Autonomous Commercial Vehicles: The Economic Opportunity in Indiana

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The autonomous vehicle supply chain

Secondary Business Impact

Manufacturing

Sensors

Software

Maintenance

Vehicles

Transport company Users

Roads

INDOT

Drivers/Logistics companies

Primary Business Impact
Basic Takeaway

• Primary business opportunity
Answer the question, how does the introduction of autonomous vehicles for transporting my products help my business competitiveness?

• Secondary business opportunity
Answer the question, how does the introduction of autonomous vehicles help my revenue stream?
Primary Business Impact

• No driver downtime so longer operating hours for vehicles
• Quick response deliveries
• More flexible delivery schedules
• Predictable deliveries
• Use of IoT to synchronize schedules
• Better on time, reliable deliveries means lower safety stocks, lower costs of operation
• Faster deliveries can command a premium price
• Thus improved business competitiveness
Secondary Business Impact

- Inclusion and maintenance of sensors on highways
- Software to coordinate movement
- Maintenance of vehicles
- Synchronization of loads software
- Local drivers and load sharing
- Platooning of vehicles
- Impact on rest areas
- New vehicle production
INDOT highway impact

• Dedicated narrower lanes for autonomous vehicles
• Role of industry in sensor planning and maintenance
• Monitoring and coordination of autonomous vehicle flow to enable overall congestion reduction
• Choice of roads to enable autonomous vehicles while ensuring safety
• **Logistics leadership to attract new businesses to Indiana**
So what do we do to maximize the economic impact on Indiana?

- Pam Fisher is our sponsor for an INDOT grant to study the issue
- New technologies (Camera based, LIDAR, Radar, Ultrasonic, Infrared, GPS) based industries integrated with road maintenance
- Benefits to improved safety (due to lower driver error based accidents) (330,000 truck related accidents, around 4,000 fatalities, 90% driver related – NHTSA)
- Reduced fuel consumption and insurance costs
- Solution to driver shortages
- Survey of industry participants
- Sketch of a roadmap for INDOT to maximize economic impact
Thank you

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<th>Primary industries</th>
<th>Secondary Industries</th>
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<td>Schneider National</td>
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<td>UPS</td>
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