

Human Behaviour as key to C-ITS implementation success

Ilse Harms

Chairperson ITS Round table Human Behaviour

#SmartTogether

Beter Benutten



Connecting
Mobility



Movie Connecting Mobility

https://www.youtube.com/watch?feature=player_embedded&v=fhq37_xGZRw



Living Lab NL Smart Mobility



Dutch Round Tables Smart Mobility



Cooperating and Sharing Knowledge to
Accelerate the Implementation of Smart
Mobility on a Bigger Scale



Pioneers in international business

Dutch Round tables

- Enabling and accelerating implementation of Smart Mobility Solutions
- One place in NL where discussions takes place and decisions are made: management with a mandate
- Topics:



Structure of a Round Table

- Open to all...
- ... But with expectations!
- Joint agenda
- Team of ambassadors:
 - Ilse Harms (Chair - the face of the table)
 - Diana Vonk Noordegraaf (Secretary)
 - Matthijs Dicke-Ogenia (Human Behaviour expert)
- Best experts on that theme available (with international network)
- Stakeholders with mandate and connection to practises

Which organisations are represented?

- Government
- Industry
- Knowledge institutes
- Interest groups

Relevance of Human Behaviour for Smart Mobility

- Precondition for Smart Mobility
 - Traffic safety
 - User experience
 - System usage
 - System acceptance
 - Effects on traffic flow
 - Capabilities (e.g. transition of control)
 - Behavioural change

Scope: examples

- How does a road user respond to travel information?
- Which incentives lead to different travel behaviour?
- What are the effects of transition of control on driving behaviour?
- Which opportunities arise from personalised in-car information compared to roadside information?
- How do other road users respond to truck platooning?
- How can Smart Mobility measures improve traffic safety?
- What are the implications of Smart Mobility for vulnerable road users?

Objectives of the round table

Human Behaviour

- Manage the joint development of Human Behaviour within Smart Mobility and usage of round table results
 - Human Behaviour in the core of the primary development process of industry and government
 - Support / national agreements at managerial level
- Bundle and disseminate knowledge on behavioural topics
- A single consultation and decision making structure for Human Behaviour and the creation of a community of human behaviour experts

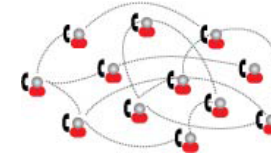
Round table Human Behaviour as label



Bundle knowledge



Round table meetings



International connections



Conferences and meetings organised elsewhere



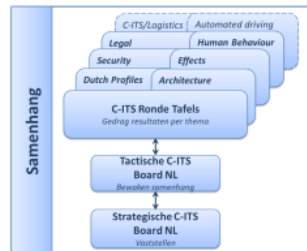
Make knowledge available and share it



Give advice in Smart Mobility projects



National Human Behaviour agreements at managerial level



Manage development based on joint Knowledge agenda



Does your organisation offer travel information services?

How do you safeguard road safety in the design of your travel information service?

Smartphone on or off?

- Human factor guidelines for the design of safe in-car traffic information services [\(link\)](#)



Human Behaviour in road works warning

Cooperative
ITS Corridor
Joint deployment



Who wants to participate in the development
of a Human Behaviour profile for
road works warning?

Overview of international associations

AAA-foundation for traffic Safety

Automotive User Interface

AUVSI

Car Connectivity Consortium

CEDR

C-ITS Deployment Platform

ECTRI

ERTICO ITS Europe

ERTRAC

ETSI

FIA

FISITA

HF auto

I-Mobility Support en Forum

Intertraffic

NHTSA

SAE International

TISA

Transportation Research Board

National Knowledge Agenda

Human Behaviour & Smart Mobility

- Traffic safety
 - Prioritisation information
 - Automation
- Minimal required information for drivers
- Behavioural adaptation: short and long term effects
- System acceptance
- Inter- and intra personal differences regarding information transfer
- Interaction with non-users of in-car systems
- Effects of transition of control
- (Loss of) driving skills and automation
- Interaction with vulnerable road users

Key publications on automated driving ([link](#))

Key publications on automated driving



Automated Driving Roadmap (ERTRAC): This document provides an overview on the current status for Automated Driving technologies with regard to implementation in Europe. The ERTRAC roadmap is based on available documents for automated driving. The overall objective is to identify challenges for implementation of higher levels of automated driving functions. A lot of work has been done on this topic by various stakeholders and multi-stakeholders platforms (e.g. iMobility Forum, EUCAR, CLEPA, ERTICO, EPOSS) and in European research projects. Therefore, it is essential to avoid any duplication of activities and concentrate on the missing items, concerns and topics for future implementation.



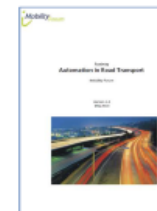
Verslag Kennisagenda Automatisch Rijden (RWS): Door RWS is een werkbijeenkomst georganiseerd om te bespreken wat we in Nederland inmiddels al weten en wat we nog willen weten om automatisch rijden mogelijk te maken op de openbare weg en wat op de korte termijn voor de testperiode nodig is (en wat we in die periode moeten/willen leren). Op 14 april 2015 waren daartoe 125 deelnemers van overheden, bedrijfsleven en kennisinstellingen bij elkaar in een werkbijeenkomst bij Connekt in Delft. De uitkomst van deze bijeenkomst is opgenomen in deze notitie die een aanzet is voor de kennisagenda voor automatisch rijden in Nederland.



Human Factors Evaluation of Level 2 and Level 3 automated driving concepts (NTSHA): Within the context of automation levels 2 and 3, this report documents the proceedings from a literature review of key human factors studies that was performed related to automated vehicle operations. This document expands and updates the results from a prior literature review that was performed for the US DOT. Studies both directly addressing automated driving, and those relevant to automated driving concepts have been included. Additionally, documents beyond the academic literature, such as articles, summaries, and presentations from original equipment manufacturers and suppliers, have been researched. Information from both United States and International projects and researchers is included. This document also identifies automated-driving relevant databases in support of future research efforts.



European Roadmap Smart Systems for Automated Driving (EPOSS): This roadmap is based on surveys and consultations among major European automotive manufacturers and suppliers. Starting from an analysis of goals and challenges towards the introduction of auto-mated driving (AD) and a description of the state-of-the-art technologies, technology roadmaps that provide information about content and timescales of actions in Research and Innovation (R&I) on technology and in framework conditions, are presented. These roadmaps are organized along mile-stones for implementation of highly automated driving. The text contains names of projects, initiatives and mentions trademarks or manufacturer's names. This document shall allow private and public stakeholders, particularly the European Commission and Member States authorities to determine what actions have to be taken when and for what reason. Besides, this document is meant as a contribution of the smart systems community to a broader strategy development process involving e.g. EUCAR, CLEPA, iMobility Forum and EPOSS, under the umbrella of ERTRAC, and the JTI ECSEL as well as the EGVI PPP.



Automation in Road Transport (iMobility): The Working Group was created under the iMobility Forum after the successful workshop organized by the European Commission, DG INFSO in October 2011. This workshop commenced the three SMART studies, executed in 2011 for the European Commission, DG INFSO specifically focusing on automation, the future of Internet and the connected car and during the workshop a clear need was identified to further discuss and guide the research, development and deployment of automation for road traffic and road transport systems.



Chauffeur aan het stuur? (KIM): Zelfrijdende auto's kunnen onze maatschappij ingrijpend veranderen. Of dat gebeurt hangt af van hoeveel de auto daadwerkelijk zelf kan maar ook van wat de consument wil. Worden auto's een tweede luxe huiskamer of blijft een bestuurder noodzakelijk? Ook de deeleconomie is van invloed. Als veel mensen zelfrijdende voertuigen en ritten gaan delen verandert dit het verkeer- en vervoersysteem radicaal.

Dit zijn een aantal conclusies uit het rapport 'Chauffeurs aan het stuur?'. Zelfrijdende voertuigen en het verkeer en vervoersysteem van de toekomst van het Kennisinstituut voor Mobiliteitsbeleid (KIM). In dit rapport worden vier scenario's voor een toekomstig verkeer- en vervoersysteem met zelfrijdende auto's beschreven. Deze beelden verschillen van elkaar op het vlak van techniek en acceptatie (oftewel hoe 'automatisch' wordt de zelfrijdende auto?) en in de mate waarin consumenten willen delen (van autobezit en van ritten).

www.ditcm.eu/hb

Single point of access for open information:

- Notes and reports
- Information
- Practical results
- Approach



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Home > Round Tables > Human Behaviour

Human Behaviour

Human Behaviour

De ITS Ronde tafel Human Behaviour heeft drie doelen:

- Sturen op de gezamenlijke (door)ontwikkeling van het thema Human Behaviour binnen ITS en het gebruik van resultaten uit de Tafel.

News > archive

29 Mar 2016 17:04
DITCM met de Landelijke Ronde tafels op de Intertraffic 2016
Van 5 tot en met 8 april 2016 vindt in de RAI te Amsterdam de Intertraffic plaats. Wij, als DITCM...

09 Mar 2016 15:05
Rijtaakindicatoren voor C-ITS-projecten
Zojuist uitgebracht onder de vlag van DITCM innovations:
Een verkenning naar een eenvoudig toe te...

#SmartTogether

