Tom Blair
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R2T Introduction

• Announced in June 2015
• Offers up I-70 as a 200-mile laboratory for the “highway of the future”
• Seeking ideas from private industry, innovators and entrepreneurs
• Focused on new technologies and new funding mechanisms
What Have We Done?
What Have We Learned?

• Technology is changing fast
• Will disrupt our traditional transportation systems and services
• No DOT is totally prepared
• No DOT is seeking revenue from these opportunities
Grant Writing Working Group

• Grant Applications Submitted for:
  – ATCMTD
    • FHWA’s Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) Initiative
  – STSFA
    • Surface Transportation System Funding Alternatives
  – T2 Innovation Funding
    • Technology Transfer Innovation Funding
Truck Platooning Pilot Project
Internet of Things Broker Procurement

- Request for Proposal (RFP) was published this summer
- Potential for future revenue generation was given priority in scoring criteria
- Winning proposal to be announced in 2017
Smart Highway Pilot Project

• Developing Request for Proposals (RFP)
• Innovator should demonstrate:
  – A platform utilizing technology and data services
  – Viable large-scale revenue generation
• Winning proposal(s) should be announced in 2017
Solar Roadways Pilot Project
Solar Project at the Historic Route 66 Welcome Center at Conway, MO
@Route66Solar
Learn More and Submit Your Idea at:

http://www.MoDOT.org/Road2Tomorrow

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The Internet of Everything:

A mind-blowing glimpse into a more convenient, connected life
Introducing Breezi
The only smart device that listens to your HVAC
INTRODUCING ACTIVEPROTECTIVE’S REVOLUTIONARY NEW SMART BELT

We’ve developed a belt that automatically deploys airbags over the hip when a fall is detected.
OUR STORY
Changing The Way The World Travels™

BUY MODOBAG NOW

CHANGING THE WAY THE WORLD TRAVELS™
Autonomous Cooler !!
Volvo's new self-driving truck follows trash collectors like a dog
Emerging Transportation Technologies
COLLISION PREVENTION AND MITIGATION

- Anti-Lock Braking System
- Automatic Emergency Braking
- Adaptive Headlights
- Bicycle Detection
- Brake Assist
- Forward Collision Warning
- Left Turn Crash Avoidance
- Obstacle Detection
- Pedestrian Detection
- Traction Control
Customers want convenience
- Easy access to information such as concierge services or open parking spots

They want dynamic pricing
- Lower insurance premiums for safe or infrequent drivers

They want safety and security features
- Driver coaching, medical assistance, navigation alerts, notification of car theft

They want maintenance services
- Remote-vehicle diagnostics, and predictive/automated maintenance services based on aggregated data

Commercial customers want fleet management
- Optimized utilization of fleet (including driver, freight, and service management)

A Dumb Bridge

IF YOU WILL HIT THIS SIGN, HIT THAT BRIDGE
Driver Infrastructure Interface (DII) (static or dynamic sign)

Driver Vehicle Interface (DVI) Example
Waze App believes public roads are intended to be used by all citizens, including to alleviate gridlock.

USA Today – March 2017

A sign used in Fremont, Calif. to warn drivers that no left turns will be allowed from 3:00 - 7:00 pm, to keep people from taking shortcuts through the town. It warns people not to trust their mapping apps.

(Photograph by Noe Veloso, Principal Transportation Engineer Public, Fremont Works)
“Alexa, how much gas is in my car?”
Mercedes-Benz is connecting the Amazon Echo and Google Home to all its new cars

April 2017

“The best way to predict the future is to create it.”

- Abraham Lincoln
Shell App Lets Jaguar Drivers Pay for Gas Using the Infotainment Screen
Delivery to your Trunk?
UberEats and Volvo Debut All Star Restaurant, a Rolling Concept
Goodyear Eagle 360 Urban tyre revealed with artificial intelligence
5th Ave. NYC Traffic in 1900
5th Ave. NYC Traffic in 1913
5th Ave. NYC Traffic in 1913
The Magnificent Ambersons (1942)
U.S. DOT advances deployment of Connected Vehicle Technology to prevent hundreds of thousands of crashes
November 2016
Impact of one Autonomous Vehicle

Dissipation of stop-and-go traffic waves via control of a single autonomous vehicle
Google’s Waymo
“Way forward in Mobility”
Ford plans self-driving car for ride share fleets in 2021
“Full Self-Driving Hardware on All Teslas”
October 2016
Otto and Budweiser:
First Shipment by Self-Driving Truck
October 2016
First self-driving car ‘race’
Buenos Aires Formula E ePrix
February 2017
Cadillac Book
Concierge Service That Will Disrupt the Rental Car, Dealer Industries
February 2017
GM Expands Maven On-Demand Ride Sharing to Monthly Rentals
Deloitte’s Prediction
UberEats and Volvo Debut All Star Restaurant, a Rolling Concept