Alliance SHPR2 Data Mining
Chalmers, University of Michigan, & Virginia Tech
Sponsor: Auto Alliance

Focus: Distraction and Crash Risk

Phase II: What role do methods play?  Phase III: What role does context play?
Analysis of SHRP2 Data to Understand Normal and Abnormal Driving Behavior in Work Zones

Chalmers & University of Michigan
Sponsor: US Dept of Transportation (Federal Highway Administration)

Focus: Methods and metrics of normal driving behavior to identify abnormal driving behavior in contrast

Application: Work zone safety

Principal Components Analysis

Probabilistic Topic Modeling
Big & Continuous Data Improves Our Understanding of Mobility and Paves the Way for an Energy Transition

1. **Mobility** patterns of 18 cities and 7 countries

2. **Traffic flows**, congestion, accidents and incidents, and their interrelationships

3. **Agent-based model** of the **behavioural changes** that would accompany high adoption rates of **shared/autonomous/electric vehicles (EVs)**

**Synthetic Sweden**
CHALLENGES AND NEEDS IN FUTURE CIRCULAR MATERIAL SYSTEMS FOR ELECTRIC AND AUTONOMOUS VEHICLES

PURPOSE
Identify future challenges of recycling processes and supply chain systems, triggered by the development of electric and autonomous vehicles.
- Roadmap and guidance
- Specifics on batteries and glass

PROBLEM
Development triggers an increased use of complex materials, and combinations of them, for reason of weight, functionality, etc. Such components need both efficient recycling processes and effective recycling supply chains.

Britt-Marie Steenari, Burcak Ebin, Mats Johansson, Martin Kurdve
Mixed Methods for the Biography of a Street
Useable Pasts for Urban Mobility Transitions
Martin Emanuel, Per Lundin
Technology management and organization
Autonomous and Connected Trucks for Electric Distribution (ACTED)

**Purpose:** To integrate urban logistics, business modeling, and control with communication engineering to study the use of ACTED for urban freight transport.

**Focus:** Medium-duty trucks operating from distribution centers to urban environments and smaller vehicles distributing the last-mile within large traffic generators.

**Dates:** 2018-2019