#### **Federal Highway Research Institute**



# IHRA-ITS: Recent Developments of the "European Statement of Principles on HMI"

Dr. Christhard Gelau

Tel: +49 2204 43 641

Email:gelau@bast.de

# European Statement of Principles (ESoP)



## Scope:

- EC recommendation, published Dec. 1999 (L19/64)
- Information and communication systems
- intended to be used while driving
- Whether directly related to the driving task or not
- Portable and permanently installed systems
- OEM and after-market systems





# **European Statement of Principles (ESoP)**





# **Principles cover:**

- Design and location of information and communication systems
- Presentation of information to the driver
- Driver system interaction for safe vehicle control
- System behaviour
- Information about the system

# **ESOP - Examples**



- 4.3: "The system should be designed so as not to distract or visually entertain the driver."
- 8.3: "System functions not intended to be used by the driver while driving should be impossible to interact with while the vehicle is in motion, or clear warnings should be provide against the unintended use."

#### **Expansion by Expert Group (2001)**



- Expansion and clarification of Principles with definitions, explanations, rationale and examples
- No specific criteria or verification procedures
- Published by EC in 2001



#### **Evaluation of the ESoP by the EU Member States**



- EU Member States were required by the EC to report on the application of the ESoP by industry until the end of 2001
- Reports were provided by U.K., France, Germany, Sweden and Denmark
- Results are rather heterogeneous (which may be due to differences in the methods adopted)
- European vehicle manufacturers gave selfcommitment to follow Principles

#### **International Developments**



- AAM = Alliance of Automobile Manufacturers (United States)
  - Developing/modifying ESOP
  - Also developing specific compliance criteria e.g.:
    - Positioning of display
    - Definition of excessive distraction
- Other Countries
  - JAMA Guidelines from Japan
  - Canada: Evaluation study of AAM Guidelines

Statement of Principles, Criteria and Verification Procedures on Driver Interactions with Advanced In-Vehicle Information and Communication Systems

**Draft Version 2.1** 

Driver Focus-Telematics Working Group
September 30, 2003

# The eSafety Initiative





- A joint industry-public sector initiative launched by the European Commission in November 2002 with the Report of the eSafety Working Group on Road Safety
- Accelerating development and deployment of new technologies to enhance road safety

Steering Group	
Accident Causation Analysis	Research and Development
Emergency Call (eCall)	Road Maps
Human-Machine Interaction	International Co-operation
Real-Time Traffic and Travel Information	
Heavy Duty Vehicles	User Awareness

## **HMI** from a European perspective



# **Recommendations on HMI:**

- Assess the reports by the EU Member States on the ESoP and "decide on further actions as necessary taking into account the rapid development in this area" (5)
- "The use of portable (nomadic) devices requires urgent assessment of risk" (5)
- "Develop workload assessment, testing and certification methodology and procedures for complex in-vehicle environments ...." (6)

#### **eSafety WG HMI**



# **eSafety Working Group HMI**

- Chair: Annie Pauzie, INRETS, France Alan Stevens, TRL, U.K.
   Christhard Gelau, BASt, Germany
- General objectives:
  - To identify HMI related problems likely to negatively impact on safety or markets for in-vehicle systems including "Nomadic Systems"
  - To further develop existing ESoP based on latest and future technological developments and applications



#### **eSafety WG HMI**



# **Special issues:**

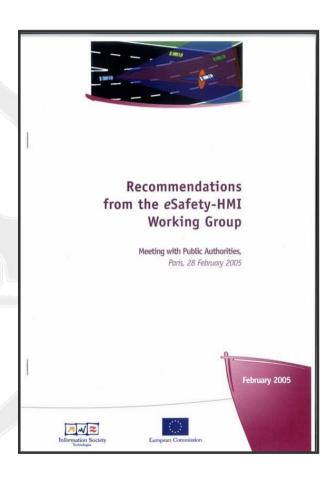
- Short-term focus on identifying the HMI related problems in the introduction of in-vehicle eSafety systems
- Balancing innovation safety
- A specific problem: Nomadic systems
- Targeting amendment of the European Statement of Principles (ESoP)
- Other measures as required



#### eSafety WG HMI recommendations on ESoP



- Explicitly address information presented by Service Providers (e.g. running text)
- Extend scope to include responsibilities of Fleet Managers/Employers
- Identify links with standards, Regulations, Directives, etc.
- Revise ESoP for clarity, maintaining existing structure and principles
- Add specific criteria only where validated and widely agreed
- Seek collaboration with US and Japanese initiatives on HMI guidelines
- ESoP should be widely disseminated and its impact monitored by Member States



#### **Development**



- Expert Group formed (April 2005)
- Contribution to funding via EC projects HUMANIST and AIDE
- Mandate:
  - Clarification of principles with better links to standards, Regulations etc.
  - Implementation of WG-HMI recommendations
  - Verification (where practicable)
  - International implications

#### **Membership**

- Alan Stevens, TRL (UK)
- Annie Pauzie, INRETS (F)
- Christhard Gelau, BASt (Ge)
- Bénédicte Vezier, Renault (F)
- Anders Hallen, Volvo (SE)
- Lutz Eckstein, BMW (Ge)
- Winfried Koenig, Bosch (Ge)
- Trent Victor, VTEC (SE)

#### **Timetable for Next Steps**



- Work by Expert Group from April – July 2005: Revision based on Expansion Document (2001)
- Information Workshop in Brussels June 29
- Member States validation –
   Brussels, September 28
- EC Communication in November 2005







- Mail box:
  - INFSO-eSafety@cec.eu.int

- Web-site:
  - http://europa.eu.int/information\_society/programmes/esafety/index\_en.htm
- eScope (eSafety Observatory): www.eScope.info





# Thank you for your attention!

Dr. Gelau April 2005