Intel — On The Road To Autonomous Driving

Enabling safer, more productive and enjoyable travel

93% of all auto accidents are caused by human error.[1]

Auto accidents cost an estimated **$871 billion** per year.[2]

Potential to recapture **5.5 billion** hours of productivity lost in traffic.[3]

The number of people 80+ years old will be **~3x greater** in just a few decades. Automated driving can extend their independence.[4]

All statistics based on U.S. data.

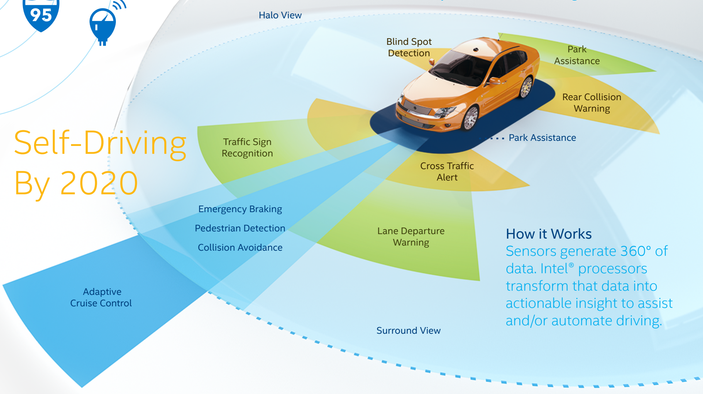
Internet of Things

Intelligent, connected devices are enhancing our world in exciting new ways.

Intelligent Connected Cars

Cars are rapidly becoming some of the world's most intelligent devices, using sensors and powerful processors to sense and respond continuously to their surrounding environment.

Self-Driving By 2020



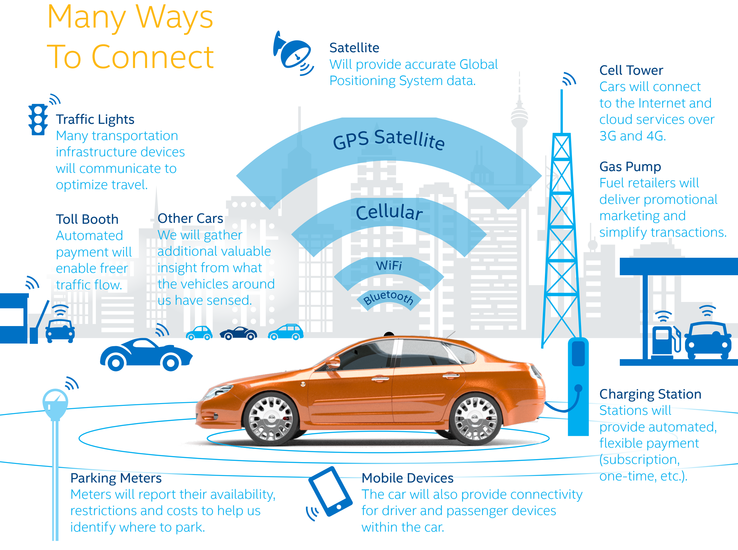
How it Works

Sensors generate 360° of data. Intel® processors transform that data into actionable insight to assist and/or automate driving.

Long Range Radar	Lidar	Cameras	Short/Medium Range Radar	Ultrasonics
~5 @50 mbps each	~1 @100 mbps each	~5 @100 mbps each	~4 @45 mbps each	~15 @30 mbps each

Total sensor data >=1Gbps

Many Ways To Connect



Satellite

Will provide accurate Global Positioning System data.

Traffic Lights

Many transportation infrastructure devices will communicate to optimize travel.

Toll Booth

Automated payment will enable freer traffic flow.

Other Cars

We will gather additional valuable insight from what the vehicles around us have sensed.

Cell Tower

Cars will connect to the Internet and cloud services over 3G and 4G.

Gas Pump

Fuel retailers will deliver promotional marketing and simplify transactions.

Charging Station

Stations will provide automated, flexible payment (subscription, one-time, etc.).

Parking Meters

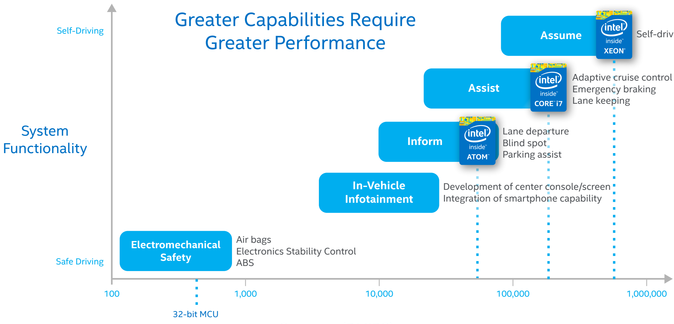
Meters will report their availability, restrictions and costs to help us identify where to park.

Mobile Devices

The car will also provide connectivity for driver and passenger devices within the car.

Automated Driving = Big Data + Big Intelligence

And that requires *big* performance



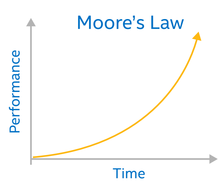
Compute (DMIPS)

DMIPS = Dhrystone Millions of Instructions Per Second
(A standard measure of integer processing performance)

Why Intel?

Scalable Performance

- Proven leader in real-time, Big Data analytics
- ADAS accelerators and optimizations
- Ever-increasing performance (Moore's Law)
- From basic to premium performance



Enhanced Security

- Advanced security is a must-have capability for intelligent, connected cars.
- Built-in hardware-based security helps protect data and platforms.

Industry Partnerships and Leadership

- Intel® architecture has the world's broadest support among hardware and software suppliers.
- Intel's leadership role in computing will help accelerate standards and innovation.

For more info, visit us on the web. www.intel.com/automotive

1 National Highway Traffic Safety Administration (NHTSA), National Motor Vehicle Crash Causation Survey. U.S. Department of Transportation, Report DOT HS 811 059, 2008
2 National Highway Traffic Safety Administration (NHTSA) study, "The Economic and Societal Impact of Motor Vehicle Crashes", 2010
3 Texas A&M Transportation Institute, "2012 Urban Mobility Report", p. 5, December 2012
4 United States Census Bureau, "2012 Population Estimates and 2012 National Population Projections", December 2012