

Impact Assessment and the Intelligent Car Initiative

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Intelligent Car Initiative on smart, safe & clean transport



i2010

Intelligent Car Initiative

- Composed of 3 pillars
 - eSafety Forum (stakeholders)
 - ICT research program
 - Awareness-raising actions

eIMPACT Objectives address some of the ICI actions

- Carry out a socio-economic impact assessment of IVSS
 - expected impacts on traffic safety and efficiency

- Provide perspectives on the market introduction of IVSS
 - integrating the input from the impact analysis, policy options and stakeholder roles

eIMPACT – Some Facts

- **Socio-economic Impact Assessment**
→ makes use of cost-benefit analysis, but results are not limited to it
- **Geographical Scope: Europe → EU-25**
- **Time Horizon: Detailed results for 2010 & 2020**

Partners



DAIMLERCHRYSLER

IFV Köln



BOSCH
Invented for life



traffic mobility logistics.



movea



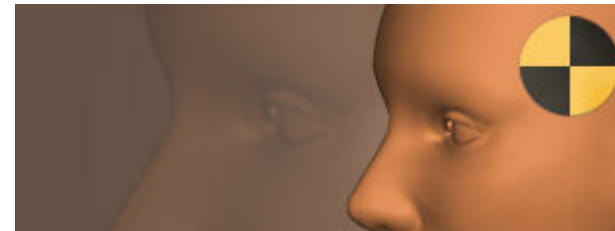
Information Society
and Media



Overview Impact Assessment eIMPACT



Traffic



Safety



Cost-benefit



Cost-Benefit Assessment (WP2000)

- **Result:** benefit-cost ratio for each investigated application, classified according to thresholds
- **Focus of assessment:**
 - Safety & Traffic flow benefits
 - Costs (system implementation, operating & maintenance, infrastructure equipment or adaptation)
 - Sensitivity Analysis
- **Methodology used:**
 - Based on SEiSS study approach
 - Monetarization of safety impacts based on damage costs approach
 - Uniform cost unit rates as basis for European scale assessment

Safety impact analyses (WP3300)

- Focus:
 - Safety impact assessment of IVSS in the future (2010 and 2020)
 - Fatalities, severe and slight injuries, accidents
- Methodology:
 - Investigate 9 Mechanisms, via “ITS safety impact channels”
 - Direct & indirect effects
 - Modifications of user & non-user behavior
 - Modification of exposure, modal & route choice

Traffic impact analyses (WP3200)

- Focus:
 - Assess traffic impacts via efficiency and surrogate safety measures
- Methodology:
 - Translate IVSS functionality into vehicle behavior on road
 - Apply traffic simulation models and quantitative analyses
 - Scale up results

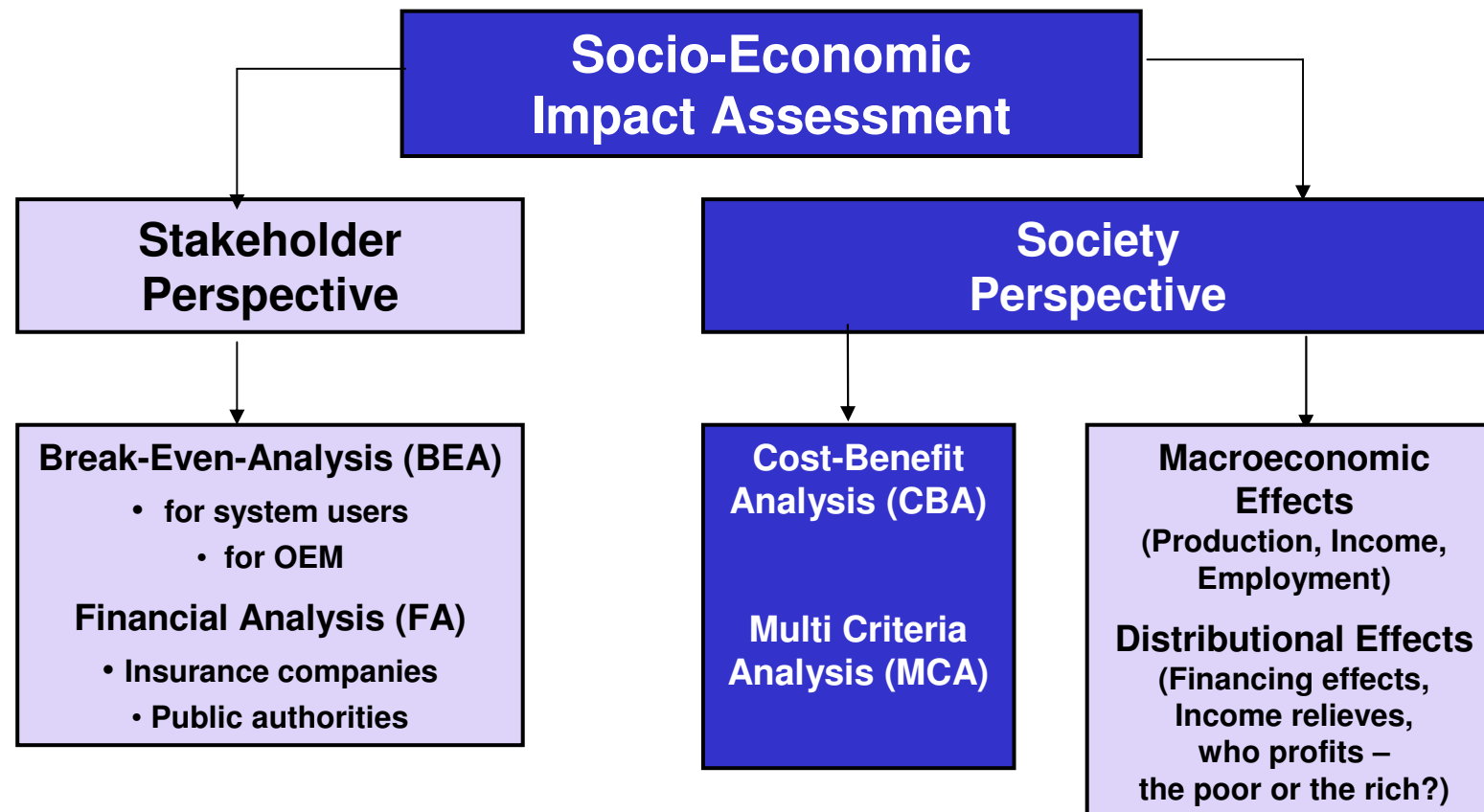
Policy Options for facilitating market introduction

- Identify relevant policy levels and options for accelerated deployment of systems
- Develop policy implementation strategies incorporating user/Industries perspectives

Stakeholder Analysis

- CBA enlarged by economic impact assessment for the stakeholder groups
 - Users
 - OEMs
 - Insurance companies
 - Public authorities
- Macro-economic effects evaluated
 - Increase of production value
 - Increase in income
 - Increase in employment
- Attempt to answer the questions about social effects:
 - Who gets the benefits?
 - Is the distribution of benefits desired or not?

Soc.-Econ. Impact Assessment Framework



Systems recommended for in-depth assessment (WP1000)

- Vehicle Dynamics Management, e.g. ESP
- Wireless Hazard Warning, e.g. WILLWARN
- eCall
- Lane Keeping Support, e.g. SAFELANE
- Intersection Safety, e.g. INTERSAFE
- Collision Avoidance / Emergency Braking
- Full Speed Range ACC (Frontal Collision Warning included)
- Pre-Crash Safety Applications, e.g. COMPOSE
- Speed Alert Systems
- Lane Departure Warning and Blind Spot Monitoring
- Driver Drowsiness Monitoring and Warning
- Night Vision

Where do we stand?

- Socio-economic results available late 2007.
- Project to finish end 2007.
- More information?
 - See www.eimpact.eu
 - Contact Kerry Malone kerry.malone@tno.nl