

Vision:

A University / Industry / Government Consortium Recognized as the Global Center of Excellence in Transportation Active Safety

Partners:

- Indiana University – Purdue University Indianapolis
- Purdue University
- Indiana University
- Rose-Hulman Institute of Technology
- Delphi Corporation



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Advancing the Use
of Active Safety Systems
to Reduce Vehicle Crashes
and Save Lives

Active Safety - The New Safety Frontier

Automotive safety is a critical global issue. Societal costs of vehicular crashes are daunting and affect everyone.

What is Active Safety?

Active safety systems use sensors to continually monitor a vehicle's traffic environment and intelligent control systems to evaluate the situation and identify high-probability crash events. Using that information, these systems alert drivers to potentially dangerous situations, helping provide the time the driver needs to make an assessment and take action. The systems also employ automatic vehicle control such as braking or steering to avert an imminent crash or to minimize crash energy. In the event of an unavoidable crash, active safety systems can help optimize existing passive systems.

TASI Purpose

The Transportation Active Safety Institute (TASI) will accelerate the development and introduction of active safety products into the market to help enhance vehicular safety and reduce automotive related fatalities, injuries and property damage.

The Institute will provide the nurturing, highly collaborative environment to facilitate global interaction among automotive suppliers, vehicle manufacturers, government regulatory agencies and academia.

Typical of new technology introductions, there must be industry alignment on architecture and performance standards to have sufficient scale to successfully offer an affordable product. Building on the pioneering automotive legacy of its industry partners, TASI will spur global expansion of active safety.

Technological and Community Benefits

TASI will play a global role in maturing and standardizing active safety technology. TASI will develop common protocols, processes and testing activities and will provide enhanced research and testing services for vehicle manufacturers and their suppliers.

TASI Services

- Accident/Consumer Data Mining
- Common Industry Protocols/Processes
- Consumer Awareness/Education
- Evaluation/Validation
- Human Factors/Biomechanics
- Technology Research and Development
- Testing Methodology



2005	US	EUROPE	JAPAN	KOREA	CHINA
Vehicles (millions)	245.6	310.7	82.8	18.5	130
Injury Crashes (millions)	18	14	0.9	0.2	0.5
Actual Fatalities	43,443	44,295	7,931	6,376	97,864

Sources: NHTSA, IRTAD, State Administration of Work Safety-China, ICTCT Beijing Proceedings

TASI

TASI was founded in February, 2006, as a consortium led by the Purdue School of Engineering and Technology (IUPUI) and received official recognition as a university center in January, 2007.

The four participating universities, Indiana University, IUPUI, Purdue University, and Rose-Hulman Institute of Technology are renowned for applied research, advanced technology initiatives and world-class education. With more than 24,000 faculty and staff, plus 108,000 undergraduate and graduate students pursuing degrees in a wide range of fields, they have combined research expenditures of \$630 million. These universities will assist in generation of new innovations and expansion of the active safety knowledge base.

TASI operates as a self-sustaining not-for-profit organization, bridging the gap between innovation and commercialization.

Societal Benefits

Financial and emotional costs of traffic crashes are high. Passive safety systems, specifically seatbelts and airbags, have significantly reduced the number of motor vehicle injuries and fatalities, improving vehicle safety appreciably. To further enhance safety on the road, active safety must become the critical focus. Active safety systems not only help reduce the number and severity of crashes, but will help sustain a decline in injury and deaths.

Economics

2005 Economic Cost of Motor Vehicle Traffic Crashes in the US of \$280 Billion

Projected Global Active Safety Market Revenue of \$2 Billion in 2010