VDI

International VDI Conference 2017

Digital Infrastructure & Automotive Mobility

July 5–6, 2017, Berlin, Germany

- The automotive Industry, Digitization and the Opportunities for a new Business
- The automotive Requirements on Connectivity
- Status Quo of digital Infrastructure Expansion and Standardization
- Short and long range Communication: The Options of 5G, LTE and IEEE802.11p
- Backend Communication: The Challenges for IT-Security and Data Processing

+ International VDI Workshop
+ 5 World Cafés
+ Panel Discussion

Meet experts from the following companies:

Audi Electronics Venture GmbH · Audi · bixruptor · EURECOM · BT

EBS Universität für Wirtschaft und Recht · BESTMILE THE MISSING LINK · ERICSSON · INTERDIGITAL EUROPE · NOKIA

T··Systems· · TELENAV® · VOLKSWAGEN AKTIENGESELLSCHAFT · VOLVO

ConCarExpo 2017 — Includes free entrance to the ConCarExpo 2017!

An event organized by VDI Wissensforum GmbH
www.vdi-international.com/digitalinfrastructure

Who shall attend the International Conference Digital Infrastructure & Automotive Mobility?

The conference addresses a target audience made up of international experts with an automotive, IT or telecommunication background. In particular, it is aimed at those experts, project and department heads as well as representatives from medium-tier and senior management who are involved in the following fields of work:

Business Development – Product Management – Marketing – Electronics – Software Development – Driver Information Systems – Driver Assistance Systems – Automated Driving – Connectivity – Communications Engineering – IT-Architecture – IT-Security

Explore the connected automotive Ecosystem

The **"Digital Infrastructure & Automotive Mobility"** is part of the ConCarExpo – The leading International Trade Fair for Connected Car & Mobility Solutions in Europe. The ConCarExpo unites four technical conferences, a huge range of international exhibitors, innovative start-up pitches and excellent networking opportunities in the connected automotive ecosystem.

CON CAR EXPO 2017

Visit four parallel running conferences with one ticket

| 1st International VDI Conference **Digital Infrastructure & Automotive Mobility** | 4th International VDI Conference **HMI & Connectivity** | 4th International VDI Conference **Automated Driving** | 3rd International VDI Conference **IT Security for Vehicles** |

Your benefits:

4 for 1
Four high class technical international conferences with one ticket

+ 100 International exhibitors at ConCarExpo

+ 20% International OEM Delegates

+ 100 Speeches at the four conferences and on the exhibition floor

Car Pavillion and User Experiences

Over 500 Attendees at the conferences and **1500 Trade Fair Visitors**

16 Start up-Pitches

Networking Hotspots Huge evening reception, roundtables, workshops, world cafés

08:30   Registration & welcome coffee

09:30 Opening Speech ConCarExpo at the ConCar Forum Stage:
Autonomous Driving, Digital Infrastructure & Mobility Solutions as Key Drivers for the Automotive Industry
Johannes Jungwirth, Chief Digital Officer, Volkswagen AG, Germany

10:00 Chair's welcome and opening address
Andreas Mai, Angel Investor, Board Member, Advisor, Michigan, USA

Changed Consumer Behavior – New Business?
The Chances for the automotive Industry in a connected World

10:15 The OEM Future Mobility Dilemma: More Opportunities – Less Profit?
- Positioning strategies of OEMs
- SECA – Shared, Electric, Connected and Autonomous
- Digital transformation impact on OEMs
- Data driven everything
- How to earn money in future mobility
- OEMs – Where change is crucial

Dr. Bernd G. Abraham, Chief Executive Officer, bizruptor corporation (a company of erlkönig Holding GmbH), USA; co-authors: Sebastian Niehoff, Business Unit Director, erlkönig GmbH, Florian Holste, Managing Director, Autonatic GmbH, all: Germany

10:45 From Nightmares to good Drive's sleep – Understanding the autonomous Customer
- Asleep in your car: Nightmare or picture-perfect dream?
- The marketing perspective on autonomous driving
- Autonomous customer profiles: Whom to address if there is no driver?
- Managerial implications and recommendations: Which lullabies to sing?

Katrin Merfeld M.Sc., Research Assistant, Marketing, EBS University for Business and Law, Germany

11:15 Urban Mobility redefined – Introducing the new Business Models?
- Shift from vehicle ownership to vehicle usage
- Sizing the potential uptake of new mobility services- Car sharing, ride sharing, ride hailing, smart parking
- OEMs moving toward CAAS – Car as a service
- Changing role of public sector in mobility
- Evolution toward mobility as a service – Technology underpinning the growth of integrated mobility

Shwetha Surender MBA, Industry Principle, Frost & Sullivan, United Kingdom

11:45   ☕ Networking & coffee break

Technical Requirements of OEM towards Connectivity

12:15 Digitization of the automotive Branch: The connected Car
- The vehicle is a mobile data pool
- Car-to-x enables swarm intelligence - The sharing and use of complex information within the Audi fleet
- Audi is networking vehicles with the infrastructure for the smart city of tomorrow

Gerhard Stanzl, Head of Department, Audi Electronics Venture GmbH, Germany

12:45 V2X Opportunities and Challenges
- Various V2X connectivity systems available
- Essential V2X use cases: Security and convenience
- Reliable and fast interoperability: Key to success

Dipl.-Ing. Martin Albrink, Sales Manager, 7layers GmbH, Germany

13:15   🍽 Lunch & visit of the accompanying trade fair ConCarExpo

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Vehicle-specific Features using Connectivity

15:00 Connected automated Driving
- How inter-vehicle connectivity supports automated driving
- What is cooperative driving?
- Research projects related to cooperative driving

Hendrik-Jörn Günther M.Sc., Researcher, Volkswagen AG, Germany

15:30 Accurate HD Map or Smart Map? What it really takes to power connected Car and autonomous Experiences
- The map as a key enabler for a connected car and driver experience
- Using sensors to build the map of the future
- The alternative: Crowdsourced mapmaking
- Leveraging intelligent services to enable predictive assistance and safety

Philipp Kandal, VP Automotive Engineering, Telenav Inc., USA

16:00   ☕ Networking & coffee break

16:30 World Cafés

1. An automated operated vehicle needs to be linked to the digital infrastructure – or maybe not?
2. Are the established C-to-X Communication standards still the correct standards?
3. Data processing in the vehicle or backend? Where will the intelligence be embedded?
4. Hen-egg situation: which players and stakeholders should be assigned with which tasks?
5. Refinancing infrastructure: Which models are robust/reliable?

Organizational Information: All conference attendees find two world café table numbers on their conference ticket: Please only visit the world café tables with your personal numbers so that all tables will be frequented equally.

17:45 Evening Keynote on the ConCar Forum Stage:

Volvo Cars development of Autonomous Vehicles, in cooperation with Uber and Zenuity
Kent Melin, M.Sc., Senior Technical Leader, Electrical System Design, Volvo Car Group, Sweden

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18:30 End of conference day one

Get-together with Participants of all parallel Conferences
At the end of the first conference day we kindly invite you to use the relaxed and informal atmosphere for in-depth conversations with other participants and speakers.

Digital Infrastructure – Networks, Technologies, Standards

09:15 Establishment of Infrastructure in Europe
- Challenges posed by the establishment of a single European approach
- Impact on the organisation of European traffic
- Meaning of Car-to-X
- Exerting influence via testing regulations
lecturer to be announced

09:45 Telecommunication Industry: Opportunities presented by digital Infrastructure
- Requirements that networks have to fulfill for automotive today and in the future – Quality of service/ reliability, low latency, velocity, bandwidth, …
- Scope of required infrastructure establishment to ensure respective level for automotive – 4G, 5G and WiFi
- Status and roadmap towards 5G - Interoperable, globally applicable standards
- What we need to do
Jürgen Daunis, Head of Division, Business Organization, Customer Unit Industry & Society, Ericsson GmbH, Germany

10:15 Standards in the vehicular digital Communications Ecosystem
- What standards are available?
- Where current standards are and where they are going?
- Uncertainty and management of standards
- The way forward: Problems, solutions and examples
Dr. Rafael Cepeda, Senior Manager, IoT and Smart Cities Lead for InterDigital Europe, International Innovation Labs, InterDigital Europe Ltd, United Kingdom

10:45 Networking & coffee break

Short and long Distance and hybrid Communication

11:30 Paving the Way to intelligent Transportation
- Cellular communication technologies
- End-to-end solution development
- Cooperation and ecosystem of partners
- Autonomous vehicles
- Mobility as a service
Dr. Thierry Klein, Head of Innovation Management for Verticals, Nokia Innovation Steering, USA

**12:00 Telco Services for connected and automated Driving –
On the way to 5G**

- Network requirements of connected and automated driving
- Quality of service, throughput and low latency services
- Peer to peer communication with LTE-V2X
- Precise positioning as a service

Prof. Dr.-Ing. Johannes Springer, VP Technology, 5G Automotive Program, Business Unit Connected Mobility, T-Systems International, Germany

12:30 Challenges and Opportunities of WiFi-based V2X Communications

- ITS-G5/IEEE 802.11p: Providing Safety-critical V2X Communication Today!
- Next generation IEEE 802.11px: Cutting Edge V2X Technology on it Way …
- Future Automated Transportation - Challenges and Opportunities of Redundant V2X Communications
- Cellular-V2X and WiFi-V2X – Friends rather than Foes

Dr. ès Sc. (PhD) Jérome Härri, Assistant Professor, Communication Systems, EURECOM, France

13:00 Lunch & visit of the accompanying trade fair ConCarExpo

14:45 Panel Discussion: Which digital Communication Technologies should be rolled out at the same Time?

Panelists:
Dr. Thierry Klein, Nokia Innovation Steering, USA
Prof. Dr.-Ing. Johannes Springer, T-Systems International, Germany
Dr. Teodor Buburuzan, Volkswagen AG, Germany
Dr. Jérome Härri, EURECOM, France

Panel Discussion

Backend Communication

15:15 Security is the Key to unleashing the real Power of the connected autonomous Vehicle

- Connected, but unsecure: Today's connecting technologies in cars
- The benefits of connected autonomous cars as an extensive data pool
- Solutions for IT-security

Martin Hunt, Automotive Global Industry Practice, BT Germany GmbH & Co.OHG, Germany

15:45 Introducing BestMile Hermes, the world's first 2-way communication protocol that connects autonomous vehicles to the cloud
Luc Texier, Head of Business Development, BestMile Switzerland, Lausanne, Switzerland

16:15 Farewell coffee in the accompanying trade fair ConCarExpo

17:00 End of conference

International VDI Workshop

Trustable Connected Vehicles – Measureable Security and Privacy for Smart Cars

Workshop Chair:
Dr. Werner Rom, Head of Department, VIRTUAL VEHICLE, Das virtuelle Fahrzeug Forschungs-GmbH, Graz, Austria

Date and venue:
July 4, 2017
Estrel Berlin, Germany

Time:
10:00 – 17:00

Introduction
- System security analysis: Attack-centric vs. system centric approaches
- Measureable security
- DEWI security metrics based on SHIELD multi-metrics
- DEWI security metric supporting SAE-J3061

Case study: Security concept enabling efficient and trustworthy wireless SW updates for smart cars
- Applying the DEWI security metrics: Defining security goals and performing a structured system analysis
- Extracting secure system configurations and security requirements
- Defining the overall security concept

Security and privacy for smart cars
- State of the Art (technical, legal, user perspective)
- Future developments: Upcoming challenges and threats

Measureable security and privacy for smart cars
- Advantages, barriers and open issues
- Approaches, frameworks and tools
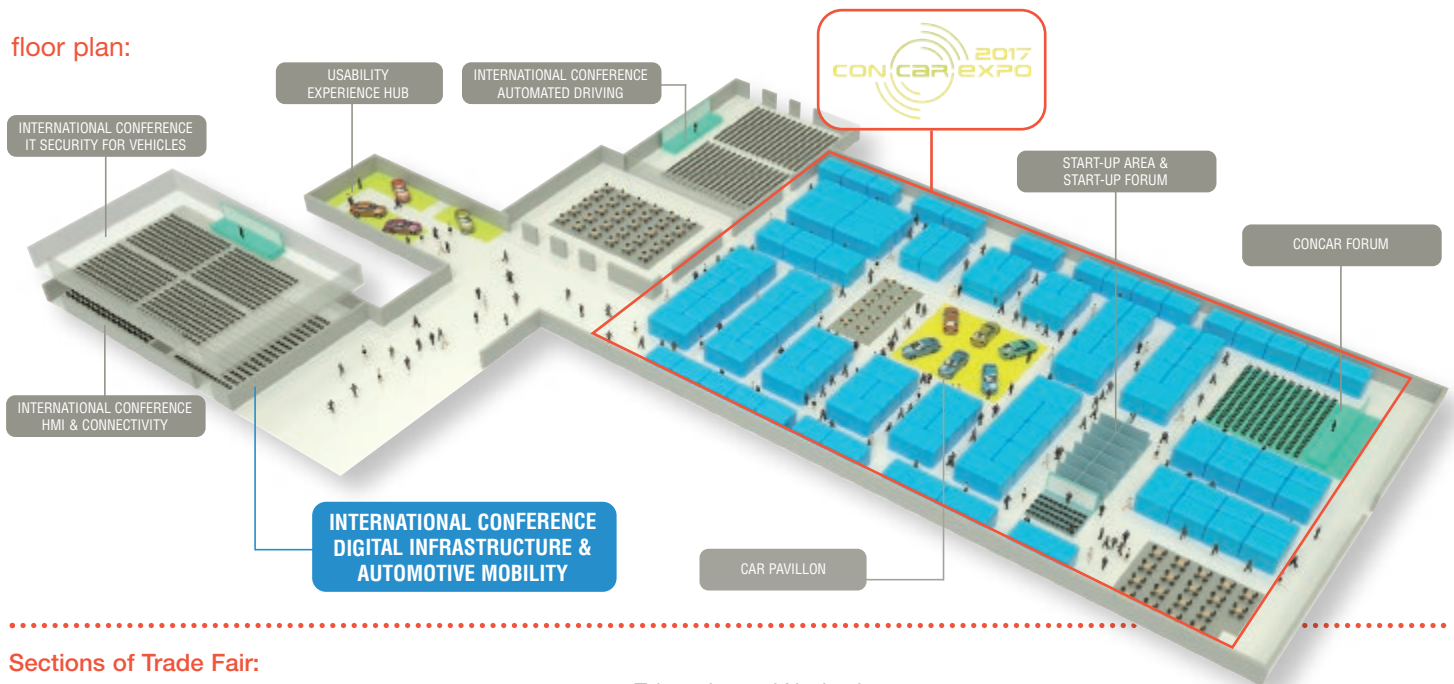- User-convenient security and privacy measures

Trustability as a key enabler for IoT
- Trust and user acceptance: Creating and enhancing trust
- Trust assessment and trust indicators

Digital Infrastructure & Automotive Mobility
is part of the ConCarExpo 2017

floor plan:

INTERNATIONAL CONFERENCE IT SECURITY FOR VEHICLES

USABILITY EXPERIENCE HUB

INTERNATIONAL CONFERENCE AUTOMATED DRIVING

CON CAR EXPO 2017

START-UP AREA & START-UP FORUM

CONCAR FORUM

INTERNATIONAL CONFERENCE HMI & CONNECTIVITY

INTERNATIONAL CONFERENCE DIGITAL INFRASTRUCTURE & AUTOMOTIVE MOBILITY

CAR PAVILLON

Sections of Trade Fair:

- Automated Driving and Driver Assistance Systems
- Electronic Components, Monitoring and Control Technology, Sensor Technology
- Software and Networked Systems, Infotainment
- Telematics and Navigation
- HMI, Operation and Display
- Diagnosis, Test, Integration, After-sales-service
- Traffic Engineering, Infrastructure, Automotive Mobility

91% of visitors rate ConCarExpo 2016 as good to excellent

78% rate the quality of visitors as excellent

93% of conferences delegates rate the conference as good to excellent

82% of exhibitors rate the marketing platform ConCarExpo as very good

If you want to meet with and reach out to the first-rate experts attending the 4 International VDI Conferences and the International trade fair ConCarExpo and to powerfully present your products, become an exhibitor at ConCarExpo! For further information please contact our ConCarExpo-Team:

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Visit our website for more information: **www.concarexpo.com**

Registration

Digital Infrastructure & Automotive Mobility

VDI

VDI Wissensforum GmbH | VDI-Platz 1 | 40468 Düsseldorf | Germany
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ConCarExpo 2017
Includes free entrance to the ConCarExpo 2017!

Please choose your price category

Participation Fee + VAT

☐ **VDI Conference 05.–06.07.2017**
(01KO152017) **€ 1,690**

☐ **Workshop 04.07.2017**
(01ST180001) **€ 850**

☐ **Package Price**
(conference and workshop) **€ 2,280**

Personal VDI members + VAT

☐ **VDI Conference 05.–06.07.2017**
(01KO152017) **€ 1,590**

☐ **Workshop 04.07.2017**
(01ST180001) **€ 800**

☐ **Package Price**
(conference and workshop) **€ 2,130**

☐ I am interested in sponsoring and/or exhibition

VDI membership no.

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