

The background image shows the interior of a vehicle, likely a truck or van, with a focus on the driver's seat and the center console. The seat is upholstered in a light-colored material, possibly leather or vinyl, and features a central console with several buttons and a gear shift. The text overlay is a semi-transparent dark rectangle with yellow text. The text reads: "Community College ITS Workshop" on the first line, "September 20, 2017" on the second line, "Randy Johnson, P.E., PTOE, ACTAR" on the third line, and "Kansas City Scout" on the fourth line.

Community College ITS Workshop  
September 20, 2017

Randy Johnson, P.E., PTOE, ACTAR  
Kansas City Scout

The Future is Now



# ROAD TO TOMORROW



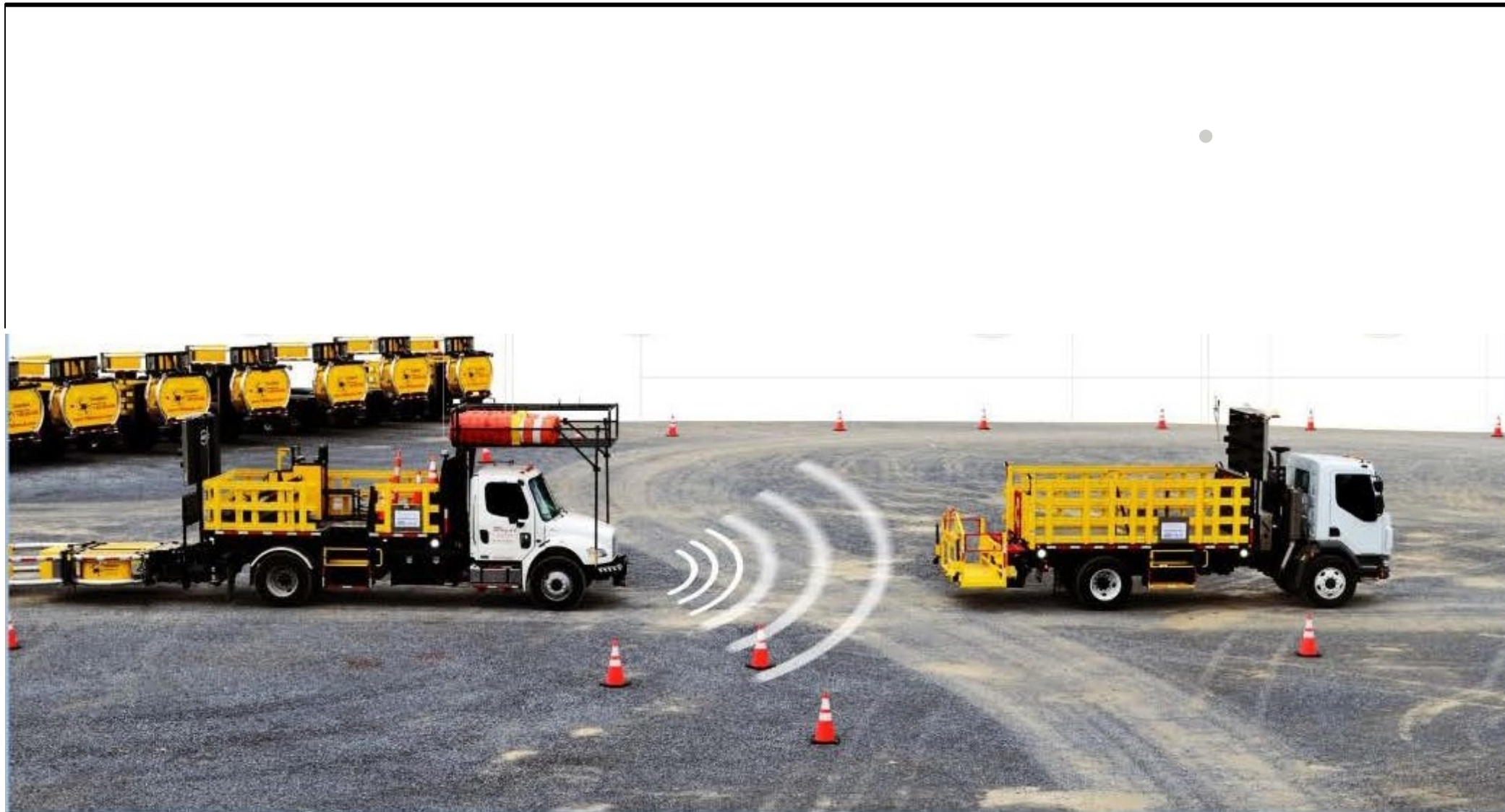
- Prepare *MoDOT* to integrate 21st century technologies into our transportation system and services

# Solar Roadways



- Produce clean renewable energy for homes, businesses and electric cars on the roadway
- Heating elements to prevent snow and ice accumulation
- Panels have microprocessors that allows the panels to communicate with each other, a central control station, and vehicles
- LED lights to create lines and signage without paint

# "Autonomous" Trucks



- Purpose - To remove driver from first warning vehicle in mobile highway operations
- Leader-follower concept with wireless communications

# Rural Queue Warning System

- Utilizes MoDOT's real-time speed probe data
- Post automatic messages on ruralDMS
- Focused on alerting traffic as soon as possible and reduce secondary accidents

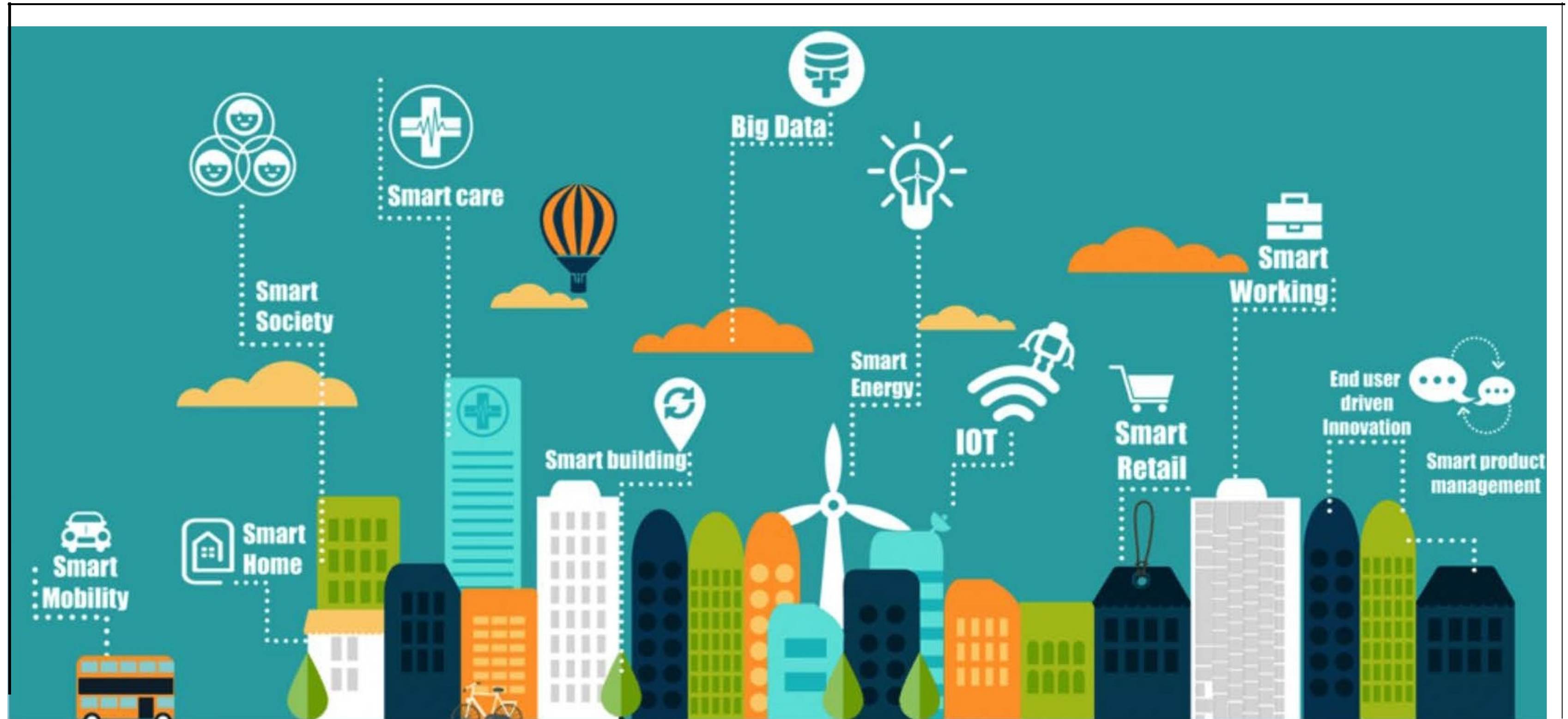


# Hyperloop One "Global Challenge"

- Kansas City - Saint Louis route is a 240-mile mixed system (passengers + cargo) that would run parallel to I-70. About a 25 minute commute
- Benefit from access to the 2nd and 3rd largest rail hubs in the nation

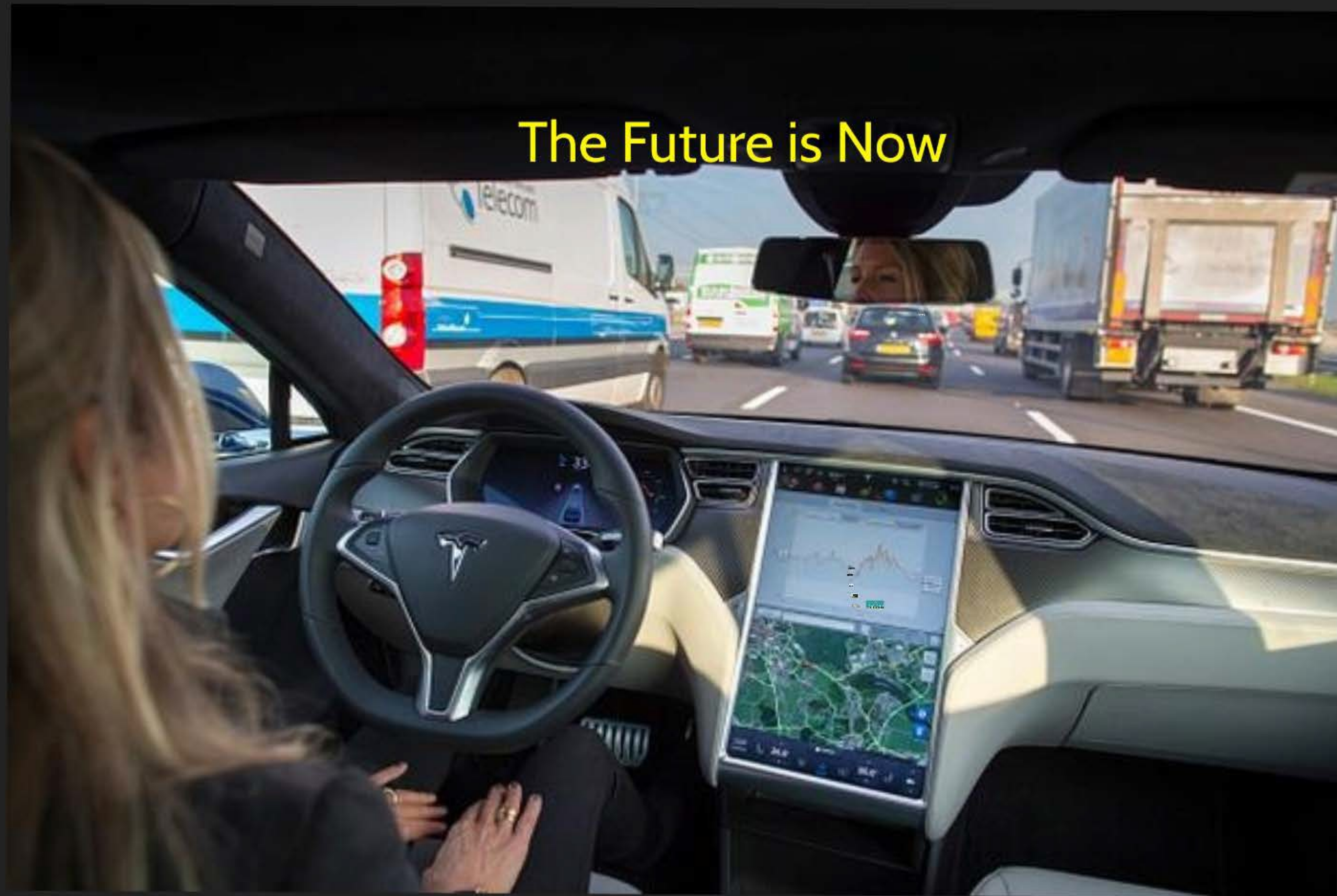


# Smart City - Kansas City





The Future is Now



What does ITS really mean?

I = Innovative

T = Technical

S = Synergy

# Technical Needs

## Network/Communications

- Basic understanding of components and how it all fits together (switches, routers, IP addresses, fiber optics, dedicated short range communications, etc....)

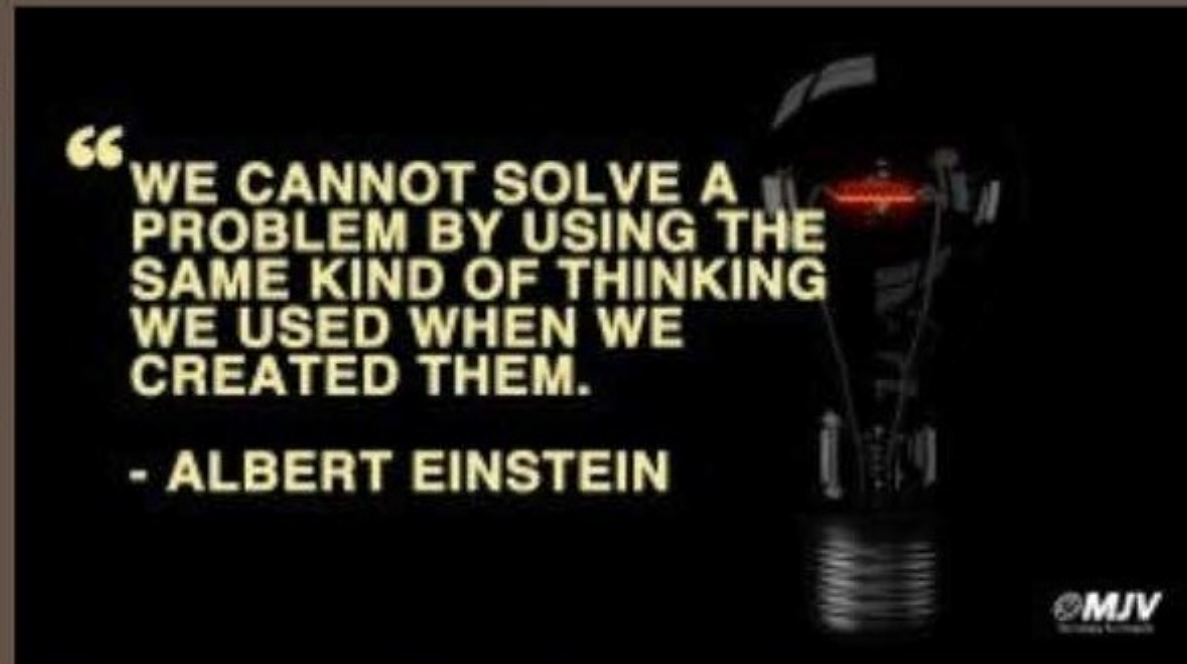
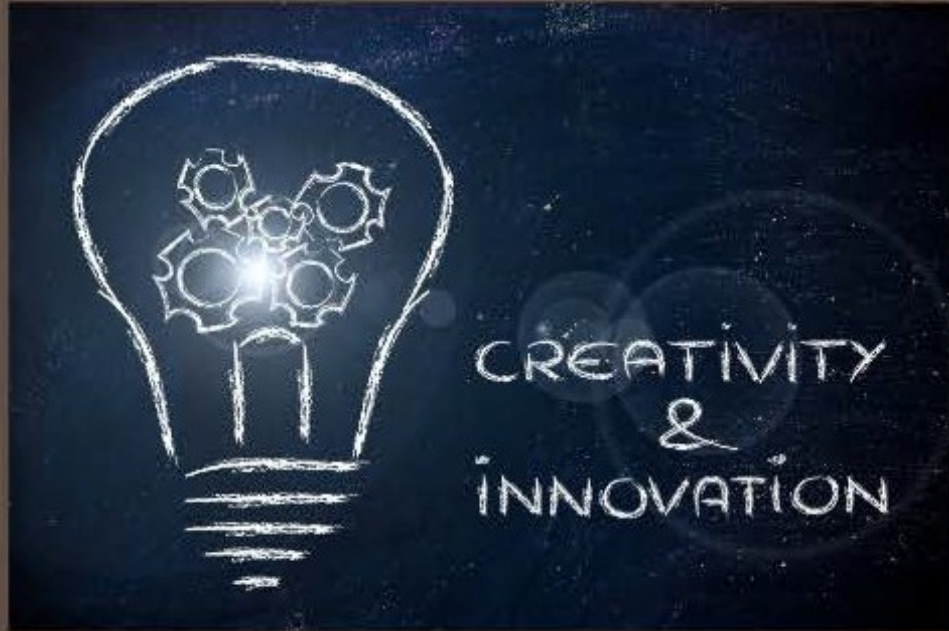
## Traffic Technician

- Basic understanding of traffic operations such as traffic signal/ramp meter control and capacity analysis. Enjoys data analysis

## Project Management/Construction Management

- Oversee project design and construction of ITS infrastructure

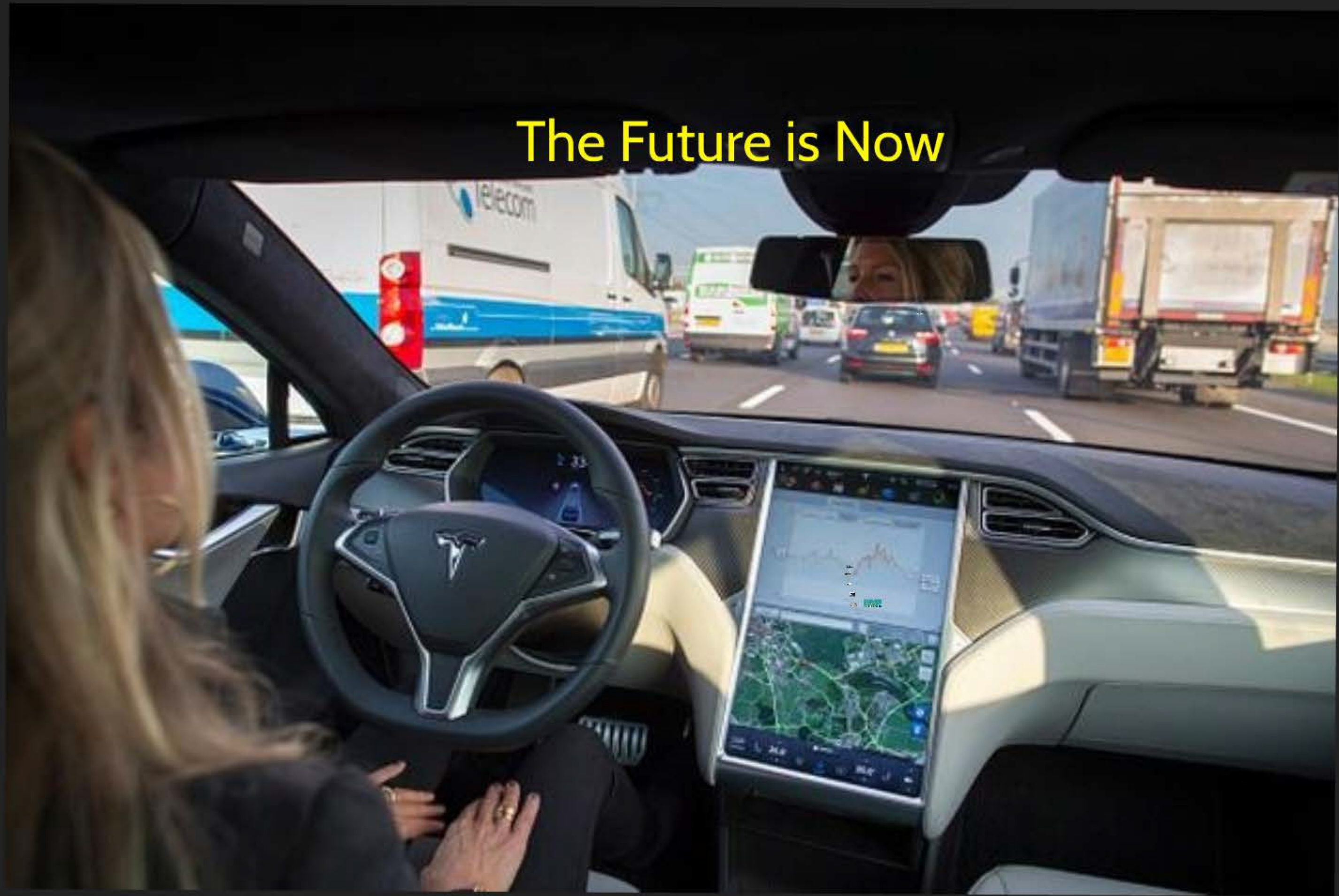
# Innovation



Teamwork  
Unity  
Collaboration  
Partisanship  
PARTS  
Synergism  
CO ACTION  
INTERACT  
INTERACTION  
Harmony  
Working together  
Synergy  
Enhance  
PARTS  
UNITY  
INTERACTION  
Whole  
Combined effort  
Synergy  
COOPERATION  
Partners  
Interaction  
Parts  
Partner  
Co-action  
Joint Effort  
AGENTS  
Unit  
Joint Action  
SYNERGISM  
Combination  
CONNECTION



The Future is Now



# Looking Ahead

- Internships and Guest Speakers - gain current knowledge
- Advantages of Community Colleges
  - More technical training
  - Smaller investment to determine if like specific field
  - Organizations help employees pay for continuing **education**



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