

A panoramic view of the Chicago skyline at dusk, with numerous skyscrapers illuminated against a dark blue sky. The lights from the buildings reflect on the calm water of a lake in the foreground.

# The Future of Transportation

Bryan Mistele, President and CEO, INRIX



# Key Transportation Problems



8B

Hours wasted in traffic by US  
commuters



1.2B

Gallons of extra fuel wasted  
due to congestion



37K

Annual deaths on US  
roadways

# Industry Inflection Point: The ACES



## Autonomous



## Conected



## Electric



## Shared



# The Coming Flood of Data - Autonomous Vehicles

## Cameras

~20-40M

BYTES PER SECOND

## Radar

~10-100K

BYTES PER SECOND

## LiDAR

~10-70M

BYTES PER SECOND

## GPS

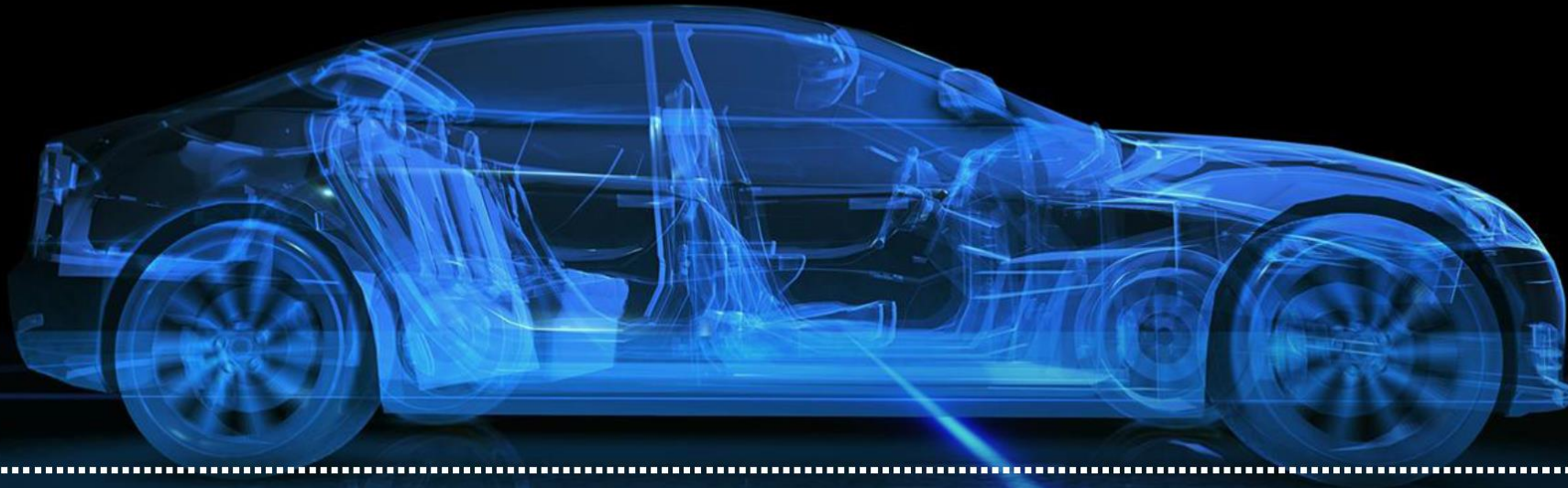
~50K

BYTES PER SECOND

## Sonar

~10-100K

BYTES PER SECOND



Total: 4,000G bytes per day



# Data Mining the Smart City

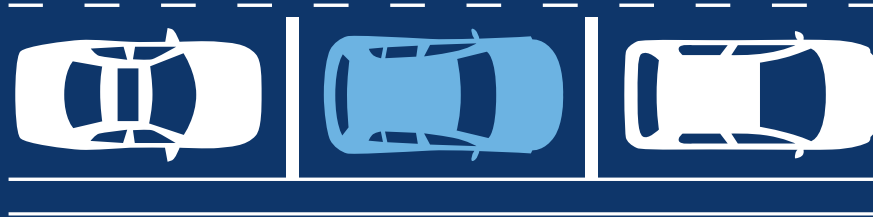
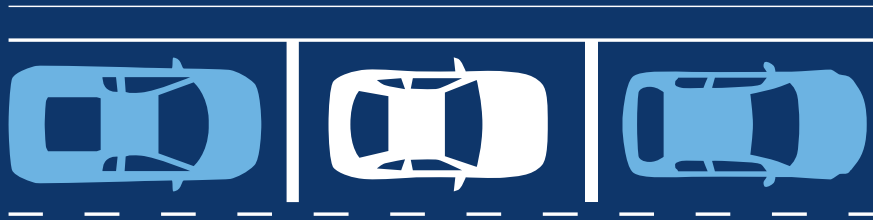
We leverage a connected network of IoT sensors, devices, cars and drivers





# Reduced Congestion

The nightmare of finding parking goes away as vehicles just pull up to load and unload passengers



Today

Tomorrow





# Increased Safety

Top mounted **LiDAR** beams 1.4 million laser points per second to create a 3D map of the car's surroundings.

There are **20 cameras** looking for braking vehicles, pedestrians, and other obstacles.

A **colored camera** puts LiDAR map into color so the car can see traffic light changes.

**Antennae** on the roof rack let the car position itself via GPS.

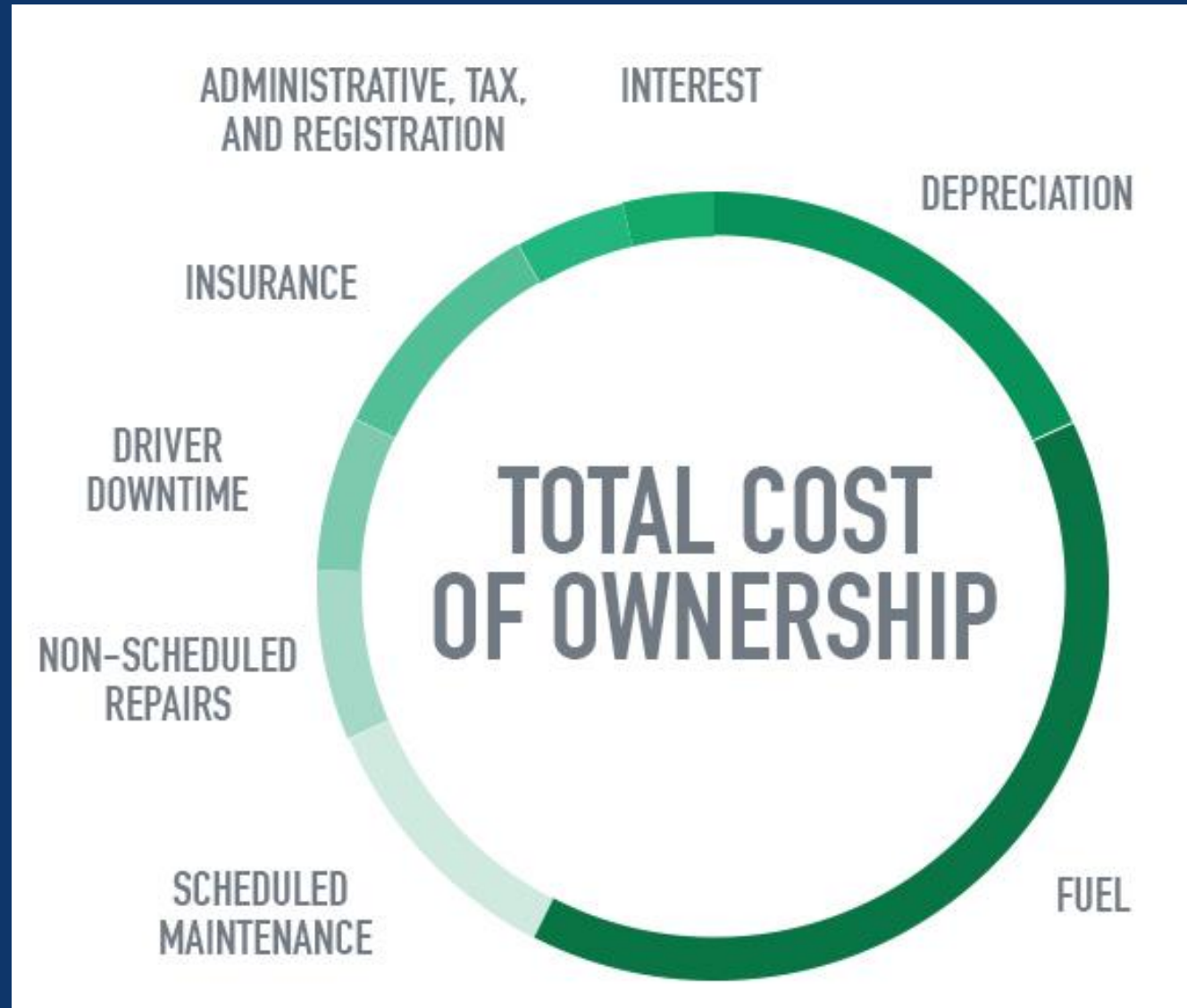


**LiDAR modules** on the front, rear, and sides help detect obstacles in blind spots.

A **cooling system** in the car makes sure everything runs without overheating.



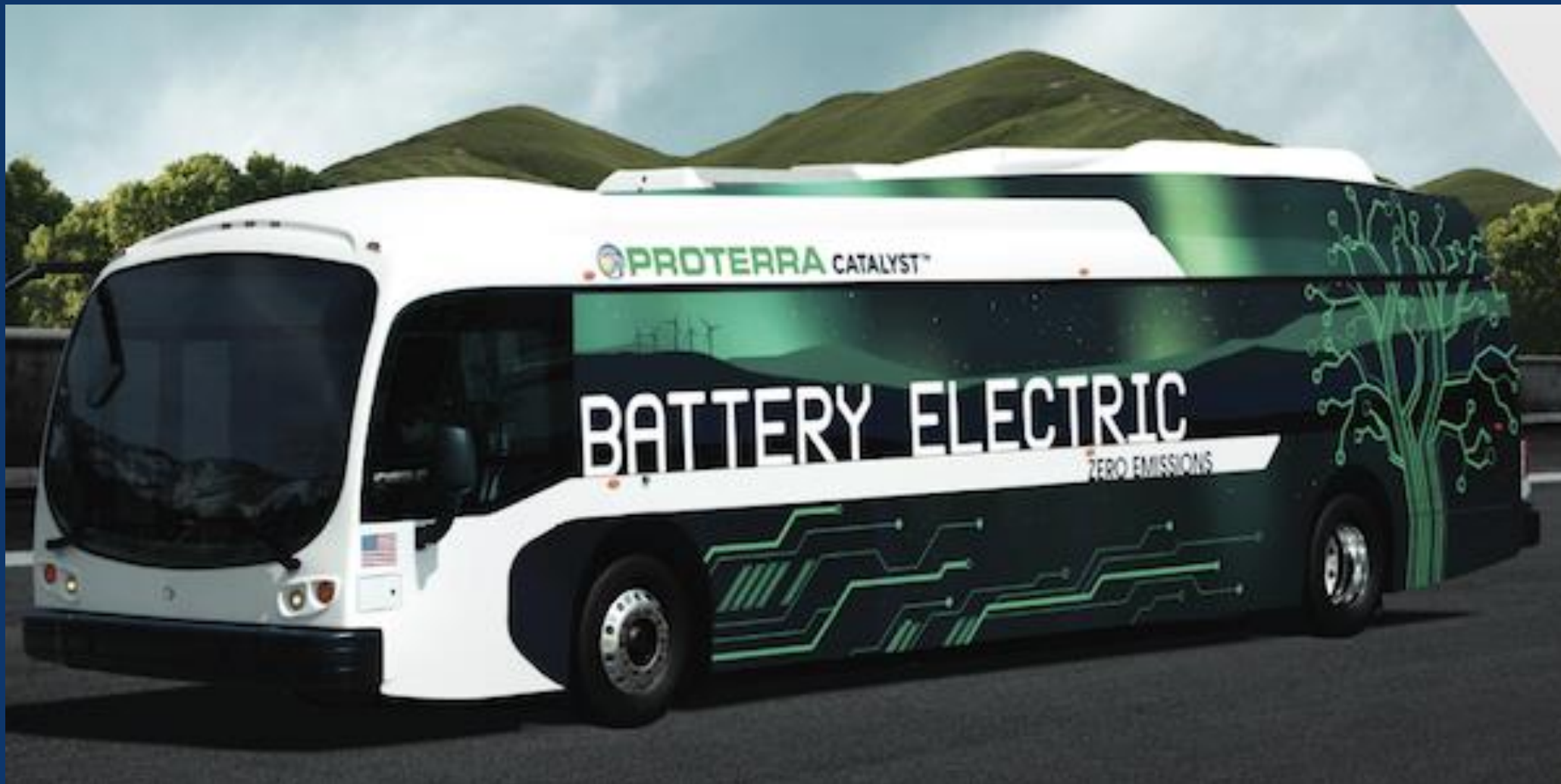
# Lower Cost of Transportation



# More Convenient



# More Environmentally Friendly



# Cities Open Up

Fewer parking lots means more room for parks, playgrounds, homes and shops



Today



Tomorrow



# More Accessible

Anyone can use an autonomous vehicle, regardless of age or disability



Today



Tomorrow



# Benefits of the ACES

- ✓ Reduced Congestion
- ✓ Increased Safety
- ✓ Lower Cost of Transportation
- ✓ More Convenient
- ✓ More Environmentally Friendly
- ✓ Cities Open Up
- ✓ More Accessible

