










CON CAR EXPO 2017

INTERNATIONAL TRADE FAIR FOR CONNECTED CAR & MOBILITY SOLUTIONS

Berlin, July 5–6, 2017

Highlights

-  **Autonomous test drives**
Get on the bus shuttle OLLI and experience autonomous driving in an outside demonstration.
-  **Usability Experience (UX) Hub**
Learn about the differences between the latest car systems in today's market.
-  **24 hour Hackathon**
Watch 10 IT-developer teams working on new solutions for the challenges of the future mobility in an 24 hour competition.
-  **Test: New Vehicle concepts for urban short-distance rides**
Try out new vehicle concepts as a solution for the "First & Last Mile" problem.
-  **ConCarForum with Panel Discussion "Mobility"**
Listen to a wide-ranging program of expert lectures in the exhibition area free of charge.
-  **Start-up Area with Start-up Pitch**
Meet young & innovative companies presenting their products and services for connected vehicles and mobility of the future. Join the Start-up Pitch with the best solution honored on the second show day.
-  **Start-up Forum**
Get to know the Start-ups' expertise in lectures.
-  **Car-Pavillion**
Experience the latest processings and research results in the field of connected car.
-  **4 international conferences**
Upgrade your trade fair ticket to also attend the accompanying conferences.

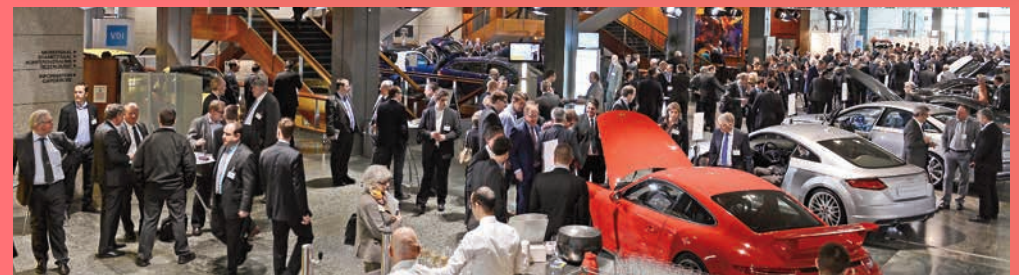
Find out all the details on www.concarexpo.com



Plan your visit in advance to get the most out of ConCarExpo:

Make use of this full-service app for your visit of the trade fair **ConCarExpo**. The app allows you to conveniently plan your stay in Berlin and offers you extensive event networking options.

Scan the QR-Code and download the ConCarExpo App now!



Exhibitor list

3D Mapping Solutions GmbH • AllGo Embedded Systems Pvt. Ltd. • Altia Inc. • Analog Devices GmbH • Aplicom Oy • Arccore GmbH • ATC-Aldenhoven Testing Center of RWTH Aachen Uni • AVL List GmbH • BeMyApp SAS • b-plus GmbH • CarMedialab GmbH • CMORE Automotive GmbH • DIBOTICS • DriveNow GmbH & Co. KG • Drust • dSpace GmbH • ESCRYPT GmbH - Embedded Security • ESG Elektroniksystem- und Logistik GmbH • ETAS GmbH • Finpro Oy • Foreca Ltd • froglogic GmbH • Futurice Oy • Geospin GmbH • GHM Mobile Development GmbH-Free2Move • Graphmasters GmbH • Green Hills Software GmbH • Hamamatsu Photonics Deutschland GmbH • Ibeo Automotive Systems GmbH • ifak Institut für Automation und Kommunikation e.V. Magdeburg • infoware GmbH • inno2grid GmbH • In-tech GmbH • ITK Engineering GmbH • K2L GmbH & Co. KG • Korulab • Link Motion Ltd. • Live Reply GmbH • Local Motors Berlin GmbH • M3 Systems • Mediamobile S.A. • Microchip Technology Germany GmbH • Microsoft Deutschland GmbH • Mobiag, Lda • MTA S.p.A • NectOne UG • NNG LLC • Noffz ComputerTechnik GmbH • NORDSYS GmbH • OpenSynergy GmbH • Parkbob GmbH • RideCell Inc. • Rogers Corporation • RWTH Aachen University • RYDIES-urban micro mobility • S.E.A. Datentechnik GmbH • SBD Secured By Design Ltd • Skydel Solutions Inc. • Spirent Communications plc • Sysgo AG • Telenav GmbH • Third Space Auto Ltd • Toposens GmbH • Traffic Technology Services Europe GmbH • Trive.me • Tuxera Inc. • Ubeeqo GmbH • Urban Software Institute GmbH • Valmet Automotive Inc. • Vector Informatik GmbH • xdi360 GmbH • Xenomatix N. V. • and many more

Interested in exhibiting? If you are interested to present your company at ConCarExpo 2017 please contact Mariya.Petkova@concarexpo.com

Venue

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Opening hours

Wednesday, July 05, 2017
9 a.m. - 6 p.m.

Thursday, July 06, 2017
9 a.m. - 5 p.m.

Book your ticket now at www.concarexpo.com

Single day ticket 25 Euro
Two day ticket 40 Euro

VDI- and VDE-Members can visit ConCarExpo for free.
Please find your access code in your personal login for members only.

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Expanding horizons

Interconnectivity as a key competence in modern transport systems

The car as a digital and fully networked living space, mobile office and travelling home, a place for working, consuming and relaxing: while this still sounds very futuristic, it could soon become reality. "The car as we know it is almost history," explains Dr. Volkmar Denner, Chairman of the Board at Robert Bosch GmbH. "Only from 2017 to 2022, the global market for networked mobility is expected to grow annually by almost 25 percent." For example, the introduction of the E-call automatic emergency call system that will be implemented in all new vehicles in April 2018 will come with a mobile phone connection which can also be used for other services.

Connected to the outside world, the car becomes a personal assistant. It allows for booking alternative kinds of transport, looking at departure times, online shopping and watching films as well as mobile working. And that's not all – thanks to the Internet of Things (IoT), the car also autonomously links to other living environments. Arranging service appointments with the workshop? Checking what's in your own fridge? Not a problem.

A new world

Alongside with this, the car communicates with other traffic infrastructure thanks to a mobile phone connection, sensors and plenty of computer-aided intelligence and therefore expands the driver's horizons beyond their own sensory input. External data inputs register potential hazards such as black ice, roadworks or broke down vehicles long before the driver does and factor them into the driving decisions. Predictive driving strategies which turn topographical and infrastructural factors into a smooth and environmentally friendly way of driving are also possible. Last but not least, networking is a prerequisite for vehicles being able to handle ever longer routes in automatic mode.

This will not only demonstrably help to prevent accidents, it will also optimize traffic flow and limit the damaging effects on the environment. Drivers, should they choose so, can be passengers in cars with automated driving functions and turn to the activities set out above. The car could, alongside



Traffic, infrastructure, industry and households will engage in intensive dialogue in the future. ©Schaeffler

the house and the workplace, become the third living environment – with a more comfortable interior in which the focus is less on the driving function and more on the quality of stay.

Technically, networked and automated vehicles are presentable already today. However, this future scenario still needs to be accompanied by legal amendments. In spring 2017, the German government submitted a draft bill which sets out the legal guidelines for the further development of automated driving functions. Other countries are also revising their legal norms and even the Vienna Convention, the internationally accepted framework for the structuring of road traffic, was recently amended.

Intelligence instead of dominance

The appearance of networked automated vehicles is seeing a change in the meaning of the car. The "vehicles with abundant technology and convenience in private ownership" scenario will remain, but it will be supplemented by another model. "The other scenario is robotic taxis for urban areas which allow for convenient transportation without vehicle ownership," according to Miklos Kiss, Head of the Piloted Driving Advance Development Department at Audi.

What resonates in his words is an even greater degree of networking. In order to allow for safe fully automated driving functions – potentially without a steering wheel in the car – on one hand, and in order to address the diverse and clearly differentiated usage requirements of heterogeneous user groups on the other. Since these unmanned taxis will be operated by service providers, they must be compatible with fleet management systems and with services from third party providers. Further, robot taxis would be part of an urban local traffic concept hence closely linked with other means of transport or mobility platforms in order to implement seamless inter-modal transport networks. People will probably use the smartphone as a digital communications centre in this close-knit public transport network – just one more interface with the vehicle.

Starting off in big cities it also implicates tailored drive concepts: if you look at the current access restrictions in Paris, London, Oslo, Beijing and elsewhere, there will probably be no way of getting around electromobility in the future. Additionally, the size of the autonomous people carriers flitting around will shrink so that they correspond better to the urban traffic and spatial conditions. These mobile mega trends will change the vehicle of tomorrow. However, thanks to comprehensive networking, it will remain a central part of the new urban traffic mix.

(Author: Hartmut Hammer)



The vehicle interior could look this serene and clear as a future living and working space. ©Daimler

Turn-key solutions for autonomous driving

We at CMORE Automotive approve the performance and readiness to use of autonomous functions as well as entire systems on the public road.

Our highlights at ConCar Expo are:

- Validation concepts for autonomous driving functions
- State-of-the-art deep learning algorithms for automotive usage
- Smart annotation for Ground Truth Data generation and data enrichment
- Framework for data acquisition, data visualization, automated validation and HIL/SIL simulations
- Comprehensive in-vehicle measurement platform



In addition, we exhibit concepts for vehicle prototype preparation, including reference systems, fleet management and test drive services for data acquisition, standardized tests such as NCAP and NHTSA, and simulation approaches for ADAS.

Visit **CMORE** at their booth No. 31

Finnish know-how

With everything in a car becoming digitalized and connected, the automotive industry is looking for new innovative solutions and technologies, providing the needed edge for tomorrow's vehicles. And this is where Finnish companies and know-how come to play with solid track record in developing innovative software solutions and expertise in delivering global software projects. Finpro, the Finnish trade promotion organization, brings a crew of companies to ConCarExpo with bespoke solutions for the automotive industry. Extensive experience and ecosystem in mobile solutions ensures Finnish providers are the experts that can deliver secure solutions for optimized data usage and customer retention. Not forgetting the ability to leverage application development know-how for delivering in-car smart-phone experience.

Exhibitors are: Apicom • Foreca • Futurice • Korulab • LinkMotion • Nokia • Tuxera • Valmet Automotive

From Vehicle to Software Product

The car goes digital: smartphones, autonomous driving, and alternative drive systems. What challenges is the industry facing, and how do innovative companies help overcome them?

Albert Habermann, Head of the Center of Innovation at in-tech, is confident: "The vehicle of the future is a software product!" Currently a vehicle encompasses more than 100 million lines of code. That is seven times as much as an airliner and more than twice as much as a modern operating system. The amount of software will increase further on the way to autonomous driving.

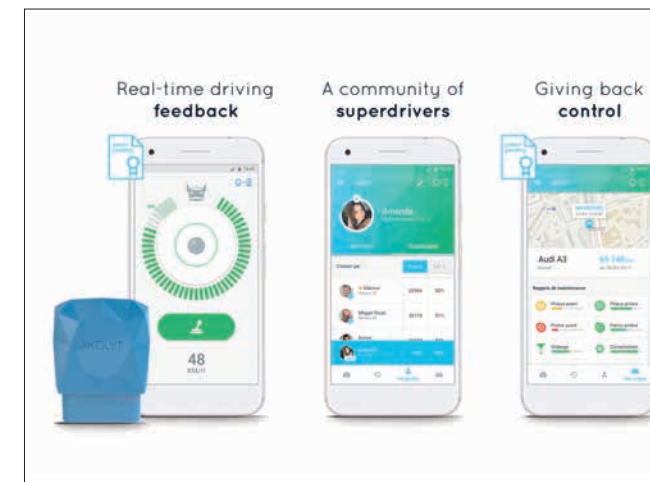
That is why comprehensive software expertise is in even greater demand in automotive engineering than before.

Smart data applications become important in this context as well: The data recordings from conventional test drives can be analyzed using smart data methods. Intelligent new test scenarios for virtual validation can be automatically generated from the data. Vehicle testing keeps getting better and more efficient as a result.

Visit **in-tech** at booth No. 42

Getting drivers used to the Connected Car – one value-added service at a time

In a context where individual mobility needs are constantly increasing and the digital revolution is spreading across all industries, the automobile today is 'disconnected' from the actual world. 66% of consumers complain about their car costs and perceive it as a constraint over which they have lost control over the last years: gas consumption higher than in the TV ads, ecological pressure, confusing electronic engine breakdowns, untrustworthy mechanics, etc. Yet, data available from the sensors already embedded in the car can help solve these problems.



Drust, a French company that develops VAS (value-added services) for drivers has developed an application that helps drivers to decrease fuel consumption and CO₂ emissions via a real-time driving coach. Drust will also be speaking at ConCarExpo 2017.

Visit **Drust** at their booth No. 01.2

We thank our exhibitors for providing us with information on their products and services presented at ConCarExpo 2017

Your benefits:

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

+ 80 International exhibitors at ConCarExpo

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

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

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

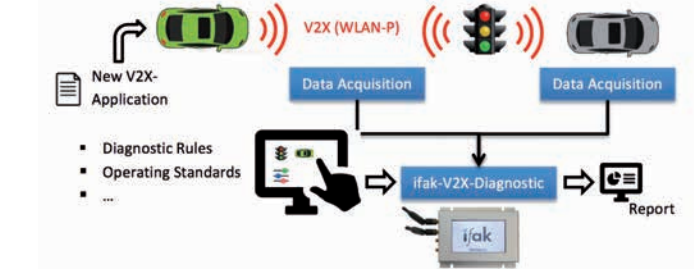
+ 20% International OEM Delegates

Car Pavillion and User Experiences

16 Start up-Pitches

Diagnosis and Monitoring of cooperative, distributed V2X Applications

At the ConCarExpo 2017 ifak shows a V2X diagnostic and monitoring system, consisting of V2X diagnostic engine and (several) V2X diagnostic devices, in order to proof and monitor distributed V2X applications during runtime. Specific user requirements are used and compared with current communication data. Additionally other features (e.g. predictive maintenance) are provided based on the ifak V2X diagnostic system.



Features:

- Universal data acquisition via V2X and/or mobile radio systems, if necessary on different locations
- Intuitive usability for the creation and administration of diagnostic rules
- Simple parameterization of the V2X Diagnostic Engine (involved vehicles, infrastructure, timings ...)
- Overview of the cooperative overall system ("who communicates with whom")
- Automatic, central evaluation of the diagnostic rules, report generation

Meet **ifak** at their booth No. 46

New security solution detects, analyzes, and parries cyber-attacks on vehicles in the field

ESCRYPT has now developed a solution that detects, analyzes, and defends against cyber-attacks. Available starting in 2017, the Intrusion Detection and Prevention Solution (IDPS) for vehicles detects and documents attempted attacks and can automatically forward the data to a cyber security backend for evaluation. There, teams of experts apply the data in conducting forensic analysis of the event, so that they can define and implement appropriate countermeasures – for example, over-the-air security updates. With these methods of detecting and defending against attacks, automotive security is becoming a continuous process that covers prevention (e.g. a firewall), the monitoring, reporting, and analysis of attacks, and the constant rollout of specific countermeasures. Not content with static defensive measures in individual vehicles, IDPS incorporates constantly updated data from the entire vehicle fleet. This means it can immediately provide effective responses to new – and always changing – risks and attack strategies.

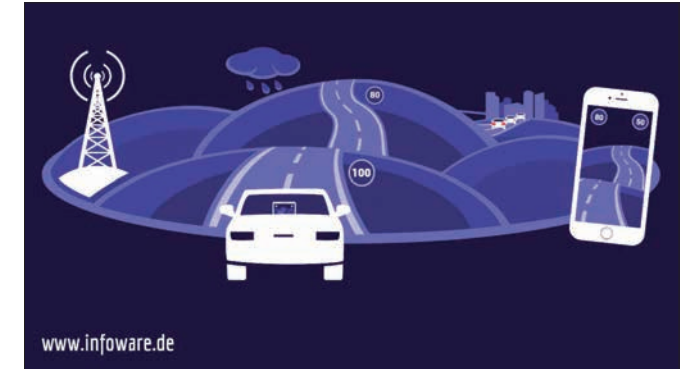
At ConCarExpo 2017, ESCRYPT is presenting a new intrusion detection solution with which automotive manufacturers can detect and defend against cyber-attacks on individual vehicles or entire fleets.

Visit **ESCRYPT** at their booth No. 12

infoware: Driver Assistance Systems in the Connected Car

Who brings the best smartphone connectivity into the car?

infoware, the navigation producer of driver assistance systems and autonomous driving from Bonn/Germany, develops brand-specific solutions to bring apps from the smartphone into the car and to link them with the navigation.



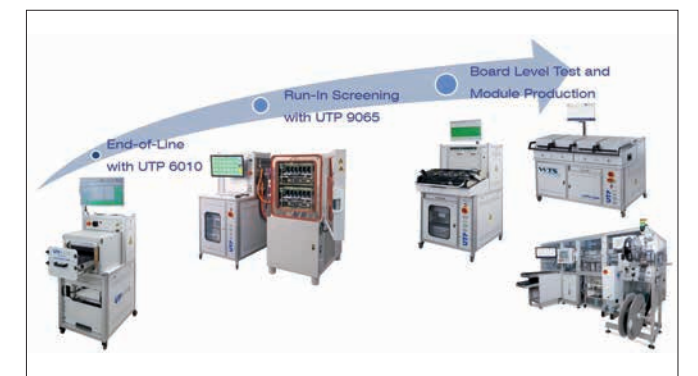
We have already implemented technologies such as Mirror-Link, MySpin, Smart Device Link and OpenCar with full navigation features. Furthermore, with our cloudbased electrical horizon, we offer technologies for autonomous driving. Here again, we place our emphasis on driver assistance and safety.

infoware is looking forward to meeting you at their booth No.10.

Interference Simulation for Autonomous Transportation System Vulnerabilities Analysis

NOFFZ Technologies is the European Partner of Skydel and provides turnkey solutions for testing GNSS, connectivity and cellular technologies up to radar. An ideal extension for the GNSS simulation is the UTP 5050 RF Distribution Center, which can broadcast the signals from a few signal generators to multiple receivers in the lab or in the production.

Additionally, NOFFZ as a National Instruments Platinum Partner can provide scalable RF test systems that ranges from interfaces like NFC, WPC over cellular and connectivity standards via GNSS up to radar. NOFFZ and Skydel test systems are used in Product Validation, System Test and Production.



Visit **NOFFZ** and **Skydel** at their booth No. 29

Side Events

ConCarForum 2017 - Program

Moderation: Guido Reinking, automotive press GmbH (former chief editor automobilwoche)

DAY 1, JULY 5, 2017

09:30 Opening Speech: "Autonomous Driving, Digital Infrastructure & Mobility solutions as Key Drivers for the Automotive Industry"
Johann Jungwirth, Volkswagen AG

10:00 Intelligent Vehicle and Mobility solutions from Finland
Mikko Koskue, Finpro Oy

10:25 Innovations – more than new technologies – a holistic view
Albert Habermann, in-tech GmbH

10:50 "Moral Decisions" During a Dilemma – Soon to Be the Task of the Automobile?
Matthias Haun, ITK Engineering AG

11:15 Connecting, Sharing & Caring
Andrew Nash, Mediamobile S.A.

11:40 Road weather forecasting for Automotive use
Petri Marjava, Foreca Ltd

12:05 Solid State Lidar in Perception: Increasing accuracy and reliability
Michael Kiehn, Ibeo Automotive Systems GmbH

12:30 "Mastering Autonomous Systems with up to 40Gbit of Measurement data? – A modular approach"
Alexander Noack, b-plus GmbH

12:55 In the fast lane to autonomous driving
Gregor Hordys, dSpace GmbH

13:20 Safe Automated Driving enabled by Next-Generation Automotive RADAR for High Resolution Object Recognition
Peter Voss, Analog Devices GmbH

13:30-14:30 Panel Discussion: Technology as driver & enabler of Smart Mobility Solutions
Keynote: Trevor Storey (Meddlesex UK),
Panel Host: Andreas Knie (InnoZ)

14:30 Tbd
Tbd, Autonomos GmbH

14:55 "Designing a 77 GHz Radar Sensor? Have you considered your Printed Circuit Board Influence?"
John Coonrod, Rogers Corporation

15:20 Business models and solutions with private and shared PELVs (personal electric light vehicles) in urban micro-mobility
Andreas Nelskamp, RYDIES - urban micro mobility/
viaMAXI GmbH & Co. KG

15:45 How to implement Connected Vehicle Gateway in a Secure and Safe Manner?
Mikko Hurskainen, LinkMotion Ltd.

16:10 How to Secure Automotive Applications in a Connected Car
Ciwan Gouma, SYSGO AG

16:35 Last Generation Hacking techniques and tools for Connected Cars Security Testing
Marco Graia, Live Reply GmbH

17:00 SW-Development for autonomous driving functions taking the example Highway Chauffeur
Armin Engstle, AVL List GmbH

17:25 Tbd
Tbd, BeMyApp

17:45 Volvo Cars development of Autonomous Vehicles, in cooperation with Uber and Zenuity
Kent Melin, Volvo Car Group

18:00 End of 1st tradefair day

DAY 2, JULY 6, 2017

09:00 "Virtualization of Heterogeneous Electronic Control Units Testing and Validating Car2X Communication"
Johannes Wagner, ETAS GmbH

09:25 Mastering Present and Future Challenges in V2X Testing
Alain-G. Vouffo Feudjio, Spirent Communications

09:50 Testing methods for V2X systems
Manfred Miller, NORDSYS GmbH

10:15 Safe and Secure Stahdaten-Service Provided by SteelData-IT-Backend
Uwe Beher, ESG Elektroniksystem- und Logistik GmbH

10:40 Empowering automotive innovation
Robert Nahm, Microsoft Deutschland GmbH

11:05 Automotive Intrusion Detection and Prevention System (IDPS) - Continuous Protection as part of the Automotive Security Lifecycle
Jan Holle, escrypt GmbH

11:30 Enabling Secure Over-The-Air Updates
Christopher Tubbs, Green Hills Software GmbH

11:55 A Systematic Approach to Automated Data Annotation
Matthias Zobel, CMORE Automotive GmbH

12:20 Objectification Technology of Perceived Safety & Comfort during Assisted Driving
Erich Ramschak, AVL List GmbH

12:45 A mobile app, some drivers and a massive country: the magic of AI in building High-Accuracy Maps in six months
Philipp Kandal, Telenav GmbH

13:10 High-definition reference maps for autonomous driving – production, challenges and future developments
Gunnar Gräfe, 3D Mapping Solutions GmbH

13:15-14:30 Panel Discussion: Data driven Urban Mobility Tech Round
Keynote: Andreas Mai (Keolis USA),
Panel Host: Lutz Heuser (the urban institute)

14:30 Tbd
Tbd, BMW AG

14:55 Smart Antenna & Hypervisor: Secure convergence of connected devices
Olaf Schmidt, OpenSynergy GmbH

15:20 Seamless integration of heterogeneous automotive busses into Linux
Francis IELSCH, Microchip Technology Germany GmbH

15:45 Advanced 3D for Embedded Automotive Displays
Stephan Häfele, Altia Inc.

16:10 The Emergence of Adaptive AUTOSAR in Autonomous Drive & Infotainment
Thomas Winkler, Arccore GmbH

17:00 End of the lecture program



Start-up Pitch at the Start-up Area

These are the companies exhibiting at the Start-up Area:

DIBOTICS, Drust, Geospin GmbH, GHM Mobile Development GmbH-Free2Move, Graphmasters GmbH, inno2grid GmbH, Mobiag, Lda, NectOne UG, Parkbob GmbH, RYDIES - urban micro mobility, Third Space Auto, Toposens GmbH, Trive.me, Ubeeqo GmbH, Urban Software Institute GmbH, xdi360 GmbH, Xenomatix N. V.

Start-up Pitch

As a part of the Start-up Area there will be a Start-up Pitch giving the participating companies the opportunity to challenge their latest products and services to a high ranked jury. The Start-ups have just a few minutes to present their ideas to the jury.

We are proud to announce the following jury members:

Thilo Koslowski, CEO of Porsche Digital GmbH; **Thomas Becher**, Vice President Business Development of TomTom Telematics BV.; **Stephan Jacquemot**, Audience Evangelism Manager of Microsoft Deutschland GmbH; **Henri Kühnert**, Co-Founder and Partner, building10 Servicegesellschaft mbH

The Start-up Pitch will be hosted by the Finnish mobility trailblazer **Mrs. Sonja Heikkilä**.

The first winner team can look forward to a 120,000 Euro Cloud Capital from Microsoft Deutschland GmbH and an invitation to Microsoft in Munich. The second winner team can participate at the International Start-up Incubator and Accelerator based in Brussels, Globally Connected, International Talent (organized by B-Sprouts).

Additionally to the Start-up Pitch you can listen to exciting lectures at the Start-up Forum hosted by Andreas Nelskamp, RYDIES - urban micro mobility.

WITH THE KIND SUPPORT OF



Panel Discussion "Mobility"

Visit the Panel Discussion "Mobility" at the ConCarForum 2017 where experts of the industry will discuss the following issues:

Issue July 5, 2017: Technology as driver & enabler of Smart Mobility Solutions

Booming concepts like carsharing, ride hailing and other new mobility trends are also based on innovative technologies. Latest hard- and software tools allow customers to instantly search, book and pay for these services. It also enables new players to enter the market quickly. Operators and providers will discuss different solutions.

Issue July 6, 2017: Data driven Urban Mobility Tech Round

Data is the driver not only for new business models and Start-ups, it also brings efficiency and convenience for commuters and travelers. Autonomous buses, shared taxis and other transportation models rely on data, but also generate mobility data. Listen to interesting case studies from the UK, France and Germany.

MEDIAPARTNER



24 hour Hackathon

Developer teams will hack and compete to create connected mobility solutions in only one day during ConCarExpo's own hackathon! Challengers will battle it out to take home 7,000 Euro in prizes and present their project to the visitors on the second show day of the expo. The hackathon will be presented by one of the leading Hackathon organizers BeMyApp. Fast Innovation at its finest!



Organizer



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