



PRE-DRIVE



preparation for driving implementation
and evaluation of C2X communication technology

final event

friday, 10 september 2010

Daimler AG
Group Research & Advanced Engineering
Wilhelm-Runge-Straße 11, 89081 Ulm, Germany

introduction

The PRE-DRIVE C2X European project team is glad to invite you to the project's final event on September 10th, 2010 at Daimler Group Research and Advanced Engineering in Ulm.

Since July 2008, PRE-DRIVE C2X worked on an integrated approach to cooperative systems to prepare for a Europe-wide implementation of vehicular communication technology.

PRE-DRIVE C2X has specified and prototyped a common European C2X communication system. Together with COMeSafety it transferred the common European architecture description into a mutually agreed specification. Based on this specification, a system prototype

was realised and validated, which is now ready to be used in field operational trials to assess the impacts of cooperative driving systems.

PRE-DRIVE C2X has analysed all use cases realised by the various known projects in the area of cooperative systems worldwide for their suitability for Europe-wide deployment. The most promising use cases in the areas of road safety, traffic efficiency, infotainment, and business and deployment were set up for live demonstrations.

They can be experienced at the event in real traffic scenarios in a number of demonstration vehicles of different brands equipped with the prototype system.

In addition, PRE-DRIVE C2X has developed the necessary tools and methods for evaluating cooperative systems in field operational trials. Those methods and tools will be presented together with the results of their initial application to the PRE-DRIVE C2X use cases.

We are very happy to welcome you in Ulm to discuss the PRE-DRIVE C2X results and the next steps towards cooperative mobility.

Best regards,

Matthias Schulze

PRE-DRIVE C2X coordinator





morning session I

8:30	Registration and coffee	
8:45	Welcome	Matthias Schulze, Daimler
9:00	Cooperative systems perspectives: the European Commission viewpoint	Wolfgang Höfs, European Commission
9:15	PRE-DRIVE C2X and the EUCAR activities in Integrated Safety	Alessandro Coda, EUCAR
9:30	PRE-DRIVE C2X project overview and future perspectives	Matthias Schulze, Daimler
9:45	Architecture & standards	
	Collaboration with COMeSafety to define a common European ITS architecture	Timo Kosch, BMW
	PRE-DRIVE C2X contributions to common European ITS standards	Andreas Festag, NEC
10:15	Coffee break	



morning session II

10:30 Key components for field operational tests
with cooperative systems

Integration of hardware and software:
a cooperative platform

Massimiliano Lenardi, HITACHI

Test management tools and test bench

Ilja Radusch, Fraunhofer FOKUS

Vehicle-to-business communication

Markus Miche, SAP

Test site selection process and results

Joachim Dehn, Renesas

12:00 Simulation tools in PRE-DRIVE C2X

The integrated simulation tool set and
traffic simulation tools

Thomas Benz, PTV

Communication models in simulated
traffic systems

Hannes Hartenstein, Karlsruhe Institute of Technology

Environmental modelling to establish the
impact of cooperative systems on emissions

Stefan Hausberger, Graz University of Technology

13:00 Lunch break and interactive poster session



afternoon session

- | | | |
|--------------|---|----------------------------------|
| 14:00 | Deployment perspectives | |
| | Socio economic impact of cooperative systems | Wolfgang Schulz, IERC |
| | Stakeholders' awareness and deployment perspectives | Luisa Andreone, CRF |
| | Business economic analysis and viable business models | Nadja Rappold, facit PbS |
| 14:45 | Introduction to real life driving demonstrations and simulations at traffic level | Manuel Schoch, Daimler |
| 15:00 | PRE-DRIVE C2X vehicle demonstrations | please see next page for details |
| | PRE-DRIVE C2X simulations exhibition | |
| 17:00 | End | |

use cases

The following applications for vehicle communication are shown.

Road works warning A road works cone and a communication box are placed aside a road work. The driver is notified of the road work ahead.

Car breakdown warning A vehicle with communication unit stands beneath the road having its flashers on. Oncoming vehicles are warned about a vehicle.

Approaching emergency vehicle A look-alike emergency vehicle is communicating its position and direction. Neighbouroured vehicles receive a warning.

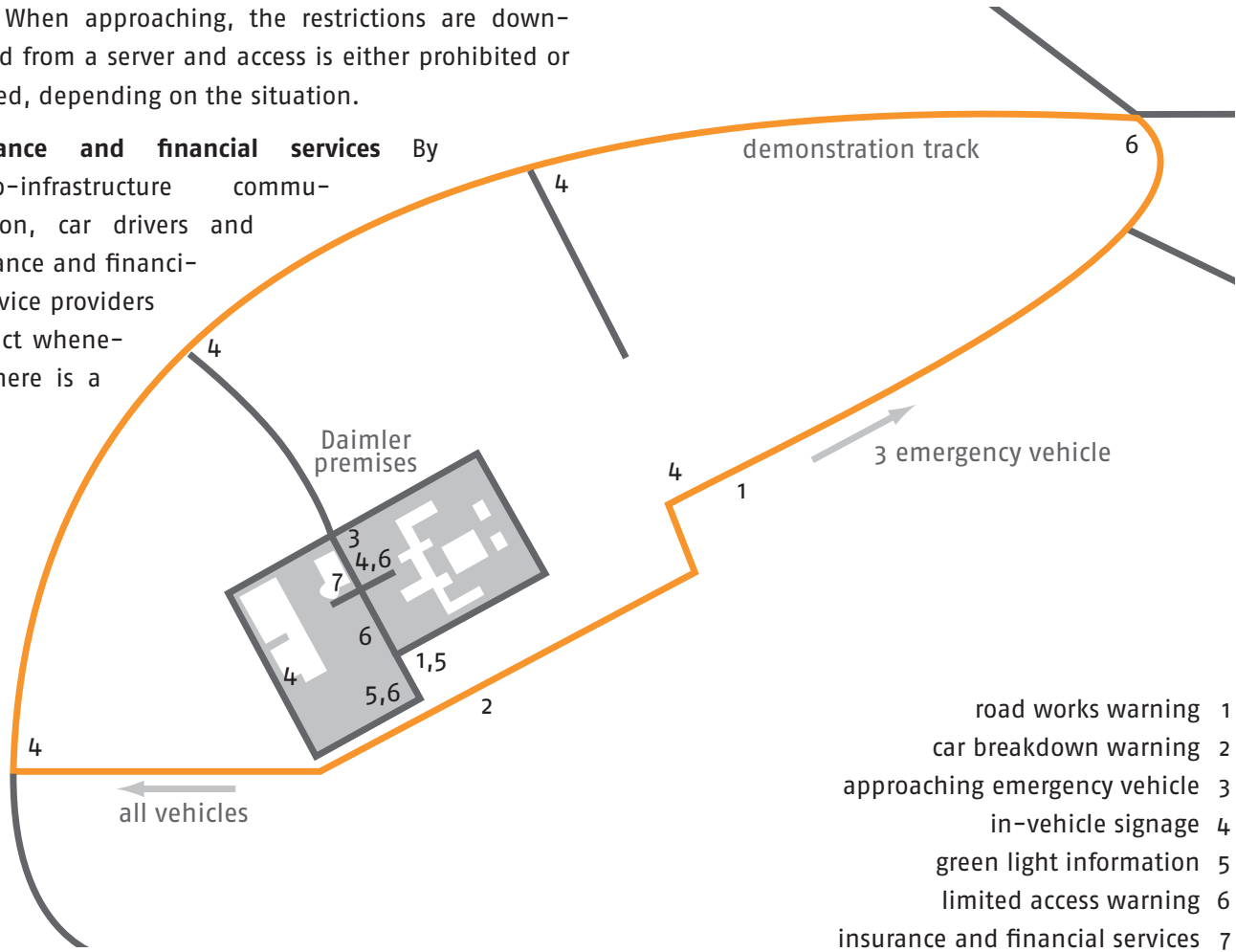
In-vehicle signage including regulatory speed limit function Road Side Units send messages to approaching vehicles. The in-vehicle system checks the relevance of the vehicles driving path and displays the traffic sign in the vehicle. The driver is warned by displaying the overspeeded speed limit sign and an audible warning signal.

Green light information for optimized speed advisory Traffic lights communicate their status (phase and timing) to approaching vehicles.

Limited access warning This application receives information on limited access areas from a local road site

unit. When approaching, the restrictions are downloaded from a server and access is either prohibited or granted, depending on the situation.

Insurance and financial services By car-to-infrastructure communication, car drivers and insurance and financial service providers interact whenever there is a need.



location

address

Daimler AG
Group Research & Advanced Engineering
Wilhelm-Runge-Straße 11
89081 Ulm, Germany

by car

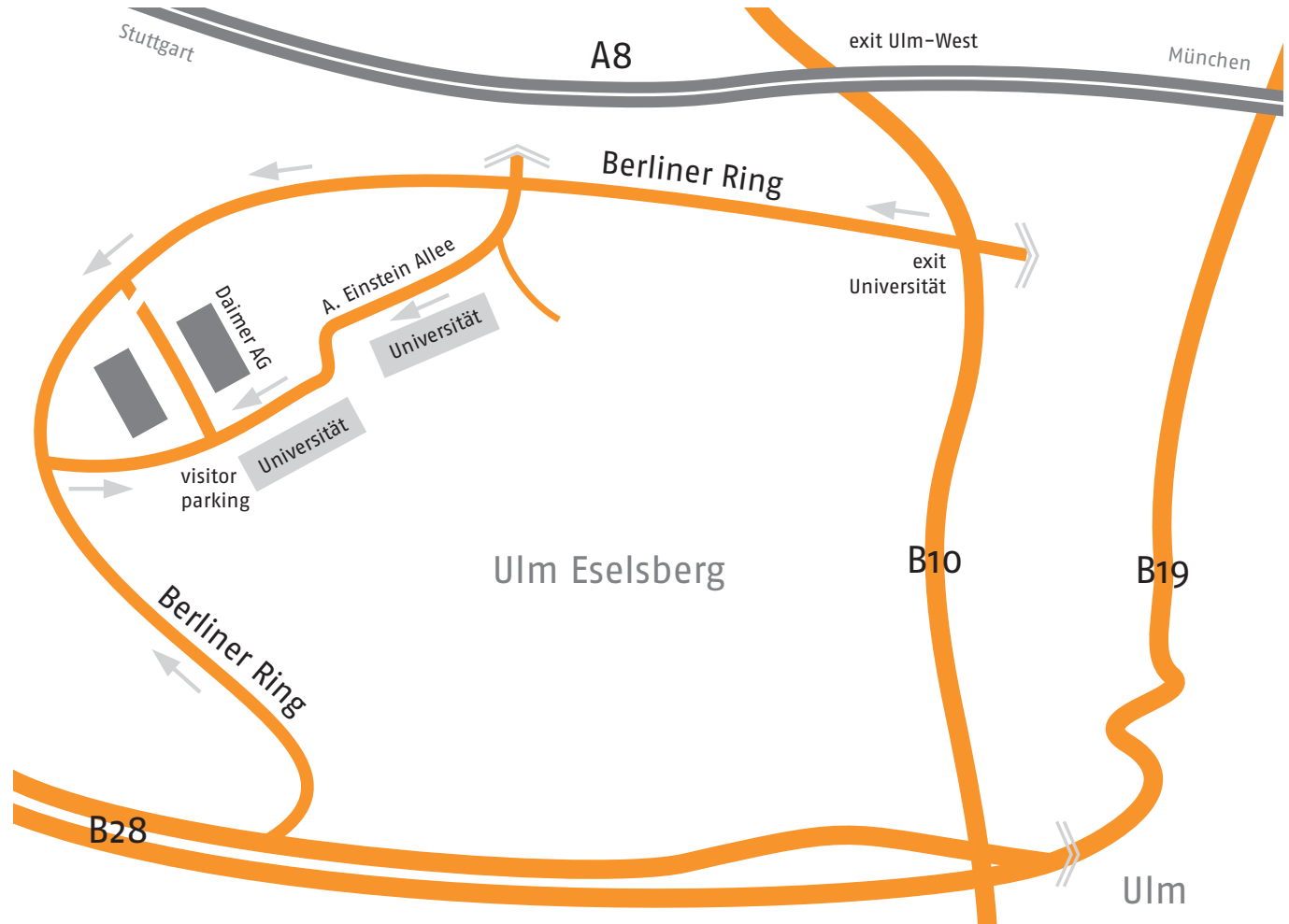
motorway A8, exit Ulm West
highway B10, exit Universität
Wilhelm-Runge-Straße 11

by airplane

airport Stuttgart
underground (S-Bahn) to Ulm (~2 h)
airport Munich
underground (S-Bahn) to Ulm (~2.5 h)

by public transport

Ulm central station
bus line 3 or 5
direction Wissenschaftsstadt
bus stop Wilhelm-Runge-Straße (~20 min.)



hotel recommendations

Hotel Maritim

Basteistraße 4, 89073 Ulm

tel +49 731 923 0

<http://www.maritim.de>

single room € 116 *

Hotel Römervilla

Parkstraße 1, 89231 Neu-Ulm

tel +49 731 80 00 4 0

<http://www.roemer-villa.de/>

single room from € 74 *

Hotel Schiefes Haus

Schwörhausgasse 6, 89073 Ulm

tel +49 731 96793 0

<http://www.hotelschiefeshausulm.de/>

single room from € 125

Hotel Mövenpick

Silcherstraße 40, 889231 Neu-Ulm

tel +49 731 80110

<http://www.moevenpick-ulm.com/>

single room from € 96 to € 162

Orange Hotel

Dieselstraße 4, 89231 Neu-Ulm

tel +49 731 37 84 65 70

<http://www.orange-hotel.de>

single room € 59

Intercity Hotel

Bahnhofsplatz 1, 89073 Ulm

tel +49 731 9655 0

<http://www.ulm.intercityhotel.de/>

single room from € 70 to € 157

Neuthor Hotel

Neuer Graben 17, 89073 Ulm

tel +49 731 9752790

<http://www.hotel-neuthor.de/>

single room from € 75 to € 88

Akzenthotel Roter Löwe

Ulmer Gasse 8, 89073 Ulm

tel +49 731 140890

<http://www.hotel-roter-loewe.de/>

single room from € 90

Hotel Ulmer Spatz

Münsterplatz 27, 89073 Ulm

tel +49 731 68081

<http://www.hotel-ulmer-spatz.com/>

single room from € 64 to € 75

Hotel Ibis

Neuthorstraße 12, 89073 Ulm

tel +49 731 9647 0

<http://www.ibishotel.com/>

single room € 77

Hotel Engel

Loherstraße 35, 89081 Ulm/Lehr

tel +49 731 140400

<http://www.hotel-engel-ulm.de/>

Single room from € 58 to € 69

* Special conditions for Daimler. Please mention your Daimler guest status when booking the hotel.

Automotive OEMs

Daimler AG

Audi AG

BMW Forschung und Technik GmbH

Centro Ricerche Fiat S.C.p.A.

Adam Opel GmbH

Volkswagen Aktiengesellschaft

Volvo Technology AB

Software developers

SAP AG

Electronics and supplier industry

Delphi Delco Electronics Europe GmbH

Hitachi Europe SAS

NEC Europe Ltd.

Renesas Technology Europe GmbH

Traffic engineers

PTV Planung Transport Verkehr AG

Universities and research institutes

Deutsches Zentrum für Luft- und Raumfahrt e.V.

Fraunhofer-Gesellschaft zur Förderung der
angewandten Forschung e.V.

Interuniversitair Micro-Electronica Centrum vzw

Nederlandse Organisatie voor
toegepastnatuurwetenschappelijk onderzoek TNO

Technische Universität Graz

Karlsruhe Institute of Technology

University of Surrey

European Center for Information and Communication
Technologies EICT GmbH

Facit Research GmbH & Co. KG

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European Commission
Information Society and Media

