What is IVBSS?

• A New US DOT Safety Initiative

• Goal:
  To work with industry to accelerate introduction of integrated vehicle-based safety systems into the U.S. vehicle fleet.

• Addresses 3 Crash Types:
  • Rear End
  • Road Departure
  • Lane Change
Why is Integration Important?

- Increased safety benefits
- Better overall system performance
- Reduced system cost (economies of scale)
- Improved driver and fleet acceptance
- Enhanced marketability

Rear-end, run-off-road, and lane change crash countermeasure systems could prevent over 48% or 1,836,000 target crashes.
Crash Problem/Crashes Avoided*

3,877,000 total crashes – 1,836,433 crashes avoided (48%)

*For light vehicles and heavy trucks using 2003 GES Data
Program Timeline

Preparatory Analyses

System Design

Build and validate prototype vehicles

Conduct FOT

Perform independent evaluation

Go/No Go  Partner Selection  Performance Specifications  Test Procedures  Vehicle Validation  FOT Start  FOT End  Benefits
7/04  10/05  4/06  10/06  4/07  10/07  4/08  10/08  4/09  10/09

Gov’t-initiated activity
Partner-led activity

Benefits
IVBSS Program Activities

**Preparatory Analyses**
- Solicit stakeholder input
- Develop functional & evaluation requirements
- Conduct technical review
- Investigate preliminary DVI concepts
- Assess business case/ deployment potential
- Prepare program execution strategy

**System Design**
- Develop operational concepts
- Develop performance specifications and test procedures
- Conduct technical review
- Investigate preliminary DVI concepts
- Assess business case/ deployment potential
- Prepare program execution strategy

**Develop**
- Develop performance specifications
- Design, build, & test sensor subsystems
- Design, build, & test threat assessment algo.
- Design, build, & test DVI
- Develop objective test procedures

**Build and validate prototype vehicles**
- Design & build data acquisition systems
- Integrate subsystems & build prototype vehicles
- Conduct objective test procedures
- Validate performance of prototype vehicles
- Finalize design & build FOT-ready vehicles

**Conduct FOT**
- Devise FOT Concepts
- Recruit test subjects
- Build vehicle fleet
- Conduct pilot test
- Conduct FOT
- Analyze data & write report

**Gov’t-Industry activity**
- Partner-led activity
- Gov’t-initiated activity

**Perform evaluation**
- Devise evaluation strategy
- Develop evaluation plan
- Develop analysis methods
- Build database & tools
- Analyze data & write report
IVBSS Outreach Activities

- Meeting with Industry **planned for Spring 2006 in Detroit**
- Information sharing/coordination with **EU PReVent** program through ITSWC
- Future meetings with Industry covering **performance specs, objective tests, and early program results** planned for 2007-08
Current Status

- Preparatory Analyses completed
- RFA issued, applications received and evaluated in July-August
- Winning team selected in mid-Sept.
- Contract award finalized Nov. 23
- Public announcement of winning team pending
- Kickoff meeting at NHTSA – Dec. 14
- System Design will start early FY’06
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