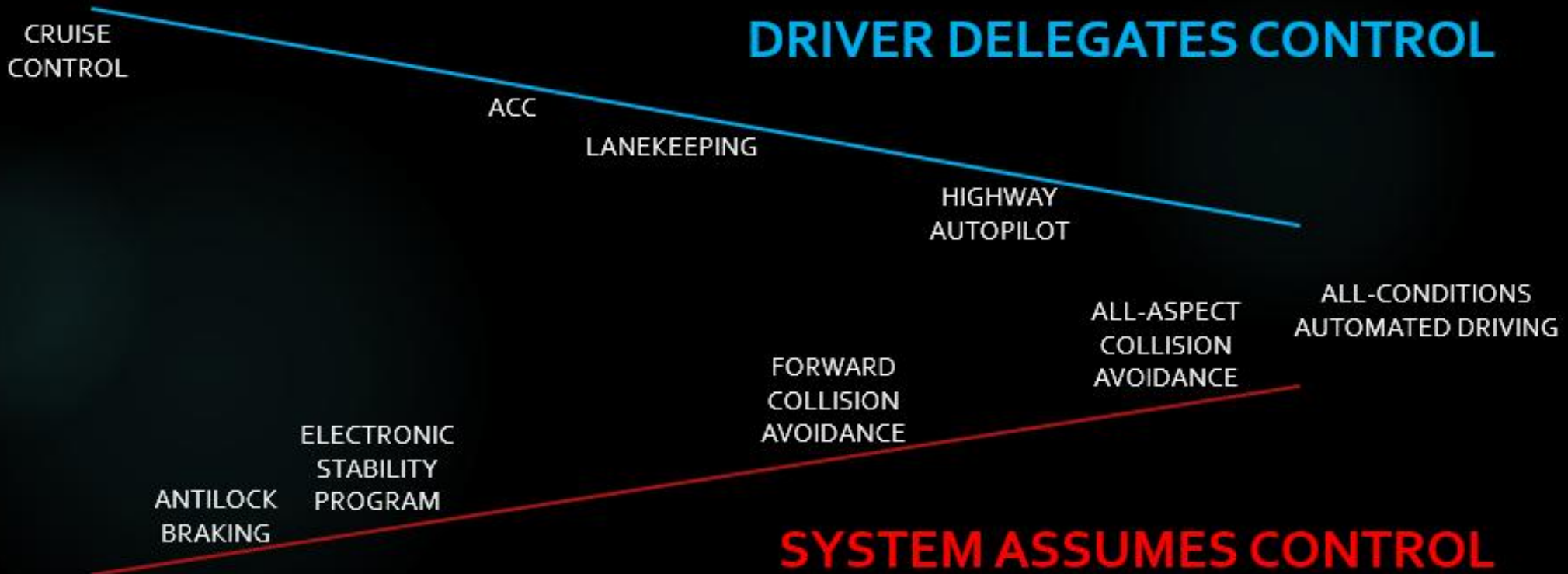
Promises

- Improved safety
- Relaxation
- Reduced traffic
- Improved sustainability

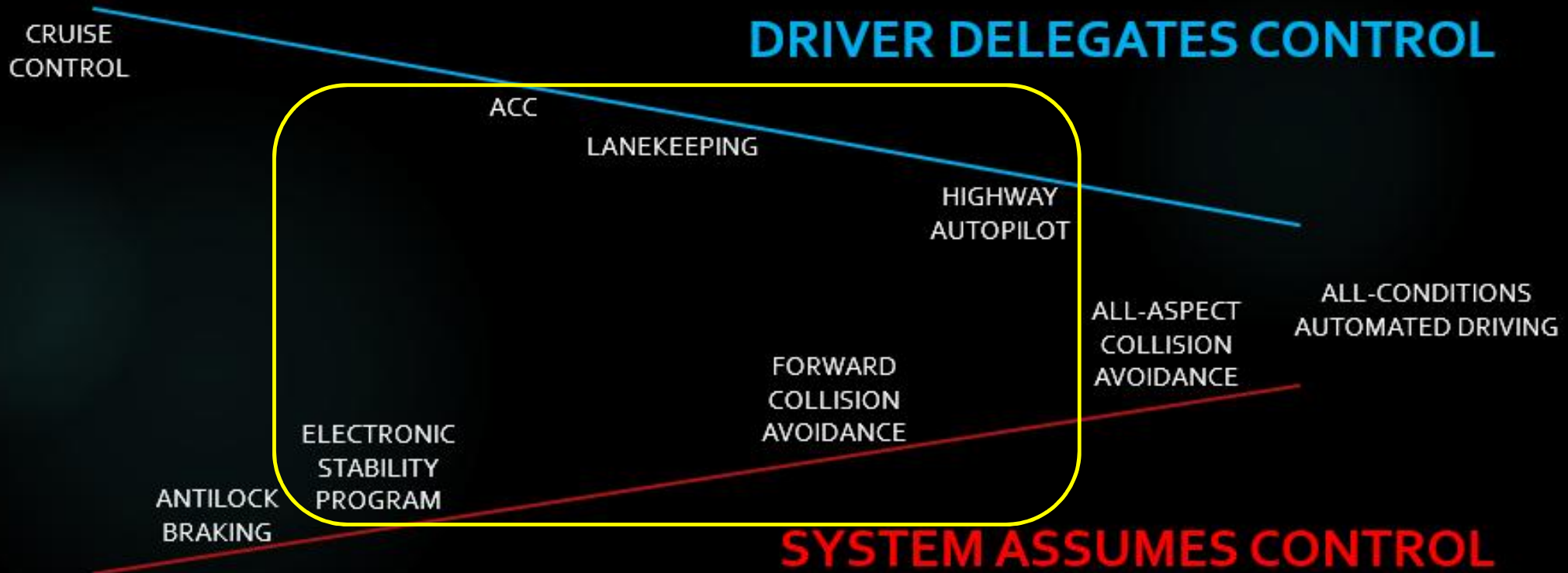
Realities

- (hopefully fewer) different crashes
- Motion sickness
- Boredom
- More traffic
- Greater energy use
- Crowding out transit, walking and cycling

The Automation Sandwich



The Automation Sandwich



Promises

- Fewer, different crashes
- Reduced energy intensity
- Traffic management
- Convenience of not driving



http://core0.staticworld.net/images/article/2015/09/0523-self-driving-cars-clean.mp4.00_03_45_09.still001-100615928-large.jpg

Perils

- Sprawl
- Use of vehicles instead of walking and biking
- Disinvestment in transit
- Disinvestment in urbanization

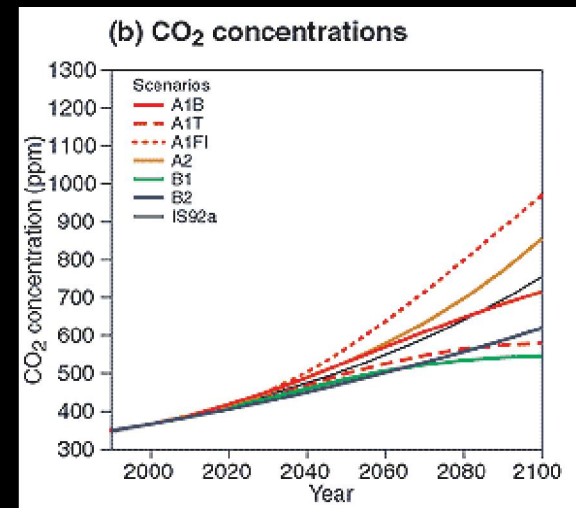


http://www.vanderbiltcupraces.com/images/blog/QD2A1844_edited-1ssss.jpg

The future I want to live in



https://i.vimeocdn.com/video/461231690_1280x720.jpg



<http://ghgonline.org/images/ipcc5b.gif>

Policy Issues

- Maintaining the trend towards urbanization
- Preventing a return to decentralization
- Promoting transit and pedestrian/bicycle infrastructure over individual cars



http://www.roadbikereview.com/reviews/wp-content/uploads/2014/10/Copenhagen_Cycling_Infrastructure.jpg