



Report of the 23rd International Technical Conference on the Enhanced Safety of Vehicles

June 25-28, 2013

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Backgrounds

- The ESV Program originated in 1970 under the NATO Committee on the Challenges of the Modern Society
- **Member Countries supporting the ESV program**
 - Governments: U.S., France, Germany, Italy, U.K., Japan, Sweden. Canada, Australia, Netherlands, Hungary, Poland, the Republic of Korea
 - International Organizations: EC, and EEVC
- In June 2005, the 19th ESV Conference, held in Washington, DC, the Republic of Korea became one of the member Governments
- In 2011, the 22nd ESV conference, announced that the Republic of Korea will be host of the 23rd ESV conference



Conference Details



Theme	Research Collaboration to Benefit Safety of All Users
Date	May 27 (Mon) ~ 30 (Thu), 2013
Venue	Coex, Seoul, Republic of Korea
Organized by	U.S. Department of Transportation (U.S. DOT) National Highway Traffic Safety Administration (NHTSA)
Hosted by	Ministry of Land, Infrastructure and Transport (MOLIT) Korea Transportation Safety Authority (KOSTA)
Attendee	1,113 participants from 21 countries (domestic: 764, abroad: 349)

Major Events



- Opening ceremony
- ESV 2013 award
- Plenary / Special / Technical session
- Government status report
- Exhibition
- Technical tour
- Closing ceremony

Opening Ceremony



- **Key Note Speech:** Suh Seoung-hwan, Minister of MOLIT
 - Highlighting strong collective efforts to enhance the vehicle safety
- **Welcome Remarks:** David L. Strickland, Administrator of NHTSA
 - Encouraging participants as international safety partners
- **Official Remarks:** Chung Il-young, President of KOTSA
 - Expecting more precious ideas for the better future



ESV 2013 Award Recipients



- U.S. Government Special Awards of Appreciation
 - 5 Persons: Germany, Korea (2), Sweden, U.S.
- U.S. Government Awards for Safety Engineering Excellence
 - 5 Persons: Germany, Japan, Korea (2), Sweden



Plenary Session



➤ Theme: Global Collaboration for Vehicles Safety Research

- Collaboration area: crash protection, crash avoidance, and future vehicles
- Good Example of Global Collaboration: HFC vehicles GTR by WP.29
- Research Collaboration Principles
 - Global approach, Local Application
 - Data Driven, Culturally Sensitive
 - Standardized Data Collection, Standardized Test Protocol
- Future Collaboration: Connected Vehicles, Advanced Automatic Crash Notification
 - Too big for one institute to handle
 - Standardized Communication Protocol, Communication Security
- To harmonize regulations is to find meaningful ways



Special Session / Workshop



➤ Crash Avoidance

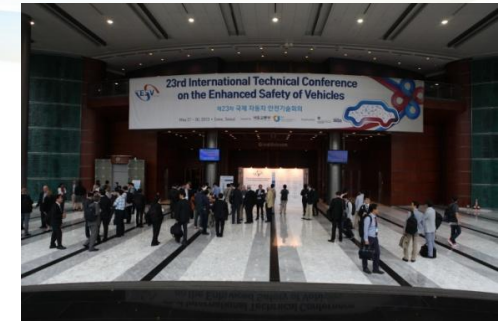
- Collaboration offers many positive benefits to the public and other stakeholders, leverages resources to address common needs and interest and enables global harmonization
- The biggest challenge is not a technical one. The biggest challenge is mistrust and behavior

➤ Crashworthiness

- We must refrain from "claiming the victory too early" and not start to cut down on passive safety before the effectiveness of crash avoidance is proven

➤ Biomechanics

- Dummy development and assessment
- Human body and ATD model development and validation
- Accident reconstructions, injury risk curves, ...



Technical Sessions



- More than 240 papers were presented and discussed
 - Active safety: safety performance and effectiveness of driver assistance technologies, ...
 - Passive safety: performance of protection systems, restraint system design and performance challenges
 - Biomechanics: crash injury mechanisms and human modeling, crash test dummies, ...
 - Electric vehicles, battery and fuel cell safety
 - NCAP and non regulatory approaches for improving safety
 - Student safety technology design competition
 - International Rulemaking: GTR Process and Beyond



Government Status Reports

➤ Australia

- National road safety strategy 2011-2020 was established in 2011
- 5 areas of activity: safe roads, speeds, vehicles, people and making it happen



➤ Japan

- The 9th fundamental traffic safety program for 2011-2015 set in March 2011
- Japan would like to collaborate internationally to establish GTR

➤ Korea

- 30% reduction of road traffic fatalities year 2013-2017
- Established 1st automotive policy master plan (2012-2016) in 2012



➤ Sweden

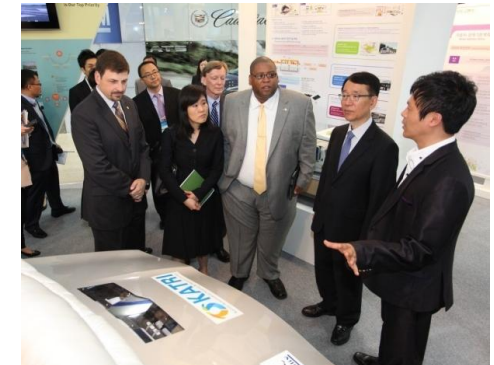
- EU for Sweden 50% reduction of fatalities year 2001-2010 (achieved)
- Sweden approximately 220 in year 2020 (50% reduction/10 years)

➤ U.S.

- Major rulemaking Initiatives: EDR, pedestrian safety, hydrogen GTR, ...
- Near term priority research: oblique / low overlap frontal, advanced forward collision avoidance, V2V communications, distraction, ...
- New area of focus: older occupant, electronic control systems, automated vehicles, ...

Exhibitions

➤ Under the theme of “Vehicle Safety Technology”, major automobile companies, auto parts manufacturers, NHTSA and MOLIT participated and provided various attractions (Total 30 companies / organizations)



Social Program



➤ Welcome Reception

- More than 700 people participated
- Great networking opportunity with the play of fantastic Korean traditional music



➤ Gala Dinner

- 295 participants (201 foreign)
- Attendees experienced the high level of Korean traditional culture (like Taekwondo performance)



Technical Tour

▶ Korea Automobile Testing & Research Institute



▶ Samsung Digital City & Hyundai Motor Company



Closing Ceremony

- Farewell Remarks
- Student Competition Winners
 - Winner: California Polytechnic State University
 - 2nd Place: Seoul National University
- Next ESV Conference
 - Goteborg Sweden, June 8-11, 2015
- Closing Remarks



**Thank you
for your attention!**