

Future of Mobility

Jeff Stout



Speed of Change... The Mary Barra story



Only 1 Car

New York City Easter Parade 1900



Only 1 Horse

New York City Easter Parade 1913

Define your terms...

Four major trends changing the automotive industry

CONNECTED

AUTONOMOUS

SHARED &
SERVICES

ELECTRIC

C

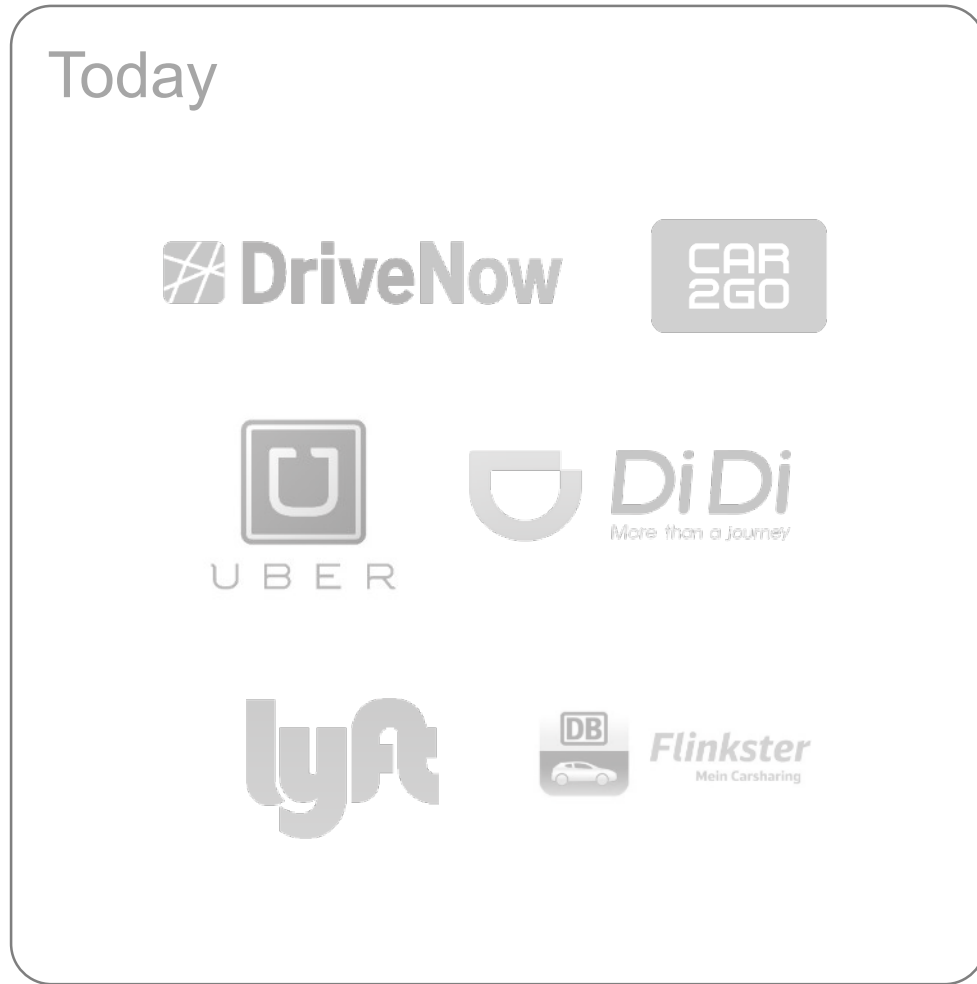
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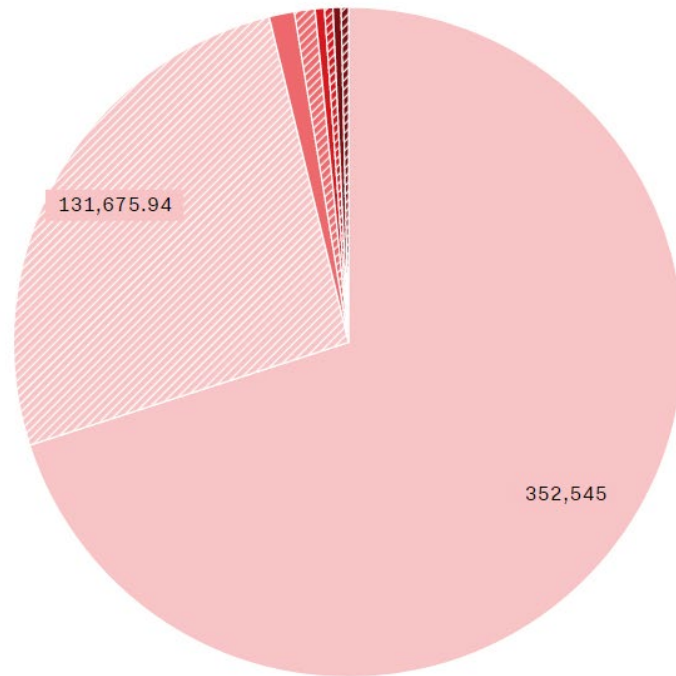
Mobility services are coming in the form of CASE ... but from what providers?



And who is going to design and build the 'car'?

Waymo is winning . . . With GM right behind

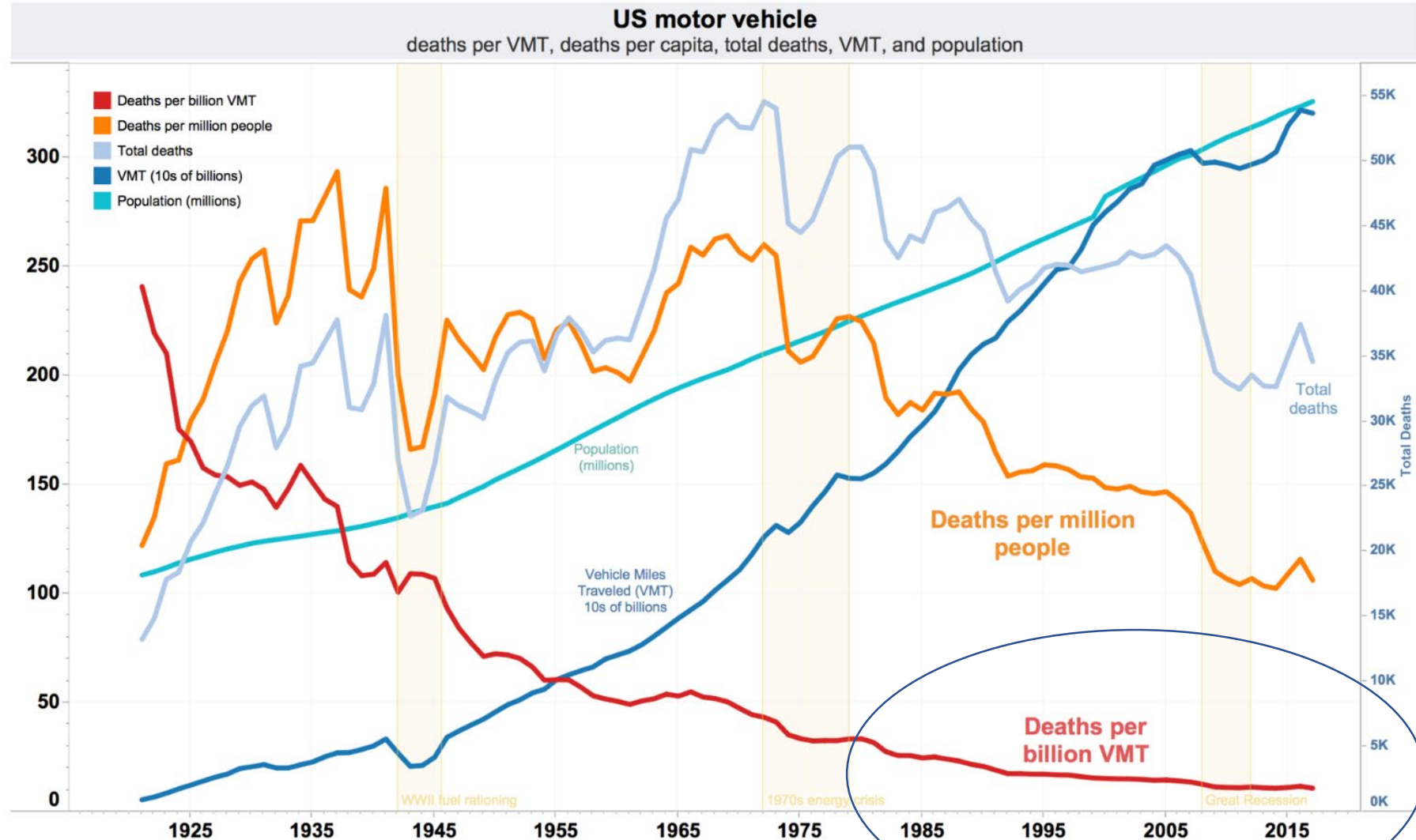
AUTONOMOUS MILES DRIVEN IN CALIFORNIA FROM 12/16-11/17



Waymo GM/Cruise Drive.ai Nissan Zoox Bosch Baidu Aptiv

- **Waymo has agreed to purchase 60,000 Chrysler Pacificas and 20,000 Jaguar I-paces.**
- **GM building fully autonomous Chevy Bolts. Buying stake in Rivian.**

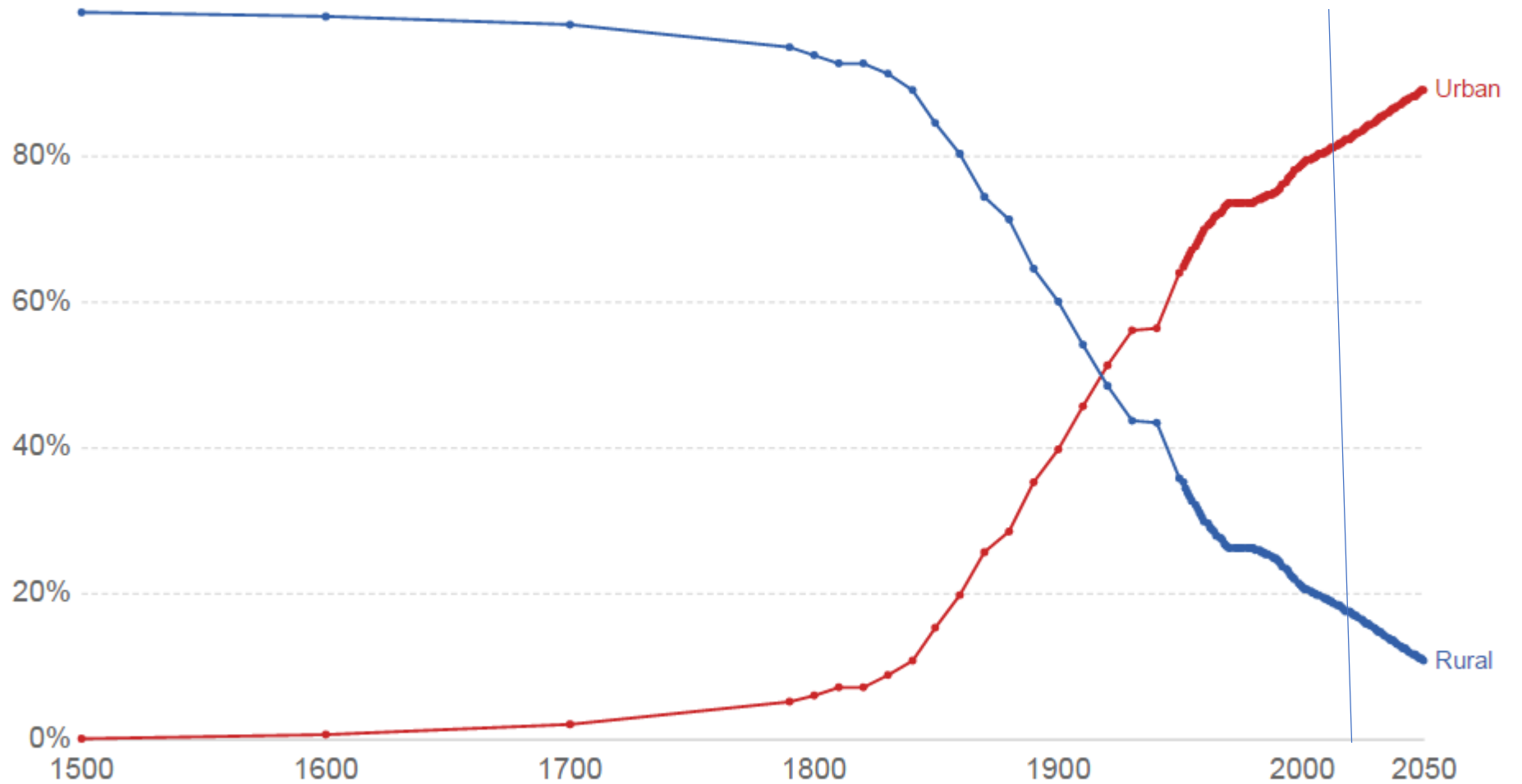
Safety:
 The things we
 accept as
 normal that are
 not normal.



Country	Road fatalities per 100,000 inhabitants per year ^[4]	Road fatalities per 100,000 motor vehicles ^[4]	Road fatalities per 1 billion vehicle-km ^[5]	Total fatalities latest year (adjusted/estimated figures by WHO report) ^[4]	Year, data source (standard source: The WHO report 2015, ^[2] data from 2013)
World	17.4			1,250,000	
Africa	26.6	574 ^[6]		246,719 ^[6]	
Eastern Mediterranean	19.9	139 ^[6]		122,730 ^[6]	
Western Pacific	17.3	69 ^[6]		328,591 ^[6]	
South-east Asia	17.0	101 ^[6]		316,080 ^[6]	
Americas	15.9	33 ^[6]		153,789 ^[6]	
Europe	9.3	19 ^[6]		84,589 ^[6]	

Do more people live in urban or rural areas?, United States

Share of the population which live in urban versus rural areas. Here, 'majority urban' indicates more than 50 percent of the population live in urban centres; 'majority rural' indicates less than 50 percent. Urban populations are defined based on the definition of urban areas by national statistical offices. This is based on estimates to 2016, combined with UN projections to 2050.



Source: OWID based on UN World Urbanization Prospects (2018) & Historical Sources (see Sources tab)

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⇌ Change country

CHART

MAP

DATA

SOURCES

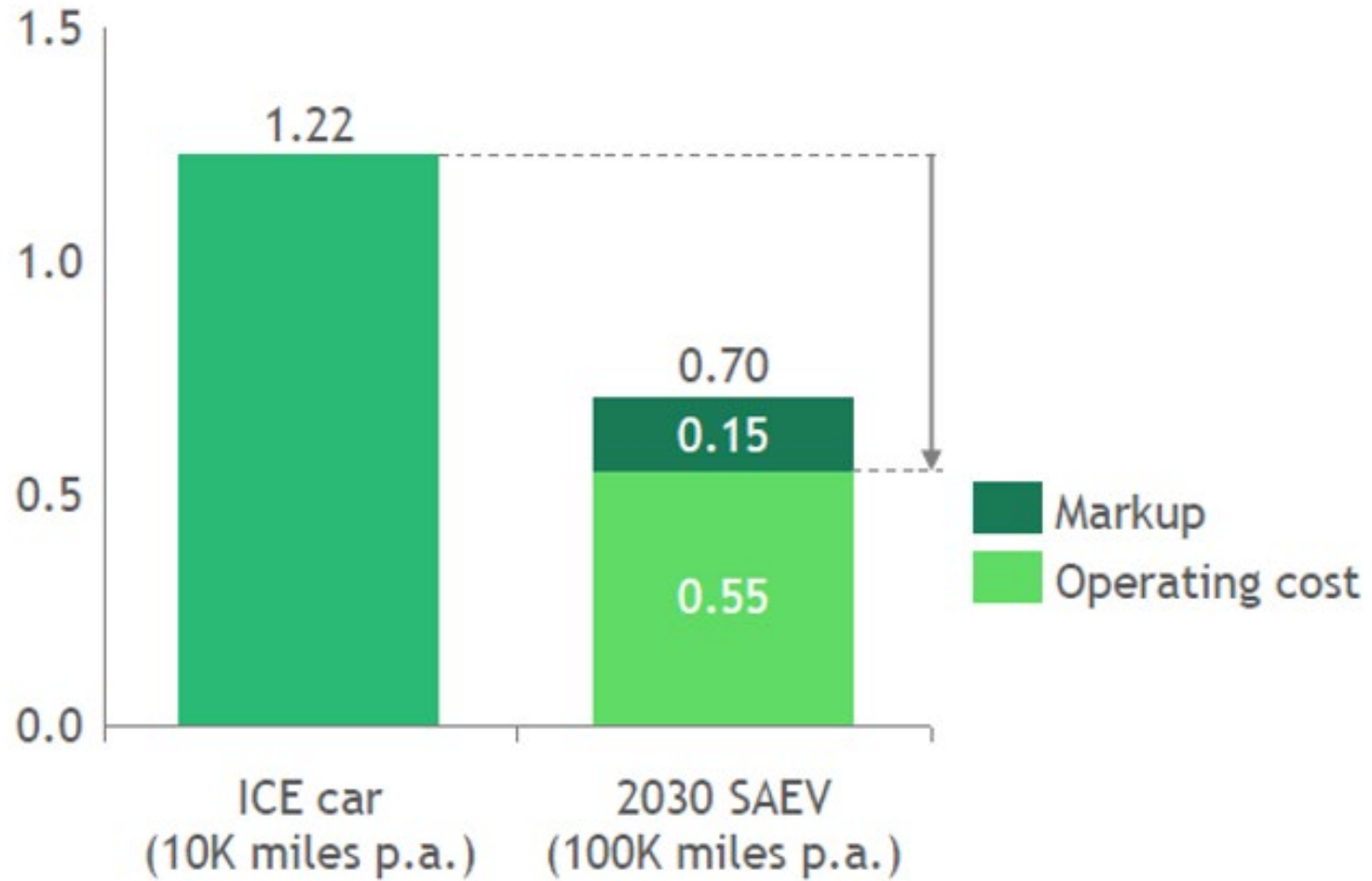


**Urbanization:
We keep
moving to the
city.**

**Cities are
starting to
respond by
'banning cars'**

Consumer cost per mile (ex: United States)

\$/mi in large city



THE ZERO DOLLAR CAR

How the Revolution
in Big Data will
Change Your Life

JOHN ELLIS

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“Competitors who are challenging the global car industry in the 21st century technologically are not part of the automotive industry today,” Li said in a statement. “To succeed and seize the technology high ground, one has to have friends, partners, and alliances.”

Li Shufu, Chairman of Geely, after making \$9b investment in Daimler AG



Only 1 Car
New York City Easter Parade 1900

← 13 years →

Only 1 Horse
New York City Easter Parade 1913



“We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don't let yourself be lulled into inaction.

Bill Gates