

Autonomous Commercial Vehicles: The Economic Opportunity in Indiana

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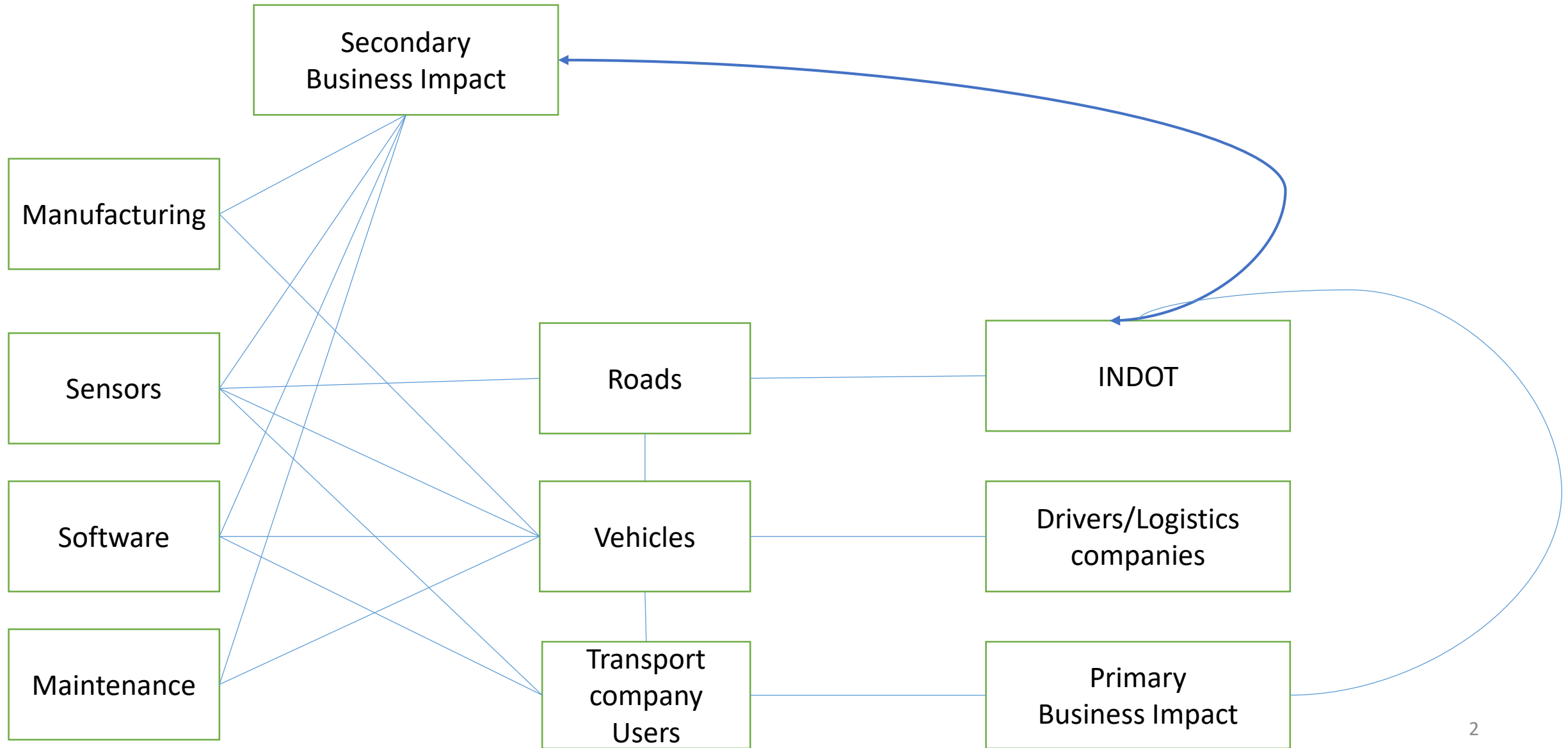
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The autonomous vehicle supply chain



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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Primary industries	Secondary Industries
Schneider National	Peloton
UPS	Delphi
FedEx	
USPS	
Wabash National	
Cummins	
ZF	
Lozier	